GOBIERNO DE CHILE
MINISTERIO DE
AGRICULTURA
INIA

INIA
TAMEL AIKE

GOBIERNO DE CHILE
FUNDACION PARA LA
INNOVACIÓN AGRARIA

PROGRAMA DE FORMACION PARA LA INNOVACION AGROPECUARIA
APOYO A LA PARTICIPACION EN ACTIVIDADES DE FORMACION
CONVOCATORIA ESPECIAL

XV CONGRESO MUNDIAL DE LA CARNE 2004

WINNIPEG CANADA

Propuesta FIA-FP-L-2004-1-P-020

INFORME TECNICO

COYHAIQUE, AGOSTO DE 2004

El presente documento incluye la información recopilada en la asistencia al **XV Congreso Mundial de la Carne 2004**, realizado en Winnipeg Canadá. El autor quiere expresar los agradecimientos al **Fondo de Innovación Agraria (FIA)**, que a través de su Programa de Apoyo para la Innovación Agropecuaria hizo posible la asistencia a este importante evento mundial de formación. Asimismo, se agradece el apoyo del **Centro Regional de Investigación Tamel Aike, del Instituto de Investigaciones Agropecuarias (INIA)**, quien apoyó al autor con la suplementación de financiamiento requerido.

Este informe incluye dos partes. La primera comprende el **Informe Técnico**, con la descripción de la información más relevante obtenida durante la asistencia al congreso. La segunda parte comprende el **Informe de Difusión**, que describe las actividades de difusión comprometidas durante la ejecución. Finalmente, se incluyen **Anexos** con información relevante, además de un **CD** con archivos de información de presentaciones, la versión electrónica de este informe, como también otro **CD** con información general de Manitoba, Canadá.

Christian Hepp Kuschel

Ing. Agr. MPhil PhD
INIA Tamel Aike
Coyhaique
Región de Aysén
Patagonia – Chile
Casilla 296 – Coyhaique
chepp@tamelaike.inia.cl

INTRODUCCION

Cada dos años, profesionales relacionados con los rubros de la carne procedentes de todo el mundo se reúnen en el Congreso Mundial de la Carne, organizado por el Secretariado Internacional de la Carne (IMS), para intercambiar ideas, encontrarse con sus pares de otros países, discutir el estado de la industria, y para analizar las tendencias y factores que incidirán en su futuro.

Expertos de reconocido prestigio en el rubro se dirigen a los delegados, se organizan reuniones del IMS por rubro específico, para analizar los aspectos que afectan cada rubro en particular, o bien a zonas geográficas específicas (Comités de bovinos, ovinos y cerdos, p.ej).

El IMS está gobernado por una asamblea general, con un consejo electo de directores y un consejo directivo encabezado por un presidente y dirigido por un secretario general, desde sus oficinas centrales en París, Francia. IMS representa al rubro de las carnes en foros mundiales de la FAO, OIE, WTO, WHO y OECD.

El presente informe describe la asistencia al Congreso Mundial de la Carne, Winnipeg Canadá, 2004.

ANTECEDENTES GENERALES

Lugar y Fechas

El XV Congreso Mundial de la Carne 2004, se desarrolló en la ciudad de Winnipeg, capital de la Provincia de Manitoba, Canadá, entre el 14 y 17 de junio de 2004. Esta provincia se ubica en el centro de Norteamérica, en el área conocida como las grandes planicies centrales de Canadá. Un paisaje con relieve extraordinariamente plano, dominada por áreas cultivadas, especialmente cereales, oleaginosas, maíz, lino y otros cultivos extensivos. La industria de recría y engorda de carne bovina y porcina es de gran importancia, asociada a la alta disponibilidad de granos y otros subproductos de la agricultura. El clima es continental, con veranos templados, pero inviernos muy fríos, en que las temperaturas pueden bajar de 55 grados Celsius bajo cero. Winnipeg se ubica a unos 100 km al norte de la frontera con Estados Unidos.

Tema central del congreso

"La industria mundial de la carne en una encrucijada" es el gran tema del congreso, con especial énfasis en mirar a la industria como un todo, con la necesidad de tener un sistema que pueda considerar aspectos centrales como la seguridad alimentaria y la salud animal, que sea racional y esté basado en fuertes principios científicos.

OBJETIVOS

La asistencia al XV Congreso Mundial de la Carne 2004 tuvo los siguientes objetivos:

Generales

Obtener información y referencias de primera línea en el ámbito de la producción, comercialización y tendencias del rubro de carnes a nivel mundial.

Específicos

- Conocer el estado actual y proyecciones futuras del negocio de la carne mundial, especialmente bovina y ovina.
- Obtener información que permita orientar criterios de investigación y desarrollen el rubro cárnico ovino y bovino.
- Conocer las tendencias de corto, mediano y largo plazo en cuanto a productos ofrecidos y demandados en los mercados mundiales.
- Conocer adelantos tecnológicos en el ámbito de la producción de carne en las fases de crianza, engorda y procesamiento.
- Enriquecer la red de contactos internacionales en el ámbito del rubro carne.
- Participar en instancias de discusión en torno a la temática de la carne bovina y ovina.

TEMAS DE LAS CONFERENCIAS

El congreso se realizó en el Centro de Convenciones ubicado en el centro de la ciudad de Winnipeg. Estuvo organizado en diferentes conferencias plenarias, las que se refirieron a diferentes temas específicos de interés y actualidad en el rubro de las carnes (véase también archivos en CD adjunto):

- La competencia creciente en mercados de las carnes
- El mundo quiere carne
- Satisfacción del consumidor
- Nuevas guías para el manejo higiénico de la carne
- Seguridad alimentaria y enfermedades relacionadas al alimento
- Trazabilidad – la llave para la producción moderna de carnes

COMENTARIOS RESPECTO A LAS PRESENTACIONES

A continuación se comentan los aspectos que se consideraron más relevantes de las conferencias señaladas. La mayoría de las presentaciones se encuentran *in extenso* en el CD adjunto a este informe. Asimismo, se han incluido en anexos el material entregado.

El mundo quiere carne

El consumo global de productos animales ha aumentado, producto del aumento de mejores ingresos, incluso en países de desarrollo intermedio. Los carbohidratos empiezan a ser reemplazados por proteínas animales, y este mayor nivel de ingresos va aparejado con mayor exigencia, al demandarse más elección. Todo ello ha llevado también a generar cambios en la estructura de la industria de carnes. Hay mayor disponibilidad de carne y éstas tienden también a ser más baratas.

"Qué hay de almuerzo?: Pollo o carne de vacuno?". Esta pregunta está cada vez más latente en el mundo, en que la carne de ave aumenta cada vez más su participación. La oferta de carnes al consumidor aumenta al "achicarse" el mundo: De sólo un 2% de las carnes producidas en la década del 80, el 2003 se subió a un 9% de la producción mundial transada en mercados de exportación.

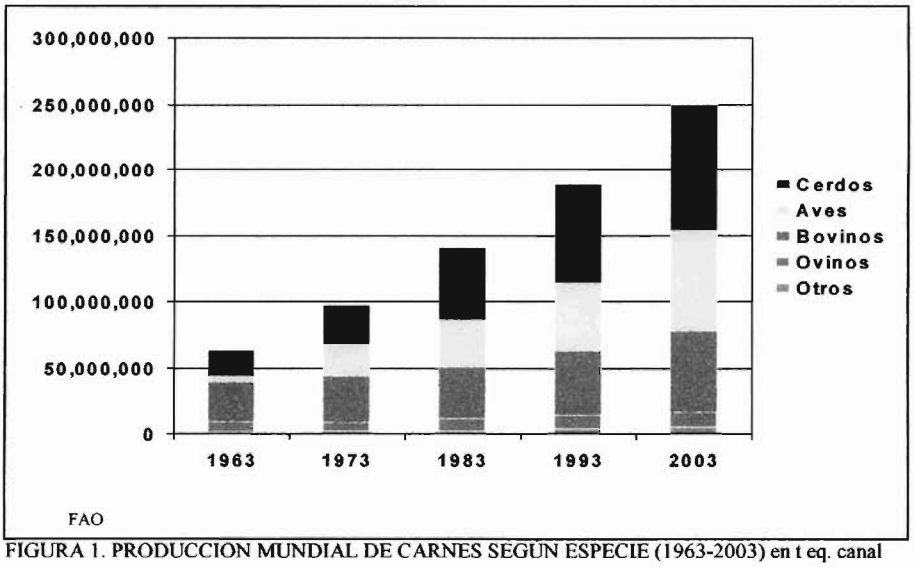


FIGURA 1. PRODUCCION MUNDIAL DE CARNES SEGUN ESPECIE (1963-2003) en t eq. canal

Producción y Consumo de Carne

La producción mundial de carnes ha aumentado casi cuatro veces en los últimos cuarenta años. Este aumento ha estado comandado especialmente por los aumentos registrados en las carnes de cerdo y de aves (figura 1).

Estudios de FAO (2004) indican que el consumo de carne bovina en el mundo representaba el 34% del total de carne. Este porcentaje ha ido descendiendo a 31% en 1991, 26% en el 2000 y para el 2010 se proyecta llegue a 24%. Por otro lado, el consumo mundial de carne de ave ha seguido una tendencia opuesta, con 19% de participación en 1980, para llegar a 31% en 2010. El cerdo es la carne más consumida en el mundo, con participaciones estables del orden de 40% en todo el período analizado, mientras que otras carnes tienen consumos muy inferiores, del orden de 7%.

El consumo *per capita* de carne bovina en el mundo es de 12 kg (FAO, 2002). Sin embargo, existe una gran dispersión, con países de alto consumo como Uruguay (65 kg) y Argentina (64

kg), USA (44 kg); países con consumos intermedios como la Unión Europea (19 kg) y Nueva Zelandia (23 kg); y otros con consumos muy bajos, como China (4 kg). Chile está entre los países de consumo intermedio, con aproximadamente 23 kg *per capita*. Los bajos consumos en algunos casos están explicados por motivos religiosos (ej. India con menos de 2 kg) y/o económicos.

Las proyecciones de consumo de carne para las próximas décadas indican un aumento en términos globales, en que el consumo de carnes en su conjunto se incrementará en 16% (1993 *vs* 2020), mientras que para bovinos será de sólo 9% en el mismo período. Lo que es interesante es que los incrementos serán muy dispares según grupos de países. Los países desarrollados aumentarán su consumo total de carne en 7% y de bovino en sólo 2% en ese período, mientras que los países en desarrollo lo harán 43% y 40%, respectivamente. Más aún, el aumento de los países en desarrollo está fundamentalmente explicado por los incrementos que se observan en China. Este país, que en 1983 consumía menos de 2 kg de carne bovina *per capita* en 2003 superó los 4 kg y se espera llegue a 7 kg el 2010. China tiene el 12% del consumo de carne bovina mundial y entre 1992-2004 presentó un 114% de aumento.

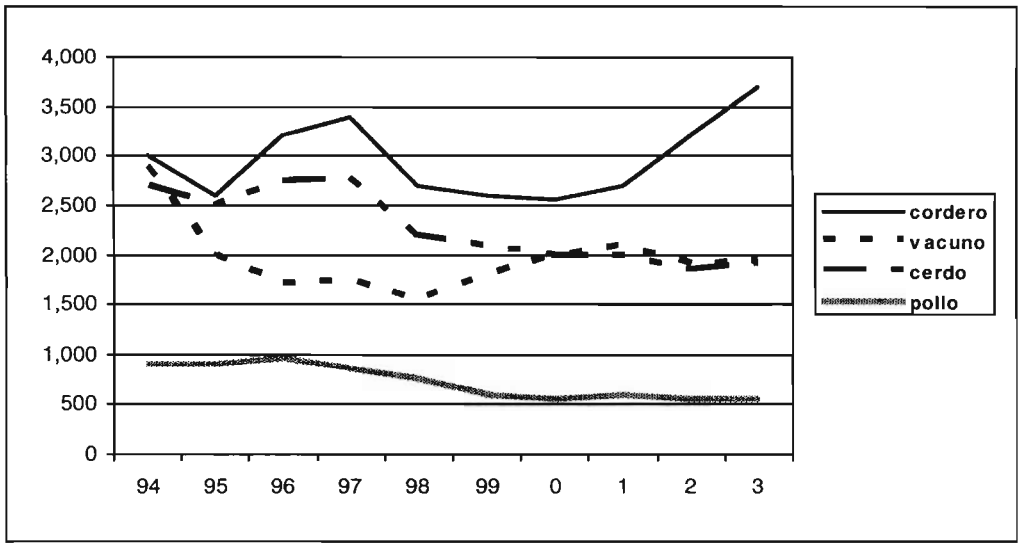


FIG. 2 VARIACION DE PRECIO DE CARNES SEGÚN ESPECIE (1994 – 2003) en US$/t eq. canal

El comportamiento de los precios de las carnes a nivel mundial se observa en la figura 2. Se aprecia que en los últimos diez años, partiendo de precios muy similares, la carne de cordero se ha ido diferenciando y en la actualidad representa aquella de mayor valor. El cerdo y el vacuno presentan precios similares, ya que el primero fue masificando su presencia en los mercados. Del gráfico resulta muy claro que la carne de ave compite fuertemente con todas las demás por precio.

El crecimiento de la población y el ingreso mundial en los próximos diez años será diferente según continente. Al respecto, Norteamérica y Europa proyectan los menores crecimientos de población (2-5%), mientras que el ingreso subirá entre 19 y 23%. Tanto el crecimiento de población (56%), como el del ingreso (48%), estarán liderados por Asia, donde se concentra también las mejores expectativas de aumento de consumo de carnes. Sudamérica presenta proyecciones muy inferiores, con un aumento poblacional de 9% y aumento de 7% en el ingreso *per capita*.

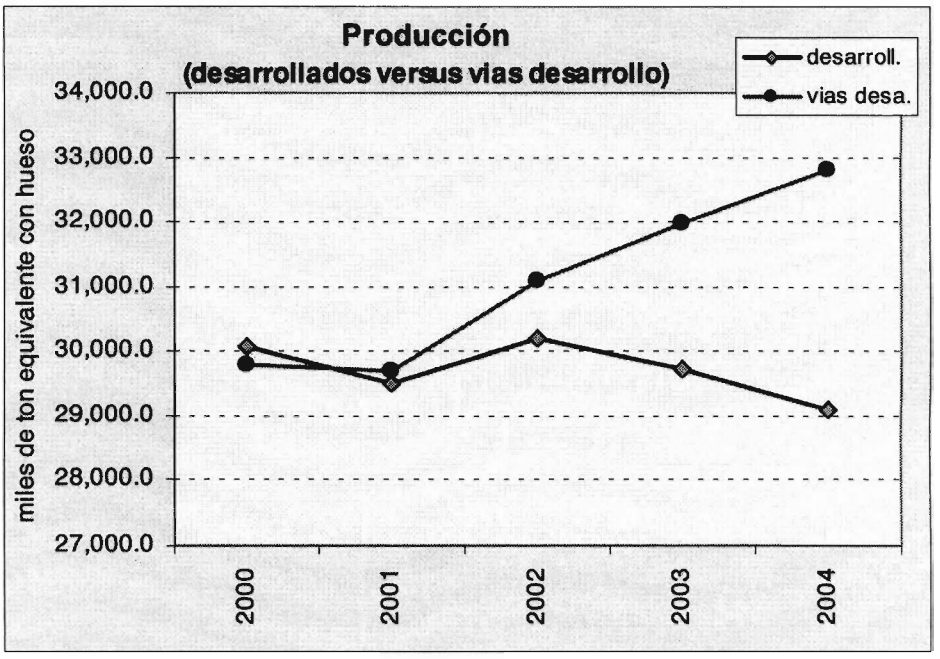


FIG. 3. PRODUCCION MUNDIAL DE CARNE BOVINA SEGÚN GRUPO DE PAISES

Los aumentos en producción mundial de carne bovina en los últimos cuatro años han estado explicados fundamentalmente por lo ocurrido en los países en vías de desarrollo (figura 3).

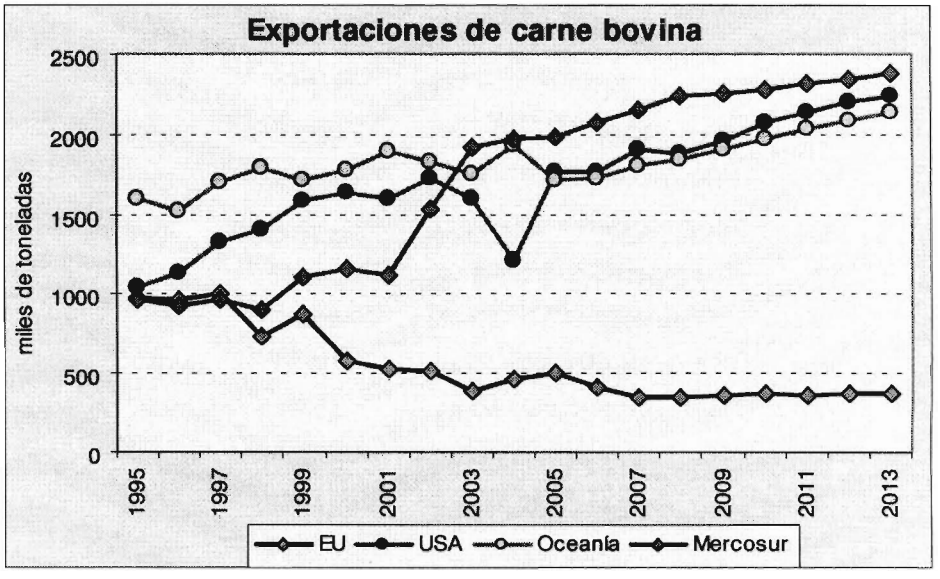


FIG. 4. EXPORTACIONES DE CARNE BOVINA (1995-2013) SEGÚN GRUPOS DE PAISES

Las exportaciones de carne bovina son lideradas en la actualidad por el MERCOSUR y se proyecta que dicha situación se mantenga durante la próxima década, superando claramente a Oceanía y Estados Unidos. Este último sufre una caída importante el 2003, producto de un caso de EEB detectado, situación que se extiende por varios años en su influencia sobre las exportaciones de carne bovina. Europa ha ido decayendo

notoriamente desde la década del 90, para pasar en la actualidad a ser un importador neto de carne bovina (figura 4).

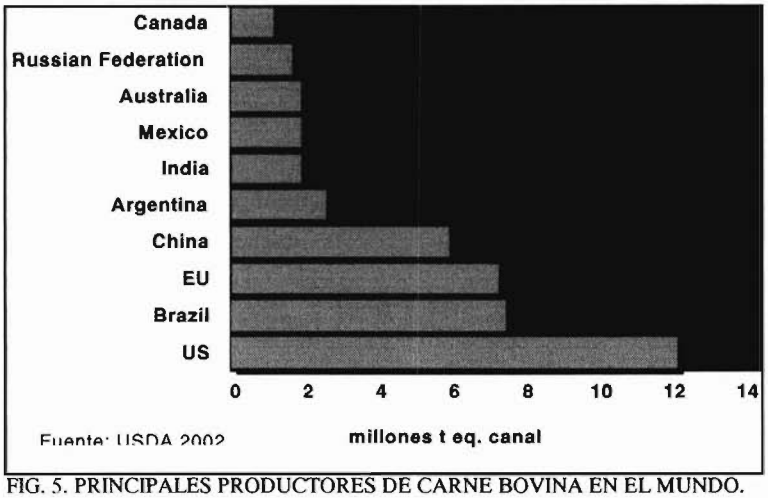


FIG. 5. PRINCIPALES PRODUCTORES DE CARNE BOVINA EN EL MUNDO.

Los diez principales productores de carne bovina del mundo se señalan en la figura 5. Estados Unidos es el mayor productor, ya que reúne aproximadamente un quinto de toda la producción mundial. Luego es seguido por Brasil, la Unión Europea y China. Otros seis países siguen con producciones sustancialmente menores.

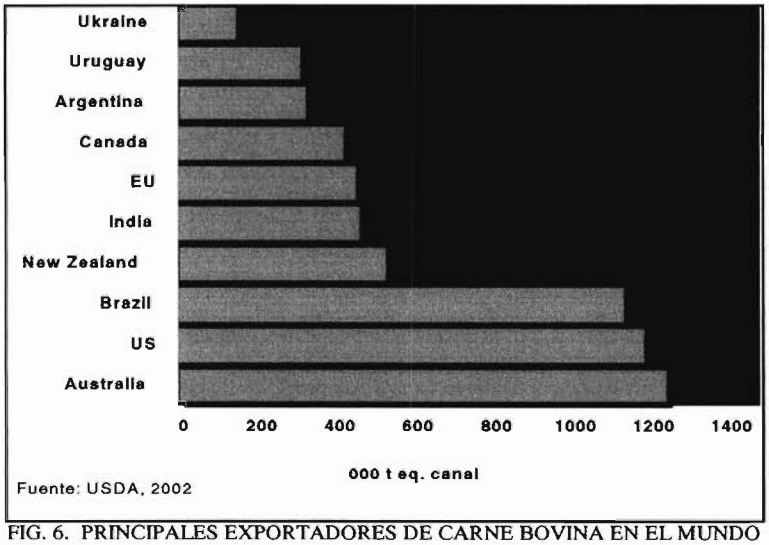


FIG. 6. PRINCIPALES EXPORTADORES DE CARNE BOVINA EN EL MUNDO

Los principales exportadores de carne bovina se presentan en la figura 6. Tres países se disputan el primer lugar, Australia, Estados Unidos y Brasil, aunque recientes estadísticas (2004) indican que este último país ya ha superado a Australia y Estados Unidos. Otros siete países tienen importancia como exportadores, aunque con cifras inferiores a los anteriores.

Situación en los grandes bloques

Unión Europea

El sector carnicol ha perdido competencia en el interior de la Unión Europea. En parte se debe a regulaciones de bienestar animal y de medio ambiente que son cada vez más estrictas. A ello se agregan opciones de políticas agrícolas que desalientan la ganadería intensiva, privilegiando la extensificación de los sistemas productivos. Los nuevos países que pasaron a integrar la Unión (UE25), pueden estimular la industria de la carne, sin embargo ello se espera para el mediano o largo plazo.

China

En China se está produciendo un crecimiento explosivo de carne, en una situación de consumo subsidiado. Se está tendiendo a una occidentalización rápida, que cambia el modelo de consumo por carne. Sin embargo, la pobre salud animal y débil estructura de seguridad alimentaria, son grandes obstáculos para un desarrollo más acelerado. China tiene la gran ventaja de un enorme mercado interior en expansión, junto con factores productivos de bajo precio. Todo ello significa un gran atractivo para la inversión extranjera.

Oceanía

Australia y Nueva Zelandia presentan como principal ventaja un muy buen estándar sanitario (libre de EEB y fiebre aftosa). Además cuentan con adecuados y eficientes sistemas de trazabilidad. Son países orientados hacia la exportación, ya que cuentan con rebaños de gran tamaño (ovino y bovino), baja población y alta eficiencia productiva. Están orientados especialmente a la producción de novillos, vaquillas y corderos. Poseen un bajo costo de producción de la carne ya que se sustenta casi exclusivamente en las praderas. Oceanía domina el mercado global del cordero, un nicho de alto precio. También poseen la atractiva ventaja de su cercanía a los mercados asiáticos.

Norteamérica

La percepción mundial de producción y exportación de novillos norteamericanos muy sanos, ha cambiado radicalmente con posterioridad a los casos de encefalopatía espongiforme bovina (EEB) en 2003 (1 caso en Alberta, Canadá y otro en Washington, USA). Se desarrolló una fuerte presión internacional que conduce a la adopción de salvaguardas de alto costo, para demostrar reacción ante la EEB y tratar de recuperar imagen-confianza. Posturas más resistentes de los mercados mundiales aíslan a la industria del bovino de USA, generándose situaciones de medidas paraarancelarias, basadas en aspectos sanitarios.

El eficiente sistema de trazabilidad implementado en Canadá en 2001 permitió una rápida detección del caso de EEB en Alberta. Ello demostró posbeneficios de dicha implementación. Si bien el caso de EEB ha dado oportunidad para mejorar la sanidad del ganado, se estima que la crisis de EEB tendrá efectos aún por varios años más.

Brasil

Brasil ha trabajado fuertemente para lograr un notorio progreso en la erradicación de fiebre aftosa. Esta situación ha ayudado a reforzar un plan de exportaciones de carne bovina que creció un 284% entre 1998 y el 2003.

Por otra parte, las exportaciones de cerdo han aumentado 5,7 veces en los últimos cinco años Brasil tiene aún un alto potencial como país exportador y ya en 2003 pasó a ser el primer exportador mundial de carne bovina (Cuadro 1).

	1995	2000	2001	2002	2003
Otros países	3,290	2,869	2,529	2,929	2,747
U.S.A.	826	1,119	1,029	1,110	1,144
Australia	1,109	1,338	1,398	1,365	1,261
Brasil	228	592	858	979	1,277

CUADRO 1. EXPORTACIONES CARNE BOVINA (EU BEEF FORECASTING GROUP)

El MERCOSUR es el principal proveedor de carne bovina a la Unión Europea, dominado por Brasil (55,4%), Argentina (18%) y Uruguay (5,3%). En su conjunto, proveen el 78,7% de la carne que importa la UE.

	1997	1998	1999	2000	2001	2002	2003
ARGENTINA	2712	2469	2720	2718	2461	2700	2800
BRASIL	6050	6140	6050	6300	6820	7240	7385
PARAGUAY	226	231	246	238	200	205	215
URUGUAY	468	454	420	450	371	412	424
MERCOSUR	**9456**	**9294**	**9436**	**9706**	**9852**	**10557**	**10824**

CUADRO 2. PRODUCCION CARNE BOVINA EN EL MERCOSUR (1997-2003) (Fuente FAO, USDA)

En cuanto a producción de carne bovina, el MERCOSUR ha aumentado un 14,5% su producción entre 1997-2003, llegando a representar más del 15% de la producción mundial. El aumento del MERCOSUR se ha debido casi exclusivamente al incremento de 22% en la producción de Brasil (97-03), ya que los demás países muestran leves descensos (Paraguay, Uruguay) o bien recuperaciones leves (Argentina) (Cuadro 2).

	1993	1998	1999	2000	2001	2002	2003
BRASIL	448	370	541	554	789	929	1194
ARGENTINA	283	291	339	343	150	329	338
URUGUAY	108	279	246	279	177	259	320

CUADRO 3. EXPORTACIONES DE CARNE BOVINA DESDE EL MERCOSUR (Fuente: IMS, GIRA)

Las exportaciones del MERCOSUR en los últimos diez años han aumentado considerablemente. Nuevamente, el mayor incremento es producto del aumento de más de 2,5 veces de las exportaciones de Brasil (cuadro 3). De las exportaciones del MERCOSUR, además de la UE, Chile es un destino importante, recibiendo por ejemplo el 11% de la carne exportada por Brasil en 2003.

Políticas en sector carne

En los mercados de exportación de carnes, aún se observan altos niveles de protección y apoyo a la agricultura (subsidios), lo que genera distorsiones sobre la producción y el comercio, afectando los precios y mercados. Los avances en reformas de políticas son lento, aunque ya se empieza a apreciar algunos gestos, como la UE, que está tendiendo a la baja en los subsidios a

la carne en el mediano plazo, a través de una reingeniería completa de sus políticas de apoyo a la agricultura comunitaria.

Los tratados de libre comercio, en los que Chile ha sido un agente muy exitoso a nivel mundial, ofrecen oportunidades importantes en el corto y mediano plazo, mientras aún existan grandes distorsiones en los mercados mundiales de la carne. Recientemente, en la ronda de Doha, la agenda incluyó algunos énfasis como la facilitación de los accesos a los mercados, poniendo un foco en la situación de los países en desarrollo.

Satisfacción del consumidor

La industria de la carne se ha desarrollado y ha cambiado para adaptarse a la sociedad moderna. Se han producido cambios en los hábitos familiares, cuyo consumo se produce ahora con tendencia hacia menores tiempos de preparación de comidas (mayor conveniencia). Ello ha estado ligado a la aparición del "fenómeno supermercado" y la desaparición del carnicero de barrio.

La mayor conveniencia en el consumo de carnes está ligado a la menor capacidad de almacenar carnes en el hogar, cambio hacia alimentos preparados con ofertas atractivas que estimulan la compra "impulsiva" (no planificada) en supermercados (por atractivo, tentación). También se busca evitar lavar mucho post comidas y ofrecer variedad a los diferentes miembros de la familia. El consumidor exige productos seguros, lo que es transmitido por marcas de prestigio.

El consumidor busca sentir placer al comer carne, la que debe asegurar sanidad, ser conveniente en su presentación y estar basada en producciones éticamente aceptables.

El incremento del consumo de carne depende generalmente de aumentos de población, de mejora en el ingreso de las personas y de la capacidad de elección (variedad). Factores como confianza, mercadeo, precio relativo, sanidad, cultura y hábitos tienen también su participación. En la actualidad, la relevancia del factor *confianza* y *sanidad* está resaltada, sobre todo frente a situaciones de crisis.

Seguridad alimentaria

La seguridad alimentaria es en la actualidad una preocupación global. Situaciones como la contaminación de alimentos por agentes patógenos como *Salmonella, Listeria, E.coli*, y cólera, además de enfermedades como la EEB y la fiebre aftosa, son elementos que gobiernan hoy en día la situación de mercados internos y de exportación. Existe asimismo un movimiento y preocupación por las aplicaciones de biotecnología en los alimentos, como son los organismos genéticamente modificados. El uso de hormonas es otro punto relacionado con la seguridad alimentaria, llegándose a prohibiciones en grandes bloques importadores como la UE, lo que determina sistemas de producción en países exportadores que acceden a dicho mercado.

Carnes orgánicas y sellos de calidad

Existe bastante controversia en lo referente a las carnes orgánicas. En países de muy alto ingreso *per capita,* donde existe además un alto nivel de educación y cultura en su población,

como es el caso de Austria y Suiza, es esperable una mayor percepción del público frente a carnes de tipo orgánico. No obstante, aún en este mercado *elite* la carne orgánica es un nicho pequeño (1-2% del mercado), con premios de 10-20% en precios a productor y 30-40% de sobreprecio a nivel de consumidor. El grupo de consumidores que está dispuesto a pagar este diferencial es escaso, al no percibirse una clara diferencia entre el producto orgánico y el producto normal. Es decir, aún en países de muy alta sensibilidad al tema ambiental, el nicho de mercado orgánico es pequeño, aunque puede ser interesante para productos especiales.

Al respecto, existe también una contradicción entre la percepción como *ciudadano*, el que exige componentes como bienestar, ética, pureza, calidad y conveniencia en los productos, de aquella que tiene aquel mismo individuo como *consumidor*. Este último se fijará principalmente en el precio y tenderá a comprar lo más barato. Esto es un componente difícil de cambiar y que tiene también variaciones geográficas.

Es necesario enfocar el desarrollo de productos a lo que desea el consumidor. Más que productos orgánicos, la tendencia pareciera ser la producción de carnes con sellos de calidad, que aseguran un producto de calidad, con características especiales, según de lo que se trate. Ello lleva a la segmentación del mercado, buscando diferentes productos que se ajusten a los requerimientos variados de diferentes tipos de consumidor. El futuro presenta el desafío de la diferenciación de productos cárnicos, alejándose de la carne como un mero *commodity*.

Trazabilidad

La trazabilidad completa de productos es la llave de la producción moderna de carnes, y está siendo aplicada por la mayoría de los países líderes en exportación de carnes, con diferentes niveles de complejidad. Luego de la crisis de EEB en la década de los 80 en Europa y su reaparición en 1996, la trazabilidad tuvo un desarrollo muy grande en dichos países. Hoy se considera esencial para penetrar en mercados exigentes. Países como Canadá y Australia están con sistemas eficientes implementados, mientras que Estados Unidos está en proceso de implementación.

Situación de la carne ovina en principales países

El consumo *per capita* de carne ovina en el mundo es de sólo 2 kg. La dispersión de consumo entre países es muy alta, con niveles elevados en países como Australia, Nueva Zelandia (14-16 kg *per capita*) y Uruguay (8,5 kg), niveles promedios en Argentina, países bálticos y México (cerca de 2 kg), y niveles muy bajos en países como Japón y Estados Unidos (menos de 1 kg *per capita*).

<u>Australia</u>

Australia tiene el menor rebaño ovino desde 1946, lo que se ha debido fundamentalmente a la ocurrencia de amplias zonas afectadas por sequías. Se proyecta un descenso de 8% en el sacrificio de corderos para el período 2003/2004. Se está privilegiando la producción de corderos, que implica mayor intensificación de sistemas. Se estima que la población ovina continuará decayendo en el 2004, para luego aumentar en el orden de 1-2% anual. Se continuará promoviendo la exportación de cordero (57% más para 2007) y Australia apuesta también a aumentar el consumo interno de ovino, que se prevé pueda llegar a niveles de 35%

de incremento para el 2007. Junto a ello, Australia continúa exportando animales vivos, especialmente ovejas, a niveles de 5-6 millones anuales.

Nueva Zelandia

Similar a lo reportado para Australia, Nueva Zelandia presenta en la actualidad su menor rebaño de los últimos 48 años, también afectado por problemas de sequías, pero también producto del desplazamiento de sistemas ovinos por la producción de leche bovina. La marca/ y sacrificio de corderos ha descendido del orden de 5-8% en el período 2003/2004. También se está privilegiando los sistemas de producción de corderos, con la incorporación de razas especializadas de carne. Se prevé una mantención de la población ovina en los niveles actuales, con un aumento leve en ovejas de cría y aumentos moderados en productividad cordero, obtenidos con la intensificación de los sistemas productivos. A pesar de la disminución de población ovina, los retornos para Nueva Zelandia han sido atractivos, debido a precios y la situación de alto valor relativo del dólar neocelandés.

Unión Europea

El censo ovino 2003 de la UE registró una caída de aproximadamente 1%. En los mayores rebaños europeos las situaciones son dispares, con una caída de 1% en el Reino Unido, 2% en Francia, 3% en España, leve baja en Italia y una situación estable en Irlanda y Portugal. La incorporación de nuevos países a la Unión Europea no ha tenido gran influencia, aunque países como Hungría han aumentado en 16% su rebaño, pero con una población ovina de sólo 1,3 millones. Las perspectivas en Europa estarán dominadas por una oferta disminuida de carne ovina, con un proceso de reconstrucción de rebaños después de la crisis de fiebre aftosa sufrida, lo que hace augurar una situación de precios mayores.

Estados Unidos

Estados Unidos tiene una población de sólo 6 millones de ovinos, los que continúan disminuyendo. El consumo *per capita* es bajo pero estable. El déficit de demanda interna es suplido por importaciones, las que provienen en un 99% desde Nueva Zelandia y Australia. Los precios de cordero se presentan firmes, con una competencia entre los dos principales proveedores, aunque el costo de los insumos está presionando al alza (alimento, granos). Las prespectivas estarán influenciadas por la recuperación económica del país. Hay un impacto de los paquetes de asistencia a la producción interna de carne de cordero. El gran desafío está en la búsqueda de mercados para productos de carne ovina diversificados. Producto de la situación de emergencia sanitaria vivida recientemente por el caso de EEB en Canadá, se provocó un freno a la importación de animales vivos desde ese país.

Tendencias generales y perspectivas de la carne ovina

Se observa un reposicionamiento del cordero en los mercados mundiales. La situación de oferta mundial de carne ovina (especialmente cordero) es plana, frente a una demanda mundial incrementada. El desafío para asegurar éxito comercia está en suplir las demandas del consumidor, que está cada vez más exigente. Es esencial cuidar cada paso de la cadena de producción, procesamiento y comercialización, asegurando calidad total. Ello incluye conceptos y sistemas de trazabilidad y seguridad alimentaria. Como ha ocurrido en otras carnes, la tendencia será moverse desde un producto tipo *commodity* a un producto con valor agregado.

DESAFÍOS DEL SECTOR CÁRNICO EN EL MUNDO

La principal preocupación en la actualidad está sin duda en el ámbito de la influencia de las enfermedades y su relación con la seguridad alimentaria. Continúa asimismo una influencia demasiado pesada en el tema de subsidios y barreras arancelarias y para-arancelarias, que los países deberán seguir debatiendo y buscándose la apertura mayor de los mercados.

Se prevé un aumento en las alertas sanitarias, como también en la limitación y fiscalización del uso de hormonas y de organismos genéticamente modificados. En este sentido, la calidad y seguridad del producto son claves para el éxito. Se espera un número creciente de exportadores De carne, mientras que se intensificará una fuerte competencia global del cerdo y pollo. Los mecanismos o sistemas de trazabilidad serán cada vez más exigidos y habrá una tendencia a la aparición de marcas específicas de carnes. La preocupación social relacionada con los productos cárnicos será otra área que se desarrollará, en relación al medio ambiente y el bienestar animal.

Se observa un desarrollo hacia la liberalización del comercio, aunque en algunos bloques, especialmente asiáticos (Japón, Corea) es aún demasiado lento el avance. Existe la tendencia a que se sigan usando factores de sanidad animal y seguridad alimentaria como medida para-arancelaria. En ese sentido, se debiera usar la base científica y conocimiento existente para limitar lo anterior.

CONCLUSIONES

- El crecimiento de los países estimulará la demanda por carnes: Los precios futuros estarán limitados por una expansión moderada del mercado global y la fuerte competencia de los países en vías de desarrollo.
- Si las negociaciones de la Ronda de Doha son positivas, se espera reformas de políticas internas (disminuir subsidios y aranceles), lo que mejoraría el mercado de la carne, beneficiando a los países en vías de desarrollo
- El impacto actual de la EEB es fuerte, pero será moderado en el mediano plazo. Se espera que el efecto fiebre aftosa se minimice en el mediano plazo.
- Existe un fuerte aumento de competencia para los países desarrollados, por parte de los países en vías de desarrollo.
- El beneficio para el mercado bovino estará limitado por los bajos precios esperados para la carne de cerdo y de aves, siendo esta última la más competitiva. Sin embargo, los precios de ovinos desde Oceanía subirán, al estar limitada la oferta, frente a una demanda creciente.
- La UE tiende a transformarse en un importador neto, mientras Brasil se proyecta como el mayor exportador de carne bovina del mundo.

COMENTARIO FINAL

La asistencia al XV Congreso Mundial de la Carne permitió conocer la situación actual y perspectivas de la carne, especialmente bovina y ovina, en el mundo. Los esfuerzos que en el último tiempo está realizando Chile para posicionar carnes en mercados externos están bien encaminados, ya que se está trabajando paralelamente en la implementación de predios

controlados oficialmente (PABCO), se están privilegiando las buenas prácticas ganaderas, y se está iniciando la implementación de sistemas modernos de identificación y tras habilidad.

Ello sin duda que permitirá la exportación de carne de calidad a mercados exigentes y de mejor nivel de precios. Chile deberá apuntar a esos mercados, ya que el pequeño rebaño nacional y las estructuras de costo no permiten competir a nivel de mercados de *commodities* en el mundo.

GOBIERNO DE CHILE
MINISTERIO DE
AGRICULTURA
INIA

INIA
TAMEL AIKE

GOBIERNO DE CHILE
FUNDACION PARA LA
INNOVACIÓN AGRARIA

PROGRAMA DE FORMACION PARA LA INNOVACION AGROPECUARIA
APOYO A LA PARTICIPACION EN ACTIVIDADES DE FORMACION
CONVOCATORIA ESPECIAL

XV CONGRESO MUNDIAL DE LA CARNE 2004

WINNIPEG CANADA

Propuesta FIA-FP-L-2004-1-P-020

INFORME DE DIFUSION

COYHAIQUE, AGOSTO DE 2004

INTRODUCCION

Producto de la asistencia al XV Congreso Mundial de la Carne, se comprometieron varias actividades de difusión, las que se describen en el presente informe, junto con entregarse la información relacionada más relevante en el Anexo final.

ACTIVIDADES DE DIFUSION

Presentación-Charla

Esta actividad de difusión se desarrolló el 12 de agosto pasado en la ciudad de Coyhaique. Se realizó en la sala de la Asociación Chilena de Seguridad y contó con una asistencia que superó largamente las expectativas. En este sentido, el trabajo de coordinación, de invitación y reconfirmación, además de una adecuada difusión del evento fue decisivo. Se contó con una asistencia de 74 personas registradas (sin contar a organizadores y expositores). Se adjunta listado de asistencia en el Anexo.

Para la realización de esta actividad se coordinaron las exposiciones de tres especialistas, dos de ellos asistentes al congreso, según se indica en el siguiente programa:

PROGRAMA
Jueves 12 de agosto, 2004

- 10:00 – 10:45 El mundo quiere carne (Christian Hepp, Ing.Agr. MPhil PhD, INIA)
- 10:45 -11:30 Desafíos para el sector carne (Claus Köbrich, Med. Vet. PhD, U. de Chile)
- 11:30-12:00 Feedlots en Canadá (Christian Hepp, Ing.Agr. MPhil PhD, INIA)
- 12:00 – 12:45 Comercialización de la carne bovina (Ljubo Goîc, Ing. Agr. MSc, INIA)

La actividad se extendió más allá de la hora indicada de término, hasta las 13:30 horas. La excelente asistencia fue un estímulo para los expositores y el interés expresado por el público fue evidente. Las presentaciones *in extenso* se incluyen en el Anexo.

En esta actividad se contó con asistentes de diferentes sectores relacionados con el rubro de la carne:

- Empresarios crianceros y de recría-engorda
- Representantes de la agricultura familiar campesina
- Socios de la Red de Crianza Bovina de Aysén

- Industriales exportadores de carne ovina
- Industriales de mataderos
- Distribuidores de carne
- Programa de Desarrollo de Proveedores de Carne (PDP)
- Representantes de ferias de ganado
- Representantes de la Organización Ganadera Austral
- Operadores y asesores técnicos
- Profesionales agrónomos y veterinarios
- Funcionarios técnicos INDAP y SAG
- Seremi de Agricultura
- Representantes de Gobierno Regional
- CORFO Regional
- Prochile Regional
- Miembros GTT
- Técnicos y profesionales INIA
- Otros

Mesa Regional de la Carne

El 12 de agosto de 2004 se llevó a efecto la actividad denominada "Mesa Regional de la Carne", la que estuvo destinada a reunir a diferentes actores involucrados en diferentes etapas de la producción y procesamiento de carnes.

La actividad se realizó en la sala de reuniones del Gobierno Regional de Aysén entre las 15:00 y 18:00 horas y contó con la asistencia de 24 personas invitadas (véase Anexo listado asistencia), además de los profesionales que participaron en la actividad de difusión realizada con misma fecha en la mañana (Claus Köbrich, Ljubo Goic, Christian Hepp).

Para situar la discusión en contexto, se inició la mesa de trabajo con el planteamiento de una serie de preguntas, todas ellas atingentes a la realidad de la Región de Aysén en lo que respecta a la producción y comercialización de carne bovina (ver cuadro). La intención no fue responder las preguntas una a una, sino más bien estimular la discusión y participación entre los asistentes.

Entre los aspectos tocados por los asistentes, se puede destacar los siguientes:

- Se consulta qué ocurre con la Organización Ganadera Austral (Ogana), ya que debería asumir un rol más protagónico en lograr un mayor compromiso de los productores de carne con el rubro. Es decir, por ejemplo, ponerse de acuerdo en aspectos básicos de cómo producir carne, para qué producir, etc.
- Se señala que Ogana es una entidad de corte más bien gremial y no comercial y se indica el alto nivel de individualismo que atenta contra un mejor desarrollo del rubro. El gremialismo no debe mezclarse con los negocios.
- Se señala que gran ventaja del ganado de carne de Aysén radica en que no se encuentra "contaminado" con razas de leche, lo que aseguraría mejor niveles de calidad. Ello ocurre sólo en Aysén y Magallanes, donde no hay lecherías.

- En Chile no falta dinero, sino que más bien faltan buenas ideas para la realización de buenos negocios. La banca en algunos casos puede ser una limitante, aunque existen productos financieros disponibles, hipotecarios, etc.
- En Aysén la falencia principal es la escasa presencia de industria. Se requieren inversiones en el rubro de carne; se necesitan socios estratégicos.
- Se da la señal de alarma que en el extremo sur de la región, se está produciendo mucho movimiento de cambio de mano de la tierra. Gran parte es comprada por especuladores del norte, gente que no tiene interés ni conocimiento del negocio ganadero, y dejan sus campos vacíos. También está el efecto de la venta reciente de la estancia Chacabuco.
- Queda claro que las exigencias actuales para la exportación de carnes requieren que se produzca en forma más ordenada, con trazabilidad, en lo posible en forma asociativa e integrada a los sistemas PABCO.
- Se presentó la experiencia de productores de la X Región, que para desligarse de su dependencia de una empresa faenadota local, invirtieron en la formación de su propia planta faenadota, con venta de acciones. Los productores son dueños de un 35% de las acciones y el resto fue asumido por dos grupos económicos. Existe la posibilidad que la empresa que construye la planta la entregue en arriendo.
- Debe mejorarse el poder de negociación del productor, de modo que pueda acceder a diferenciales que generalmente quedan en la fase de procesamiento y comercialización.
- En caso de exportaciones, debiera pagarse a los productores en dólares (similar a lo que ocurre en otros rubros de exportación).
- Se indica que lo que definirá qué producir, cómo producir, cuándo producir, que tipo de animal usar, etc., será la demanda (mercado). Ello definirá si se usan canales chicas o grandes y esto determinará el tipo o raza o cruza de animal a usar.
- Se piensa interesante considerar aspectos como la parición más temprana, la hibridación con razas británicas para asegurar novillos gordos a los 18-19 meses de edad. Razas excesivamente grandes significarían que se requerirá pasar un segundo invierno con el ganado de engorda, lo que es dudosamente económico.
- El uso de hormonas es otro punto sensible y está vedado si se exporta a la Unión Europea. Debe considerarse en relación a los objetivos productivos relacionado con el tamaño de canal.
- El transporte es un punto central en las limitaciones para el desarrollo de la ganadería de carne. La falta de camiones, las distancias excesivas, los requerimientos de transporte marítimo, etc. atentan contra la calidad final del producto y encarecen el producto obtenido. La instalación de capacidad de faenamiento en la región sería la única vía para contrarrestar esta situación. Nuevas normativas sobre transporte de ganado, que exigirán tiempos máximos pueden limitar fuertemente la capacidad de sacar ganado en pié desde la región de Aysén.
- Los ganaderos deben involucrarse en la fase de procesamiento de la carne. La planta de faenamiento en Aysén se justificará si hay cantidad de faena, lo que hoy falta. Debe potenciarse el volumen y la calidad. Se requiere también de fidelidad de los engorderos con la planta (qué pasa si se pasan a crianza por razones de precios puntuales?). Por ello su involucramiento es importante. Debe considerarse también que vender el animal completo es difícil y requiere volumen..
- Que alternativas hay?: conseguir un socio estratégico que quiera invertir en el rubro y que pueda asociarse con un grupo de ganaderos. Otra alternativa sería hacer crecer alguna empresa que exista en la actualidad (exportadora de ovinos podría diversificarse). Se necesita buena capacidad de gestión y contactos.

- Existe posibilidad de apoyo estatal, no para la construcción de una planta faenadota, pero si para ayudar a gestionar y facilitar contactos, etc.

Se concluye que es necesario organizarse a nivel de productores en torno al rubro de la carne en Aysén. Es necesario coordinarse y ojalá asociarse para lograr apoyo estatal en la búsqueda de potenciales socios inversionistas para la instalación de un matadero de exportación de carne bovina. La Organización Ganadera Austral lidera la postura de los ganaderos de mayor tamaño en la región, quienes podrían actuar de contrapartida en un eventual negocio.

El INIA ofrece su apoyo a las iniciativas que se estudien y será necesario acercarse a la CORFO para lograr apoyo a iniciativas de búsqueda de socios. Se debe tener claridad de la situación actual y potencial de producción de carne bovina en Aysén.

Presentación en reunión de especialidad

En el mes de Junio, se llevó a cabo la Reunión Anual del Grupo de Especialidad de Producción Animal del INIA. Esta reunión, que convoca a todos los especialistas de rubros pecuarios del INIA (Bovinos, Ovinos, Caprinos, Praderas y Forrajeras), se realizó en el Centro de Investigación Remehue (Osorno). La lista de asistentes a esta reunión se presenta en el Anexo. Se realizaron dos presentaciones relacionadas con la asistencia al Congreso Mundial de la Carne: Situación de la producción y mercados de la carne en el mundo (Christian Hepp) y otra relacionada con sistema de engorda en *feed lot* en Canadá (Adrián Catrileo).

Artículo divulgativo Revista Tierra Adentro

La revista Tierra Adentro incluye en su próxima edición un especial relacionado con la Ganadería Bovina. En esta revista, se consideró un artículo sobre el Congreso Mundial de la Carne, con las tendencias mundiales de este rubro, a cargo del colega Adrián Catrileo de INIA Carillanca. No se podía incluir otro artículo sobre la misma temática, por lo que en coordinación con el citado colega se incluyó un artículo sobre los sistemas de producción de carne ovina y bovina de la Patagonia, el que se presenta en anexo.

Artículo divulgativo Revista del Campo y Síntesis de asistencia al congreso

Se envió a la Revista del Campo (Diario El Mercurio) un artículo divulgativo que sintetiza la asistencia al Congreso Mundial de la Carne (25 Agosto). El artículo está en proceso de revisión para su posterior publicación. El artículo corresponde en gran medida a lo presentado en el Informe Técnico.

Medios de comunicación

Se realizaron *dos* programas radiales relacionados con la asistencia al Congreso Mundial de la Carne:

- Julio 2004: Asistencia como único invitado al programa "Campo Lindo", un programa de alta sintonía rural, conducido por Mauricio Abu-Eid. Se transmite los días viernes entre los 18:30 y 19:30 horas por Radio Santa María, la principal emisora AM de la Región de Aysén. Es un programa de conversación, en que se trataron diferentes temáticas relacionadas con el rubro de la carne, especialmente bovina y ovina.

- Agosto 2004: Asistencia como único invitado al programa "Pulso Regional", un programa de alta sintonía rural, conducido por Yamil Sahid. Se transmite los días domingo entre las 13 y 14 horas. Es un programa de conversación, en que se trataron diferentes temáticas relacionadas con el rubro de la carne, especialmente bovina y ovina.

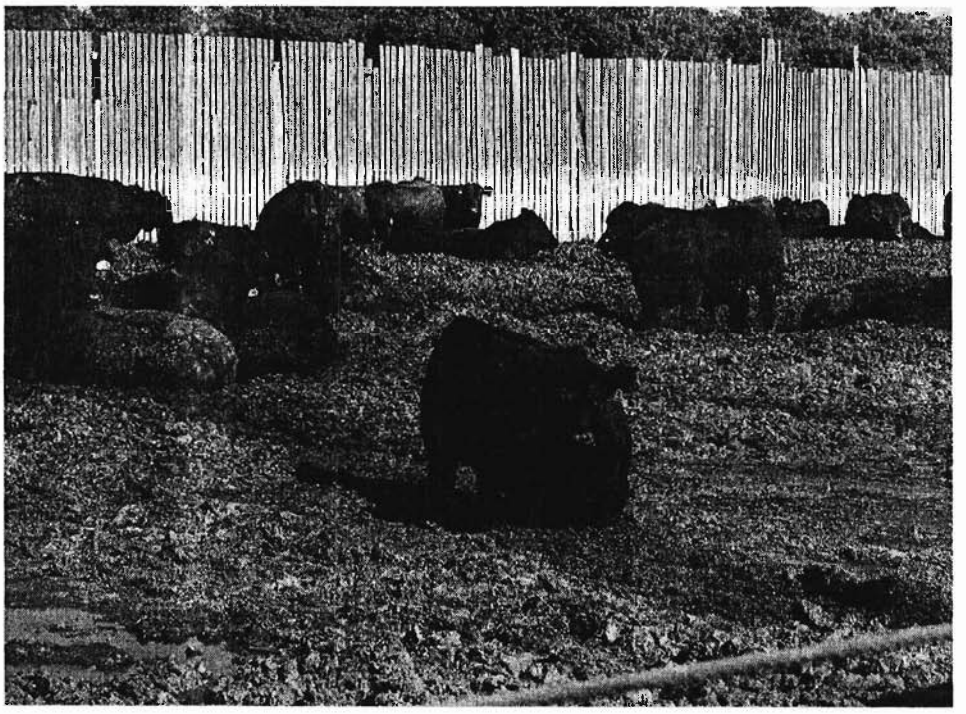
Se realizó un programa de televisión, emitido por Canal 4 de Coyhaique, el día jueves 12 de agosto y conducido por el periodista Rocco Martiniello. Se realizó en directo, entre las 20:30 y 21:30 horas y se centró en la participación al XV Congreso Mundial de la Carne. Al programa asistieron Claus Köbrich, Ljubo Goic y Christian Hepp. Durante el programa se emitieron también imágenes de la ganadería en Canadá, específicamente de la provincia de Manitoba.

La realización de la charla-presentación también fue destacada por la prensa local, y tuvo presencia en despachos de noticieros radiales y publicaciones, como el boletín "El Pilchero" editado por FUCOA regional.

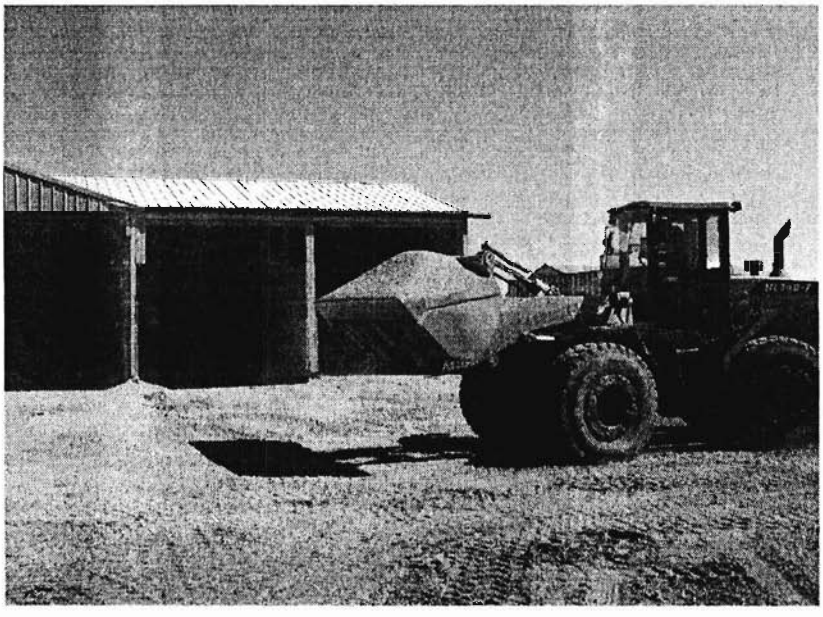
CONCLUSIONES

Producto de las actividades de difusión de la asistencia al XV Congreso Mundial de la Carne, se llegó en forma directa (asistencia personal) a más de 150 personas. Las otras actividades escritas-radiales-televisivas permitieron multiplicar este número y llegar con la información más relevante a un amplio público regional.

ANEXOS



LISTADOS DE ASISTENCIA A LAS ACTIVIDADES PROGRAMADAS



LISTA DE ASISTENCIA
Congreso Mundial de la Carne Winnnipeg Canadá 2004
12 de Agosto 2004

Nombre	Actividad	Institucion o Empresa	Teléfono	Firma	e-mail
Patricio Shenke	Agricultor	Junta	914209		
Manuel Perez	Ingeniero	Independiente	09/5188563		manuel@Patagonia.com
Alejandro Colomes	I. Agronomo	Sub. Dere	09/2183250		acolomes@entelchile.net
Ricardo Freire	M. Veterinario	Indigen.	09/4244791		ricardofreire@Hotmail.com
Cristian Johnson	Lechero	Lechero agricul			
Daniel Wolf	Agronomo	Agsen Enterprises	234600		Patagoniawolf@Hotmail.com
Fabian Saavedra	M. Veterinario	U. Chile	09/5388041		asland@tutopia.com
Alejandro Zuñiga	M. —	U. Austral	9155550		ze177@Hotmail.com
Jorge Manfredi	A. Ganado	Agsen Inversiones	09/8186902		
Geraldine Foitzick	Tec. Agricola	SAG	212198		
Raul Hernandez	Tecnico Inter.	Senado	231331		
Alberto Toesser	Ganadero	Dinehuao	232234		
Carolina Schiller	Ganadero	Particular	09/4466		
Heinz Kunick	Agricola	Particular	423228		
Marcos Bolz L.	Ing. Agricola	Indap.	96848867		ohicuno@hotmail.com
Hector Carrillo	Ganadero	Particular	670021		
Liberato Calzado	Ganadero	Particular			
Ivo Garcia	Ganadero	Particular	242137		
José Rodriguez	Ganadero	Particular	231297.		
Sergio Sentsy	Ganadero	Particular	231900		arnesti@123.cl
Marcos Teed	Veterinario	Particular	232161.		
22 Sergio Arroz	Agricultor	Particular	253185		—
Bernardita Navarro	D. Comercial	Codesser	231320		bernardita.navarro@codesser.cl
Roberto Lagos	Agricultor	Particular	232523		
Patricio de Santiago	I. Agronomo	Patagonia Nat	09/8623828		natura@patagonia.cl
24 Humberto Vidal	Empresario	Industrial	252900		

LISTA DE ASISTENCIA
Congreso Mundial de la Carne Winnnipeg Canadá 2004
12 de Agosto 2004

Nombre	Actividad	Institucion o Empresa	Teléfono	Firma	e-mail
PATRICIO Almarcegui	TEC. AGRICOLA	INIA	237754		PALMARCEGUI@RAUCE.INIA.CL
Esteban Rondanelli	Estudiante	INACAP	232728		Estebanrondanelli@hotmail.com
Carlos " "	Agrónomo	independiente	" "		Rondayser@123.cl
Claudia Alvarez	Méd. Veterin...	Servicio Salud	082000910		ClauAlvarezm@hotmail.com
TITLAN Muñoz R	Tec Agricola	Lago Verde	235330.		autlan782@yahoo.es
Isabel Graitur	Med. V.	SAG.	212197		Isabel.Graitur@SAG.GOB.cl
Raul. Zulend.	Agrónomo	indep.	09-8840394		Raulzeland@hotmail.com
Mirtha Bravo	Est. Gastronomi	CFT Austral	235484		—
Loreto Moyz	Periodista	Semi Agricult.	212260		Lamoyz@FUCOZ.GOB.cl
Christian Puelman					
Ramón Henriquez	Agrónomo	Esc. Agrícola	216622		RHenriquez@Patagonia.Chile.cl
Ricardo Villagra	Est Agronomi	UACH de Valdi	09-1066425		Ricardo_Villagra@yahoo.cl
José Manuel Rodriguez	Agricultor	Ferrecentro S.A.	233048		Ferrecentro@Patagonia.chile.cl
Guillermo Cruz	"	Agrícola Sin Zorri	234494		Australes@EntelChile.net
Walter Schmidt	Martillero	Martillero Nacional	232180		Wschmidt@tattersal.cl
Edo. Prazdenu	"	" "	" "		Eprazdenu@ " .cl
Guido Perek	Agricultor	—	9-8851410		—
Pedro Quintana	Graduado	Sta. Elena	212198		—
Agustin Redlich	Agricultor	Palmar cedr.	09-7994566	Agustin Redlich	
Rodrigo Jimenez	" - Graduado	Pto. Aysen	09-8745296		Teampatagonia@hotmail.com
Ginardo Schmidt	Téc. Agricola	Jr Junta	988378346		—
Eugenio Saldiza Soto	Ing. Agrónomo	Indap.	212242		Lsaldiza@indap.cl
Camilo Henriquez	Agricultor	Trapiel aike	—		—
Marcelo Asunto	Jefe. Area	Indap - La Junta	314159		Masunto@indap.cl
Mónica Manzilla	Plan. Gastronom	CFT Austral	237597		turaisen@ze.cl
Gabriel ~~Juan~~ Nerez	" "	" "	254645		Granmel@Tie.cl
Leonardo Pérez	directo	SAG	212170		Leonardo.Perez@SAG.GOB.cl
Ernesto Holmberg	Agricultor	Coyhaique	—		—

LISTA DE ASISTENCIA
Congreso Mundial de la Carne Winnnipeg Canadá 2004
12 de Agosto 2004

Nombre	Actividad	Institucion o Empresa	Teléfono	Firma	e-mail
Magdalena Fuentes A.	Comerciante	Coyhaique	670307		—
Remiro Galvez	Agricultor	Izenti	325128		
Jorge Holmberg	Ganadero	Coyh.	232659		
Hugo Arancibia	Agrónomo	Indap.	334075		Huaranci@mdap.cl
Felipe Elizalde	Ing.	INIA	233366		Helizald@tamelaikeinn
Hernán Poupin	Gerente	Agropecuaria Vizcaya	231351		hpoupin@123.cl
Marcela Cortez	Director	INDAP	212220		
Mark Ebrin Ayzad	Ing. Comercial	Corfo	217607		Mauad@Corfo.cl
Héctor Juri Concha	Ganadero	Pto. Aysen	333981		Ricardojuri81@hotmail.com
Tomás Chacon	Méd. Veterin	SAG	212180		tomas.chacon@SAG.gob.cl
1. Fabián Apos	Administ.	Martinez y Galo	233686		—
Joaquín Martinez	Méd. Vet.	" " "	231313		@Aysenmzg@Patagonia.cl
Raul Castillo	" "	Coyhaique	09-8861071		Raul.castillo@mi.cl
Carlos Trigoi	" "	" "	09-4143884		Camel@Patagonia.cl
Enrique Castillo	Industrial	Com. Mañihuales	231571		Mañihuales@Patagonia.cl
Carlos Montti	Abogado	Coyh.	232421		Montti_estudio@hotmail.com
Ramon Prudenz	Ganadero	Coyh.	232754		
Mauricio Abuid	Agrónomo	Atriz	233586		
Hernan Borquez	Ing.	INDAP	332661		Hborquez@indap.cl
Claus Kobrich	Med. Vet.	U de Chile	02-6785503		ckobrich@uchile.cl

LISTA DE ASISTENCIA
Congreso Mundial de la Carne Winnnipeg Canadá 2004
12 de Agosto 2004

	Nombre	Actividad	Institucion o Empresa	Teléfono	Firma	e-mail
1	Carolina Schilling	agricola	Particular	314166		
2	Fernando Schmitt			09/8078340		
3	Daniel Wuhl	Agronomo	Alsen Interesis	94730506		
4	Sergio de Amesti		Particular	23190		
5	Ricardo Neimo	Veterinario	Parti.	09142447 81		
6	Marcelo Asturto	Indap Jute	Indap.	314159		
7	Cirico Reed	Agricultor	Parti.	8840712		
8	Jorge Elizo	Agronomo	Indap.	212220.		
9	Patricio Schenque	Agricultor	La Junta	314209		
10	Alberto Toessel		Independiente	232234		
11	Mauricio Abuaid	Agronomo	Afria	230586.		
12	Jose Ojeda	Agricultor	Particular	—		
13	Rafael Saavedra	M. Veterinario	SAG	212197		
14	FABIÁN SAGREDO EROSA	M. Veterinario	U. de Chile	09-538 8041		
15	Marcos Reed	Veterinario	Agrivet			
16	Hernan Felipe E.					
17	Patricio de Santiago	Agronomo				
18	Carlos Fuscoint					
19	Jose Rodriguez T.					
20	Claudio Baring.					
21	Rodrigo Jiménez	Agric./Ganadero	Particular	336451		
22	CLAUDIA ALVAREZ					
23	Humberto Vidal O	Matadero	INDUCAR	232900		
24	Guido Tereda					

REGISTRO DE ASISTENCIA A ACTIVIDAD DE DIFUSION FIA
CONGRESO MUNDIAL DE CARNE (WINNIPEG, 14-17 JUNIO 2004, CANADA)

LUGAR : INIA REMEHUE (OSORNO)

FECHA : 22 JULIO 2004

Nombre	RUT	Dirección	Fono	Fax	Institución / Predio/ Profo	RUT Organiz.	Cargo y FIRMA	Rubro a que se dedica	E-mail
Adrian Catrilao		Casilla 58-D	45 215706	45 216112	INIA-Carillanca	61.312000-9		Carne bovina	acatrilao@carillanca
Christian Pojato		Casilla 58-D	45 215706	45 216112	INIA-CARILLANCA	✓		Carne bovina	cpojato@carillanca.inia.cl
Fernando Fernández		casilla 165 Cauquenes	73-512260	73-512502	INIA-Cauquenes	✓			ffernandez@inia.cl
[illegible]		[illegible]	[illegible]	[illegible]	INIA-Chillán	✓		[illegible]	[illegible]
[illegible]		/ /	/ /	/ /	/ /	✓		[illegible]	[illegible]
Norberto Teuber V.		24-O. Osorno	65-233515	65-237746	INIA-REMEHUE	✓		Pradera	nteuber@remehue.inia.cl
Christian Hepp		Casilla 296 Coyhaique	67 233366	67 233270	INIA Tamel Aike	✓		Sistemas Pastoriles	chepp@tamelaike.inia.cl
VICTOR VALENCIA		CASILLA 34 SAN SALVA	73-381268	73-381769	INIA RAMILLEN	✓		CARNE BOVINA	vvalencia@inia.cl
SERGIO IRAIZA		Casilla 24-O Osorno.	64 233515	64 237746	INIA REMEHUE	✓		CARNE BOVINA	siraiza@REMEHUE.

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Nombre	RUT	Dirección	Fono	Fax	Institución / Predio/ Profo	RUT Organiz.	Cargo y FIRMA	Rubro a que se dedica	E-mail
Hernán Acuña		Los Maitenes 585 V. El Bosque Chillán	(42)209510	(42)209599	FNIA	61312000-9	Director Regional	Praderas	hacuna@quilamapu.inia.cl
Francisco Soles		Angamos 1056 Punta Arenas	(61)241048	(61)241043	INIA	"	Ren. Vegetal Ganadería	Prad. Quina	fsoles@tempemaike.inia.cl
Cristián Vidal		Lautaro 30 Renos Los Manzanos Los Angeles	43313688	43-313688	INIA	"	Sub director C.E. Hilmo	Prad. Lechero	cvidal@inia.cl
Patricio Soto		Sto Cambos 573 V. El Bosque Chillán	42-209659	42-209599	INIA	"	Jefe Prog.	Investigador Pradera	psoto@quilamapu.inia.cl
Julio Avendaño		Casilla 105 Coyhaique	73 512200	73 512502	Inia-CE Coyhaique	61312000-9	Jefe Exp.	Ovinos y Praderas de Secano	javendano@inia.cl
Ernesto Jahn		Casilla 426 Chillán	42-209657	42-209599	INIA	"		Leche	EJAHN@quilamapu.inia.cl
SERGIO HAZARD		CASILLA 589 TEMUCO	[illegible]	[illegible]	INIA		Ing. Forrajero	Lechero	SHAZARD@[illegible]
Pedro Herrera		CASILLA 439. CORREO 3	2252118		INIA	"	PRO DIRECTOR NACIONAL	INICIALES	pherrera@INIA.CL
J.C. DUMONT		Casilla 24-0 Osorno	233515	237746	INIA	"	Encargado Centro Lechero	Leche	JDUMONT@REMEHUE.INIA.CL

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FECHA : 22 - JULIO - 2004

Nombre	RUT	Dirección	Fono	Fax	Institución / Predio/ Profo	RUT Organiz.	Cargo y FIRMA	Rubro a que se dedica	E-mail
RODOLFO SALDAVIA		CASILLA 24-0 OSORNO	64-233515	64-237746	INIA Remehue	61.312.000-9		LAB. NUTRICION ANIMAL	RSALDAVIA@remehue.inia.cl
OSVALDO TEUBECH		LAS LENGAS 1450 COYHAIQUE	67-233270	67-233270	INIA TAMELAIKE	61.312.000-9		FORRAJERAS	OTEUBECH@tamelaike.inia.cl
CARLOS OVALLE		Casilla 420 Chillán	42-209658	42-209599	INIA Quilamapu	"		PRADERAS	covalle@quilamapu.inia.cl
Carolina Folch		casilla 24-0 OSORNO	64-233515	64-237746	INIA Remehue	61.312.000-9		Biotecnología animal	Biotec@Remehue.INIA.cl
Paz Gallardo M		Las Lengas 1450 Coyhaique	67-233270	067 233270	INIA Tamelaike	61 312 000-9		Ovinos	pgallardo@tamelaike.inia.cl
Héctor Velches		Casilla 3 Litueche	72-822125	72-822125	INIA-HIDANGO	61312000-9		OVINOS BOVINOS	hvelches@hidangoinia.inia.cl
Julián Pérez		Casilla 24-0 (OSORNO)	64-237746 64-233515		INIA-REMEHUE	"		BOVINOS DE LECHE	jperez@remehue.inia.cl
Camila Ramírez		Casilla 3 Litueche	72-822125	72-822125	INIA-HIDANGO	"		OVINOS	cramirez@hidangoinia.inia.cl
PEDRO COFRÉ		Casilla 426 CHILLÁN	42-209653	42-209599	INIA Quilamapu	"		FORRAJES	[illegible]

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Nombre	RUT	Dirección	Fono	Fax	Institución / Predio/ Profo	RUT Organiz.	Cargo y FIRMA	Rubro a que se dedica	E-mail
JORGE A. GONZÁLEZ V.		CASILLA 426 CHILLÁN	42-208601	42-208599	INIA QUILAMAPU	"		ECONOMIA AGRARIA	jgonzalez@quilamapu.inia.cl
Raul Lira F.		Angamos 1056 P. Arenas	61-241018	241048	INIA - Kampenaike	"	Investigador	Ovinos	rlira@kampenaike.inia.cl
Claudio Bonilla		Casilla 24-O Osorno	64-233515	64-237746	Inia Remehue	"	Investigador	Papas	cbonilla@remehue.inia.cl
Héctor RIBE		Casilla 24-O	64-233515	64-237746	INIA	"	Investigador	Genética	HRIBE@CLINK.CL
DANIEL CLARO		E. Fernández 850 Stgo	2392497		Fundo La Magdalena	4125813-3	Productor	Bovinos Carne Ovinos Chilo	
Alfredo Torres		Casilla 24-O Osorno	64-233515	64-237746	INIA Remehue	61.312.000-9	Investigador Pasturas	Pasturas	atorres@remehue.inia.cl
Marta Alfaro		Casilla 24-O Osorno	64-233515	64-237746	INIA Remehue	61.312.000-9	Investigador	Fertilidad suelo y contaminación ambiental	malfaro@remehue.inia.cl
Fernando Squella		Casilla 3, LITUECHE	72-822125	72-822125	INIA RAYENTUE	"	Investigador	OVINOS - PRADERAS	fsquella@rayentue.inia.cl
Marcelo Zolezzi		Av. Salamanca 3/n - Los Ulmos	522220	522220	INIA	61.312.000-9	Director	CULTIVOS	mzolezzi@rayentue.inia.cl

REGISTRO DE ASISTENCIA A ACTIVIDAD DE DIFUSION FIA
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RODOLFO SALDAÑA		CASILLA 24-0 OSORNO	64-233515	64-237746	INIA Remehue	61.312.000-9		LAB. NUTRICION ANIMAL	RSALDANA@remehue.inia.cl
OSVALDO TEUBEC W.		LAS LENGAS 1450 COYHAIQUE	67-233270	67-233270	INIA TAMELAIKE	61.312.000-9		FORRAJERAS	OTEUBECS@TAMELAIKE.INIA.CL
CARLOS OVALLE		Casilla 420 Chillán	42-208658	42-209599	INIA Quilamapu	"		PRADERAS	covalle@quilamapu.inia.cl
Carolina Folch		Casilla 24-0 OSORNO	64-233515	64-237746	INIA Remehue	61.312.000-9		Biotecnología Animal	Biotec@Remehue.INIA.cl
Paz Galleguillos		Las Lengas 1450 Coyhaique	67-233270	067 233270	INIA Tamelaike	61 312 000-9		Ovinos	pgalleguillos@tamelaike.inia.cl
Héctor Vilches		Casilla 3 Litueche	72-822125	72-822125	INIA-HIDANGO	61312000-9		OVINOS BOVINOS	hvilches@rayentue.inia.cl
Julián Parga		Casilla 24-0 (OSORNO)	64-237746 64-233515		INIA-REMEHUE	"		BOVINOS DE LECHE	jparga@remehue.inia.cl
Camila Munoz		Casilla 3 Litueche	72-822125	72-822125	INIA-RAYENTUE	"	INVESTIGADOR	OVINOS	cmunoz@rayentue.inia.cl
PEDRO COFRE		Casilla 426 Chillán	42-209653	42-209599	INIA Quilamapu	"		CONSERV. FORRAJES	[illegible]

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Nombre	RUT	Dirección	Fono	Fax	Institución / Predio/ Profo	RUT Organiz.	Cargo y FIRMA	Rubro a que se dedica	E-mail
Luis Opazo		Alsacia 1252 Osorno	233515	237746	Inia Remehue	"	Periodista	Comunicaciones	lopazo@remehue.inia.cl
Julio C. Kalazic		8 Km 8 Norte L. Sur Casilla 24-O Osorno	64-233515	64-237746	INIA-Remehue	61.312.000-9	Director Regional	Investigación	jkalazic@remehue.inia.cl
Lubo Goic		Esmeralda 1625 Osorno.	232061	—	INIA Remehue	"	Investigador Remehue	carne	lgoic@remehue.inia.cl
FRANCISCO SIMBAIZ		CALLE 24-O. OSORNO	233515	237746	INIA REMEHUE	61.312.000-9	COORDINADOR I+D	GANADERIA Y MEDIO AMBIENTE	FSIMBAIZ@REMEHUE.INIA.CL

PRESENTACIONES EN CHARLAS DIVULGATIVAS

COYHAIQUE, AGOSTO 2004

DESAFIOS DEL SECTOR CARNE

(con énfasis en el bovino de carne)

Situación Mundial Actualizada

Presentaciones basadas en la asistencia al
Congreso Mundial de la Carne
Winnipeg, Canadá
Junio 2004

FINANCIA:

GOBIERNO DE CHILE
FUNDACIÓN PARA LA
INNOVACIÓN AGRARIA

WORLD MEAT CONGRESS

CON EL APOYO Y APORTE DE:

INIA

GOBIERNO DE CHILE
MINISTERIO DE AGRICULTURA

INIA Tamel Aike : Christian Hepp
INIA Carillanca : Adrián Catrileo
Invitado especial:
INIA Remehue : Ljubo Golc

Universidad de Chile
Fac. Ciencias Veterinarias y Pecuarias:
Claus Köbrich

PROGRAMA

Jueves 12 de agosto, 2004

- 10:00 – 10:45 El mundo quiere carne
  (Christian Hepp, Ing.Agr. MPhil PhD, INIA)
- 10:45 -11:30 Desafíos para el sector carne
  (Claus Köbrich, Med. Vet. PhD, U. de Chile)
- 11:30-12:00 Feedlots en Canadá
  (Christian Hepp, Ing.Agr. MPhil PhD, INIA)
- 12:00 – 12:45 Comercialización de la carne bovina
  (Ljubo Goic, Ing. Agr. MSc, INIA)

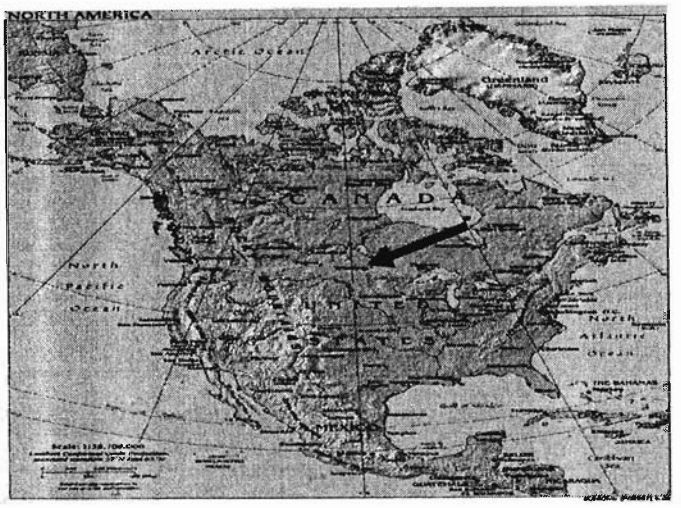
EL MUNDO QUIERE CARNE

Presentación basada en la asistencia al
Congreso Mundial de la Carne
Winnipeg, Canadá
Junio 2004

Christian Hepp K.
INIA Tamel Aike
Aysén-Patagonia-Chile

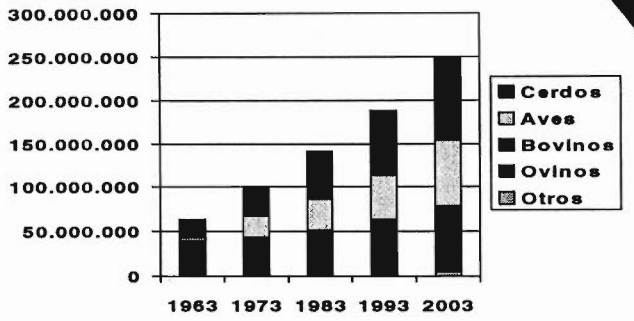
Coyhaique, Agosto 2004

Winnipeg, Canadá



- **El mundo quiere carne:**
  - **Consumo global de productos animales aumenta (ing**
  - **Carbohidratos → Proteínas animales**
  - **Mayor ingreso → Más exigencia, más elección**
  - **Cambios estructura industria → Disponibilidad carnes más**
  - **Qué hay de almuerzo? Pollo o carne de vacuno? (tendencias)**
  - **Oferta al consumidor aumenta al "achicarse" el mundo**
  - **Comercio carnes sube de 2% (80s) a 9% (03) de consumo mundia**
  - **Aumento de consumo de carnes será por cambios en países en desarrollo (47% (1992) sube a 60% (2010) de total consumo)**
  - **Preocupación situación sanitaria (FMD, BSE, etc) Baja en consumo global en 2004, recuperación posterior.**

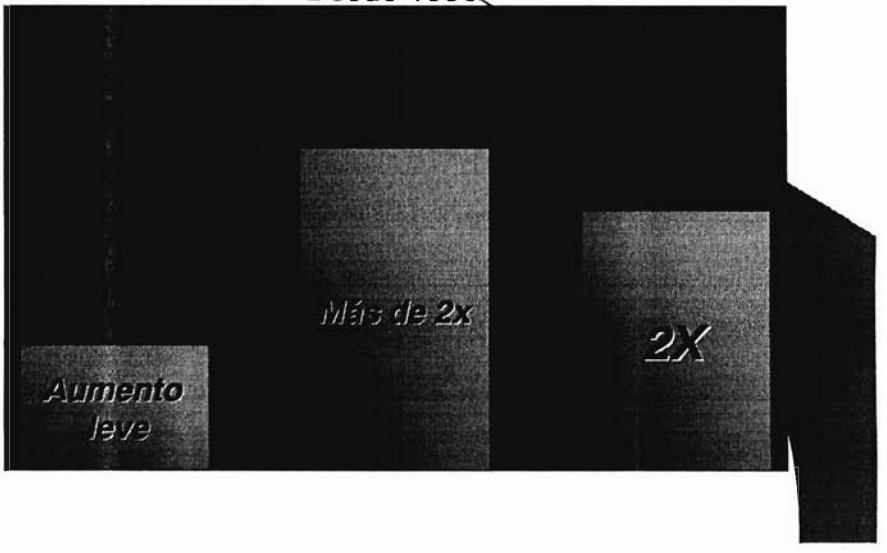
Produccion Mundial de Carne
(t eq. canal)



FAO

Comercio internacional carnes

Desde 1990

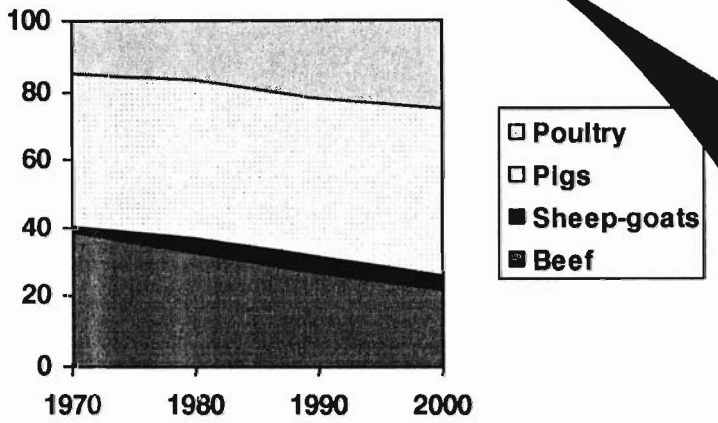


"STOMACH SHARE"
CONSUMO GLOBAL DE CARNES

	1980	1990	2000	
BOVINO	34 %	31%	26%	24
CERDO	39 %	39%	40%	39%
AVE	19%	23%	28%	30%
OTRAS	8%	7%	7%	7%

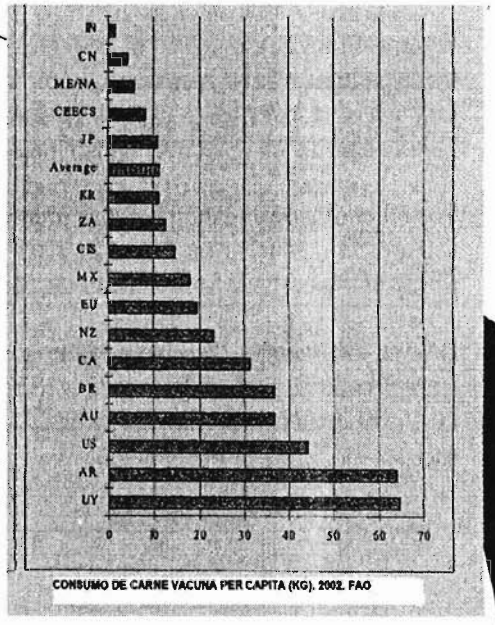
FAO 2004

Evolución de la estructura de consumo de carnes en la UE

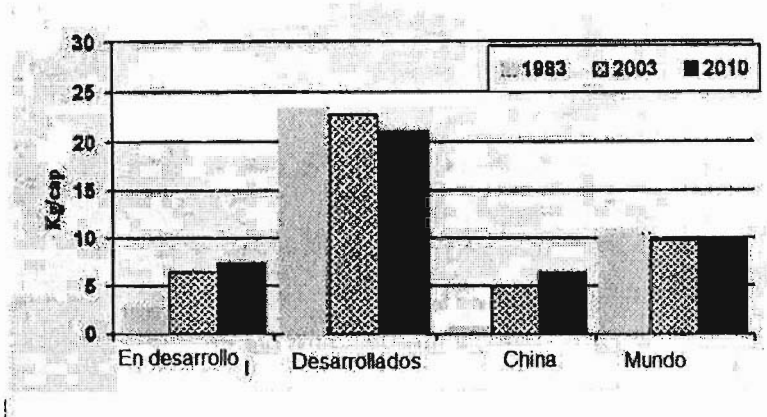


El consumo de carne de vacuno en el mundo

12 kg per cápita

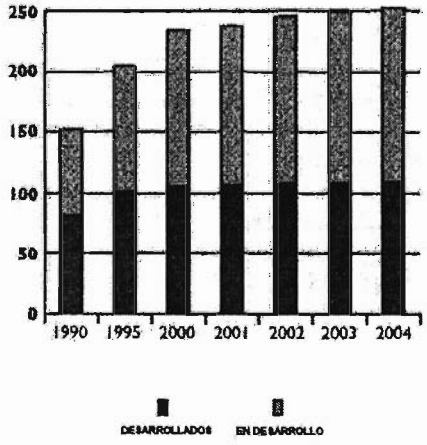


¿Quien consumirá carne vacuna?



China explica crecimiento países en desarrollo
12% consumo mundial; 114% aumento 92-04

La contribución de los países en desarrollo en el consumo de carne

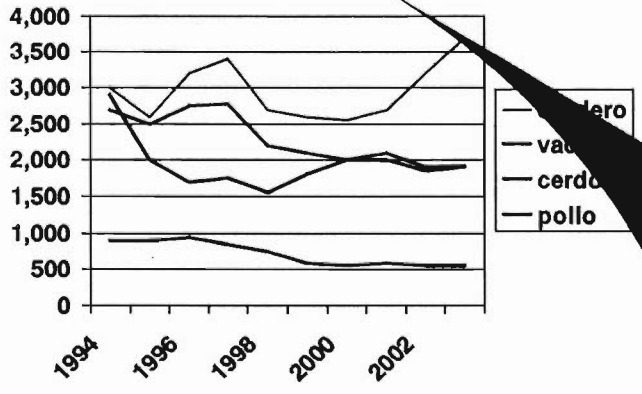


Cuál es el mayor comprador individual de carne bovina en el mundo…?

SABIA QUE: …….

- A billion hours ago…human life appeared on earth
- A billion minutes ago…Christianity was introduced
- A billion seconds ago…the Beatles changed music forever
- And a billion McDonald's customers ago… was about three weeks

Precios Internacionales de la Carne (US$/ton)



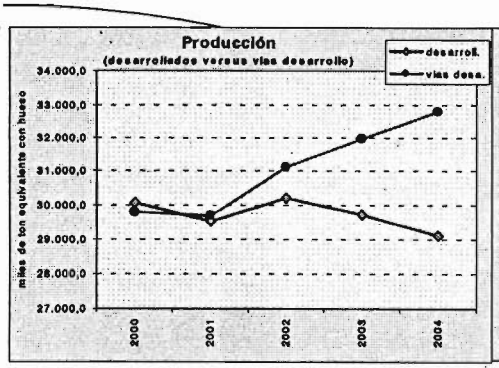
El pollo compite fuerte por precio – El cordero es carne de especialidad

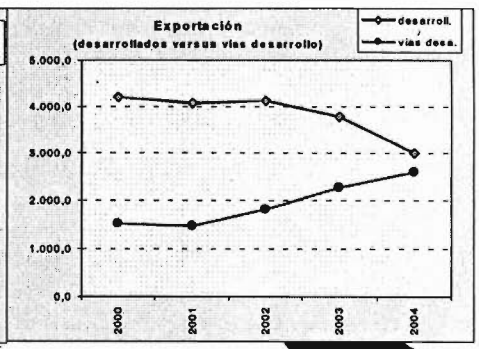
En los próximos 10 años, el incremento de Población e ingreso mundial se distribuirá....

	América del Norte	Sudamérica	Africa	Europ	Asia
Población	+ 2%	+ 9%	+ 28%	+ 5%	
Ingreso	+ 19%	+ 7%	+ 3%	+ 23%	

MEAT NEW ZEALAND

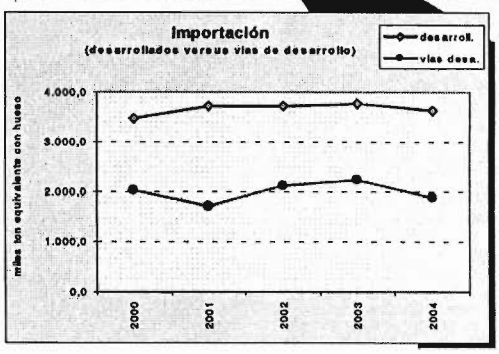
Asia representa el mayor mercado futuro…

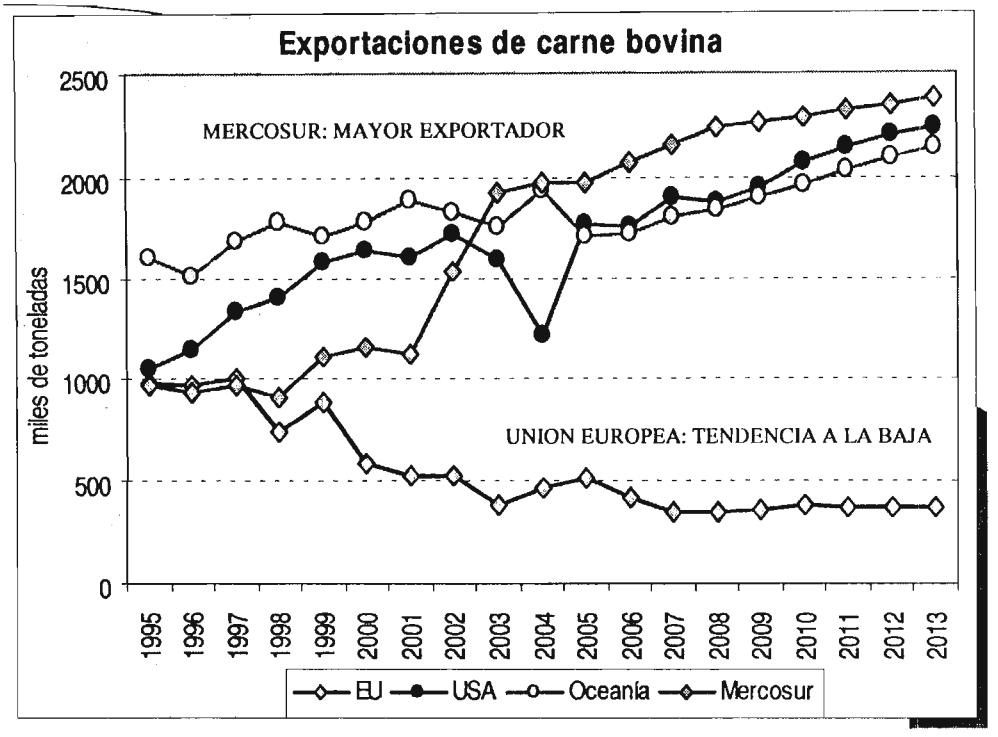


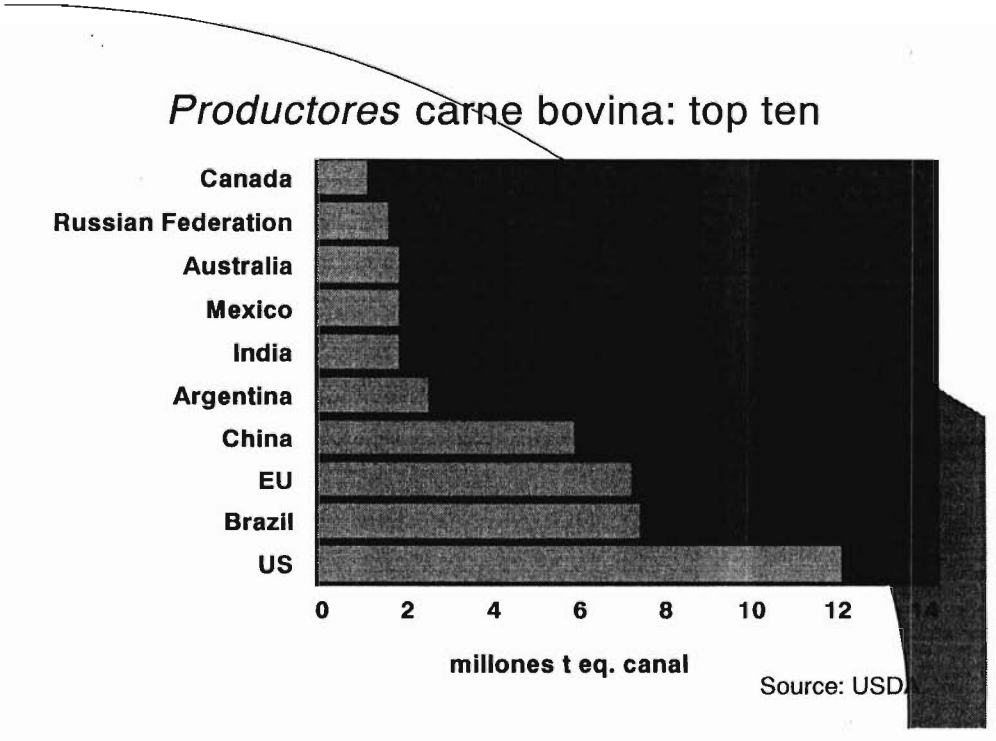


Las tendencias del mercado

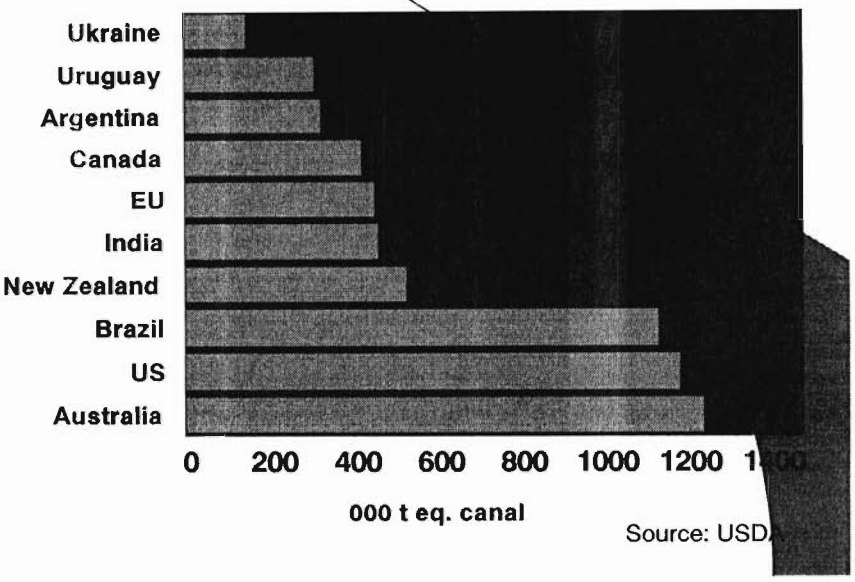
Aumentos en producción y exportación se explican por lo que sucede en países en desarrollo....




Exportaciones de carne bovina
MERCOSUR: MAYOR EXPORTADOR
UNION EUROPEA: TENDENCIA A LA BAJA
miles de toneladas
2500
2000
1500
1000
500
0
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
EU
USA
Oceanía
Mercosur


Productores carne bovina: top ten
Canada
Russian Federation
Australia
Mexico
India
Argentina
China
EU
Brazil
US
0
2
4
6
8
10
12
14
millones t eq. canal
Source: USDA

Exportadores carne bovina: top ten



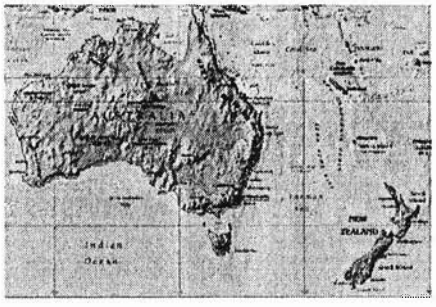
EUROPA: Reducción en el consumo; impacto de enfermedades; disminución de exportaciones

- El sector carne ha perdido competencia en el interior de la UE
- Regulaciones de bienestar animal y de ambiente cada vez más estrictas
- Opciones de políticas agrícolas que desalientan la ganadería intensiva
- Los nuevos países esperaron estimular la industria de la carne, sin embargo ello se espera para el mediano o largo plazo

CHINA: Cambio en el modelo de consumo (Proteína animal)

- Crecimiento explosivo en un consumo subsidiado
- Occidentalización rápida que cambia el modelo de consumo por carne
- La pobre salud animal y débil estructura de seguridad alimentaria, son grandes obstáculos
- Enorme mercado interior y factores productivos de bajo precio, son imanes para la inversión extranjera

OCEANÍA: OPORTUNIDAD ESTRATEGICA:



- Un muy buen estándar sanitario (libre BSE y FMD)
- Sistemas adecuados de trazabilidad
- Exportación orientada a novillos, vaquillas y corderos
- Bajo costo de producción de la carne en base a praderas
- Oceanía domina el mercado global del cordero, un nicho de alto precio
- Cercanos a los mercados asiáticos

USA: Impacto de la BSE

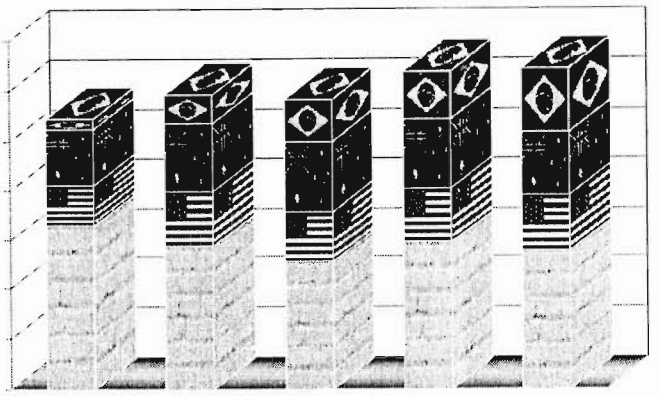
Mayo 2003 Alberta, Canadá 1 caso
Diciembre 2003 Washington St., USA 1 caso

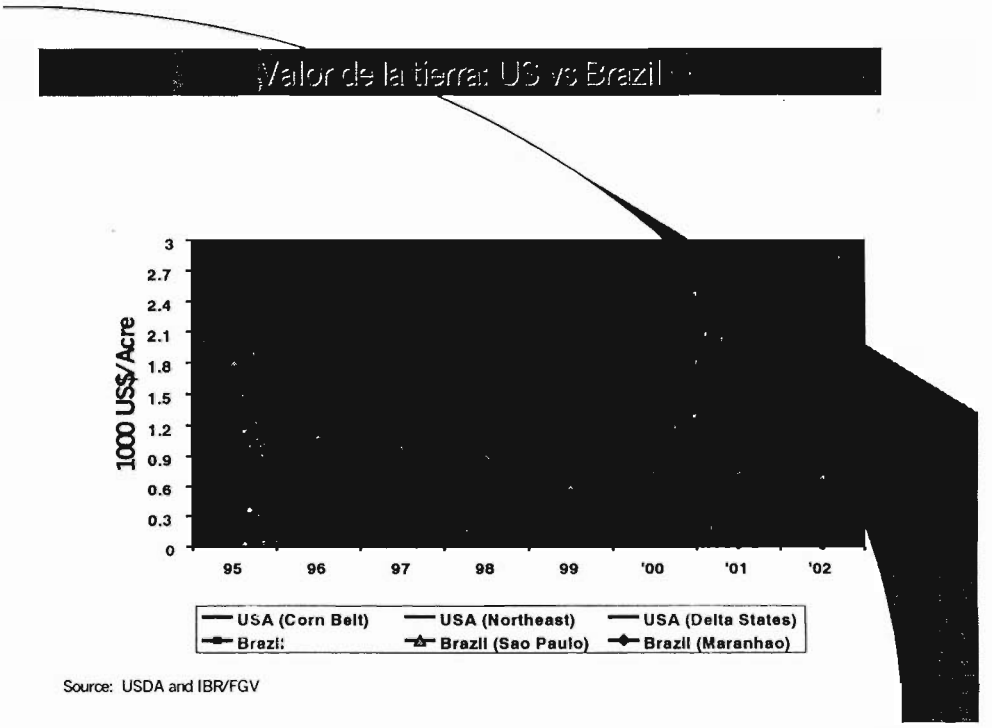
- La percepción mundial de novillos norteamericanos muy sanos, ha sido cambiada post BSE
- Se desarrolló una fuerte presión internacional que condujo a la adopción de salvaguardas de alto costo, para demostrar resistencia ante la BSE. Recuperar imagen-confianza
- Posturas más resistentes de los mercados mundiales aíslan a la industria del bovino de USA
- Trazabilidad en Canadá permite rápida detección caso BSE en Alberta. Demostración beneficios.
- Oportunidad para mejorar sanidad
- BSE tendrá efectos aún por varios años más.

BRASIL: La nueva potencia en oferta mundial de carne

- Existe un notorio progreso en la erradicación de Fiebre Aftosa
- Refuerza un plan de exportaciones que creció un 284% entre 1998 y el 2003
- Las exportaciones de cerdo han aumentado 5,7 veces en los últimos 5 años
- Tiene aún un alto potencial como país exportador

Evolucion de la exportación de carne bovina brasileña (Miles ton)





Source: USDA and IBR/FGV

IMPORTACIONES DE UNION EUROPEA DESDE:

- BRASIL 55,4%
- ARGENTINA 18,0%
- POLONIA 8,6%
- URUGUAY 5,3%

- **MERCOSUR** **78,7%**

EU Beef Forecasting Group

Mercosur está negociando aumento de cuota con UE (cero tarifa)

PRODUCCION DE CARNE BOVINA MERCOSUR

(000 t eq.canal)

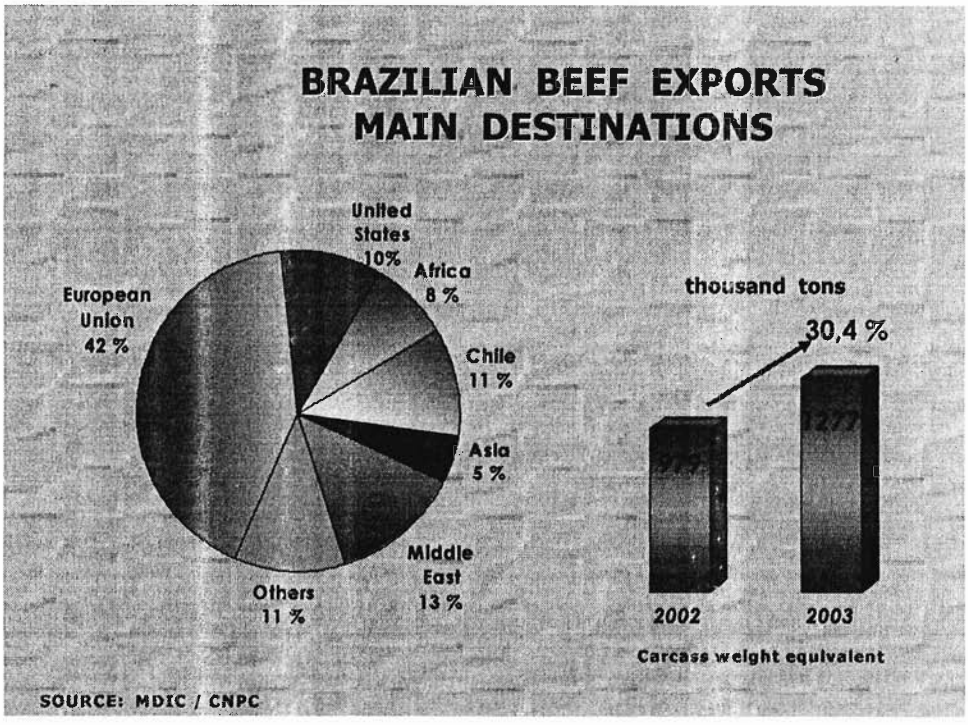
	1997	1998	1999	2000	2001	2002	2003
ARGENTINA	2712	2469	2720	2718	2461	[illegible]	2800
BRASIL	6050	6140	6050	6300	6820	724[illegible]	[illegible]
PARAGUAY	226	231	246	238	200	205	[illegible]
URUGUAY	468	454	420	450	371	412	[illegible]
MERCOSUR	**9456**	**9294**	**9436**	**9706**	**9852**	**10557**	**10[illegible]**

FAO, USDA

COMERCIO INTERNACIONAL DE CARNE BOVINA
MERCOSUR
(000 t eq.canal)

	1993	1998	1999	2000	2001	2002	2003
BRASIL	448	370	541	554	789	[illegible]	1194
ARGENTINA	283	291	339	343	150	32[illegible]	[illegible]
URUGUAY	108	279	246	279	177	259	[illegible]

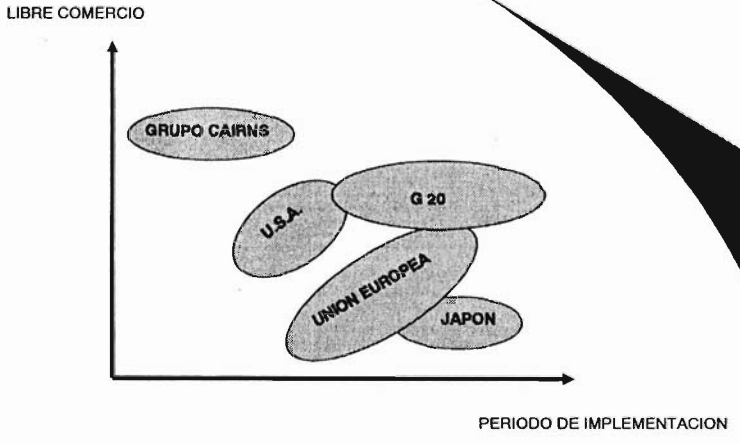
IMS, GIRA



• Políticas en sector carne

- Altos niveles de protección y apoyo a la agricultura
- Distorsiones sobre producción y comercio.
- Avances en reformas de políticas es lento.
- Tratados de libre comercio ofrecen oportunidades importantes.
- Ronda de Doha: Una agenda complicada

RANKING EN LIBRE COMERCIO CARNES

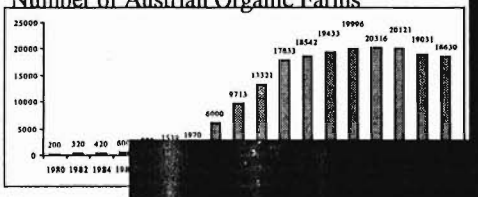


- **Satisfacción del consumidor:**
  - La industria se desarrolla y cambia para adaptarse a sociedad moderna
  - Cambios en hábitos familiares → hábitos de consumo
  - Menores tiempos de preparación de comidas: se busca conveniencia
  - El "fenómeno supermercado"

- **Seguridad alimentaria: una preocupación global**
  - Contaminación de alimentos:
  - Salmonella, Listeria, E.coli, Cólera
  - BSE
  - Preocupación por biotecnología: GMO's
  - Hormonas

Organic meat is a (worthwhile) niche - according to the Austrian & Swiss precedent

Number of Austrian Organic Farms



3 common l

Owner of the label	Billa	AMA Marketing GesmbH	Ernte für leben organisat

Responding to the challenge of demanding meat consumers

- The contradiction of the **citizen versus the consumer** … often frustrates the meat marketeers
  - as **citizens**, we demand welfare, ethics, purity, quality, con[illegible]ence etc.
  - … but when actually buying … the same **consumer** very ofte[illegible]es on the **lowest price** ...
- this is ***not* going to change**
- There are however **geographic differences**
- it is a **fantastic marketing opportunity …**
- increasingly, the **meat chain is able to respond**
  - sophisticated retailers and processors with the scale, ambition and imagina[illegible] differentiate
  - battle for who keeps the margin

➔ Development of quality signs: arou[illegible]d 15% of beef sold

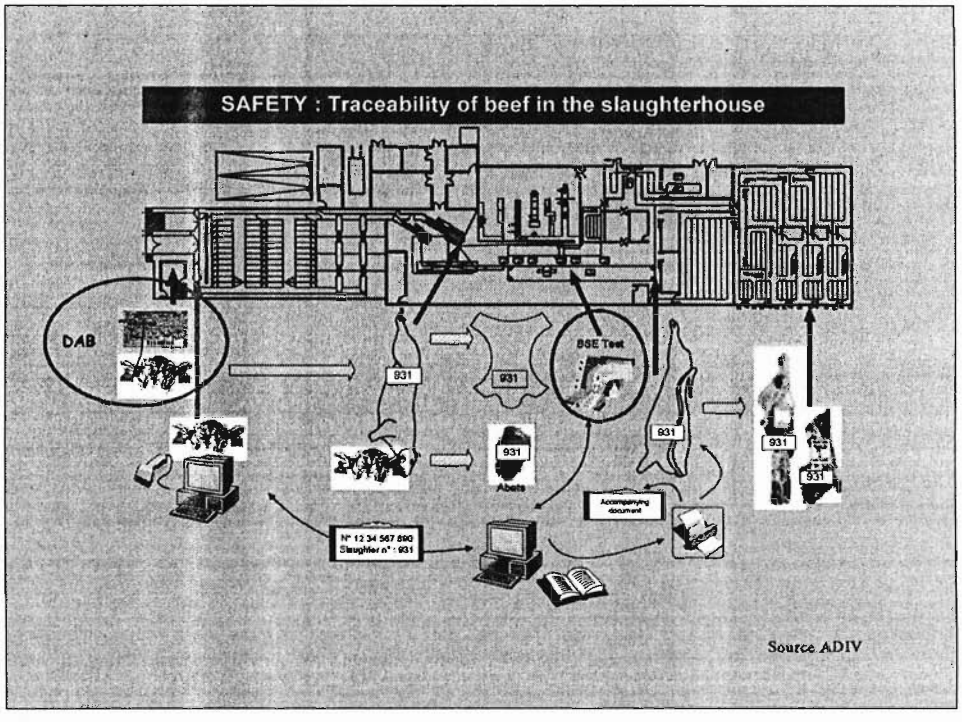
Source: [illegible] and Interbev

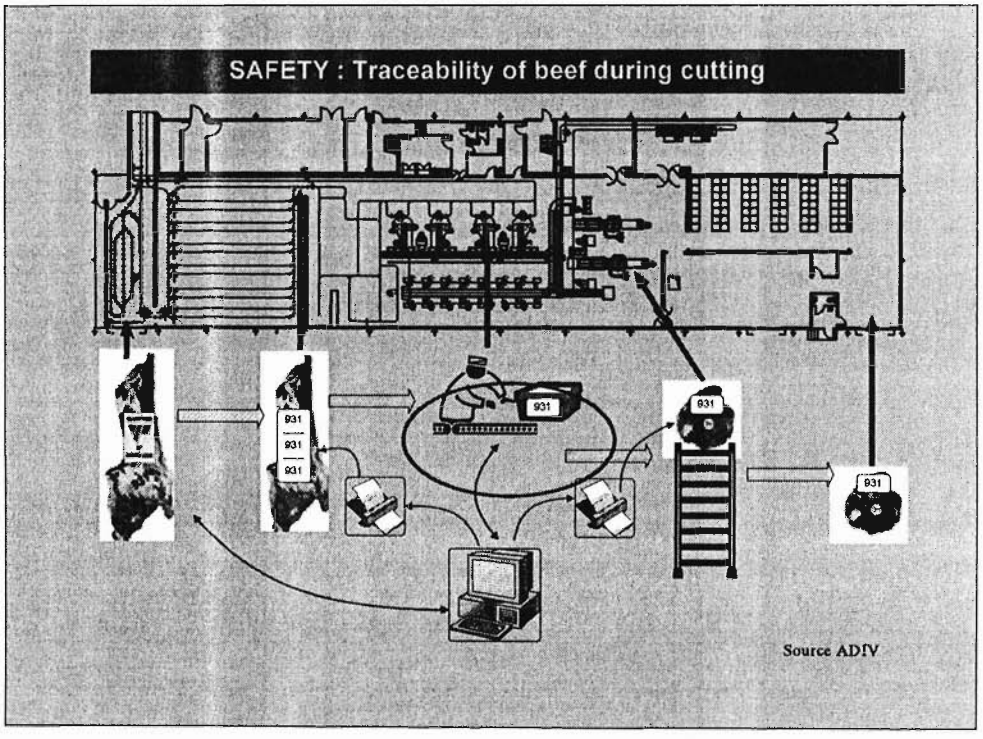
In t of carcass weight equivalence	1993	1997	1999	20[illegible]	[illegible]
Red Label	14 800	23 000	23 600	25 600	[illegible]
Organic Farming		Start	3 000	4 000	[illegible]
Product certification	Start	137 000	143 000	146 200	147 [illegible]

Quality Initials for Organic Products

•Trazabilidad: la llave a la producción moderna de carne

- Efecto de BSE en UK (80s y 96)
- Trazabilidad esencial para entrar a mercados
- Europa muy avanzado; USA en implementación



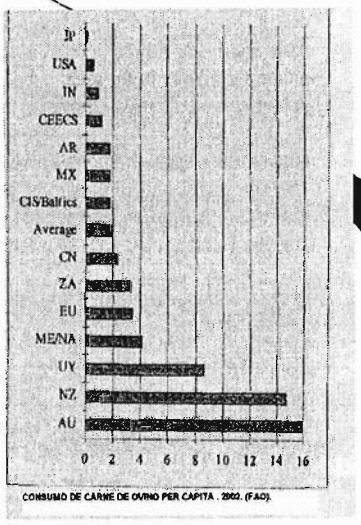

SAFETY : Traceability of beef during cutting
931
931
931
931
931
931
Source ADIV

....y los ovinos....

Consumo de carne ovina en el mundo

kg per cápita

Sólo 2 kg p.c. !!



OVINOS – SITUACION PAISES LIDERES

AUSTRALIA

- **Menor rebaño desde 1946**
- **Amplias zonas afectadas por sequías**
- **Descenso sacrificio corderos 2003/2004: - 8%**
- **Cambio a producción de corderos**

- **Perspectivas:**

- **Caída población ovina 2004, luego aumento 1-2% anual**
- **Continúa tendencia a producción de cordero**
- **35% aumento consumo inetrno a 2007**
- **Aumento exportación cordero 57% a 2007**
- **Exportación ovejas vivas estable: 5-6 millones/ año**

OVINOS – SITUACION PAISES LIDERES

NUEVA ZELANDIA

- Menor rebaño EN 48 AÑOS
- Amplias zonas afectadas por sequías
- Descenso marca/ sacrificio corderos 2003/2004: - 5% / -8%
- Cambio a producción de corderos

- Perspectivas:

- Mantención población ovina
- Aumento leve en ovejas de cría
- Aumentos moderados en productividad cordero
- Retornos dominados por alto valor NZ$

OVINOS – SITUACION PAISES LIDERES

UNION EUROPEA

- Censo ovino 2003: caída aprox. 1%
- Mayores rebaños:
- UK: -1% España: -3%
- Francia: -2% Italia: leve baja
- Irlanda: estable Portugal: estable
- Hungría: +16% (a 1,3 millones).

- Perspectivas influenciadas por:

- Oferta disminuida
- Reconstrucción rebaños post FMD
- Crecimiento UE15 a UE25: escaso efecto en producción

OVINOS – SITUACION PAISES LIDERES

ESTADOS UNIDOS (USA)

- Censo ovino: continúa caída a aprox. 6 millones
- Consumo pre cápita es bajo, pero estable
- Déficit demanda interna suplido por importación (99% NZ,
- Precios cordero firmes, pero costo insumos alto (alimento)

- Perspectivas influenciadas por:

- Recuperación económica
- Continúan altos precios cordero, competencia NZ, Aus
- Impacto paquetes asistencia a carne cordero
- Desafío buscar mercados para productos diversificados
- Freno importación animales vivos de Canadá (efecto BSE)

OVINOS – PERSPECTIVAS GENERALES

- Reposicionamiento del cordero
- Oferta mundial plana
- Demanda mundial incrementada
- Éxito está en suplir demandas del consumidor
- Consumidores más exigentes
- Esencial cuidar cada paso de la cadena (calidad total)
- Trazabilidad
- Seguridad alimentaria

- Moverse de producto commodity a producto con valor agregado

En qué está la investigación actual ?
(Una visión neozelandesa)

- Genoma de ovinos
- Reducción de gases invernadero (metano, N2O,etc)
- Salud animal (resistencia parasitaria, taninos, vacunas)
- Sistemas ovinos intensivos
- Nutrición y forrajes (endófitos tóxicos, hill country, sist. Pastor
- Seguridad alimentaria
- Calidad de carne
- Desollado, calidad cueros
- Robotización procesos
- Predios monitores (NZ)

CUALES SON LOS DESAFIOS ?

- Preocupación por las enfermedades y seguridad alimentaria
- Subsidios y Barreras
- Alertas sanitarios (hormonas, OGM's)
- Calidad y seguridad del producto son claves para
- Número creciente de exportadores
- Competencia global del cerdo y pollo
- Trazabilidad y marcas
- Preocupación social: Medio ambiente y Bienestar anima
- Tasas de intercambio
- Desarrollo en la liberalización del comercio
- Sanidad y seguridad como medida para-arancelaria
- Usar base científica para limitar lo anterior!

Fuente: FAO

CONCLUSIONES (1)

- El crecimiento de los países estimulará la demanda por carnes
- Los precios futuros estarán limitados por:
  - una expansión moderada del mercado global y
  - la fuerte competencia de los países en vías de desarr
- Si las negociaciones de la Ronda de Doha son positivas, se e
  - reformas de políticas internas (subsidios y aranceles),
  - mejoraría en el mercado beneficiando a los países en vías d desarrollo
- El impacto actual de la BSE es fuerte, pero será moderado en el mediano plazo

CONCLUSIONES (2)

- Se espera que el efecto aftosa se minimice en el mediano plazo
- Existe un fuerte aumento de competenci para los países desarrollados, por parte de los paíse vías de desarrollo
- El beneficio para el mercado bovino estará limit por los bajos precios esperados para la carne de y de aves
- Sin embargo los precios de ovinos desde Oceanía subirán
- La UE tiende a transformarse en un importador neto
- Brasil se proyecta como el mayor exportador

Canadá 2003:
Efectos de 1 caso de BSE

- 18 Mayo: Lo impensable! Se reporta un caso altamente probable BSE
- Provincia de Alberta: se activa plan estratégico de manejo de crisis.
- Primera prioridad: Plan coordinado comunicación: incluye medios e industria.
- Trazabilidad detecta predio orígen (sistema implementado 2001)
- 20 Mayo: caso confirmado: Anuncio oficial conjunto (gobierno e industria)
- Notificación inmediata a OIE
- Se reafirma seguridad de carne a público (con base científica)
- Investigación y análisis animales en riesgo: 2700 animales
- Investigación fuentes potenciales de infección (ej alimento)
- Probable fuente infección se rastrea a importaciones de harinas de carne y huesos desde UK previo a prohibición de 1989.
- USA, Washington State: Caso de BSE (vaca Holstein) en diciembre 2003 relacionado a misma fuente de infección (provino de Alberta).
- Buena información a público evitó caída más dramática en consumo (confianza), aunque efectos fueron devastadores.

Congreso Mundial de la Carne

Tendencias en el mercado mundial de la carne

Claus Köbrich G.
Fac. Ciencias Veterinarias y Pecuarias
Universidad de Chile

Los "grandes" temas mundiales

- Tendencias en el mercado
  - ✓ Oferta y demanda agregada
- Tendencias en el comercio
  - ✓ Tratados y barreras
- Tendencias en el consumo
  - ✓ Consumidor y producto

... y uno que otro (tema) villano no invitado

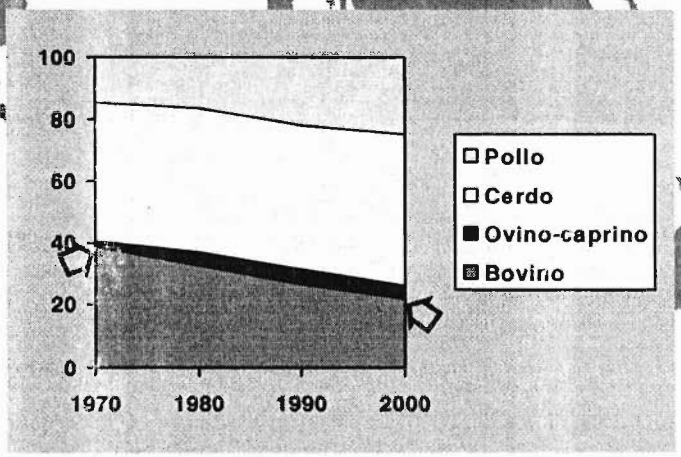
¿Por dónde empezar?

En términos generales, el comportamiento del sector de los alimentos es bastante predecible:

- La demanda sigue patrones fuertemente relacionados con
  - el cambio en el ingreso y el desarrollo de los países
  - el precio de los productos
- La oferta no tiene cambios estructurales violentos (particularmente en la carne bovina) y el desarrollo tecnológico es más lento que en otros sectores

Primero el contexto

Evolución de la estructura del consumo en la UE



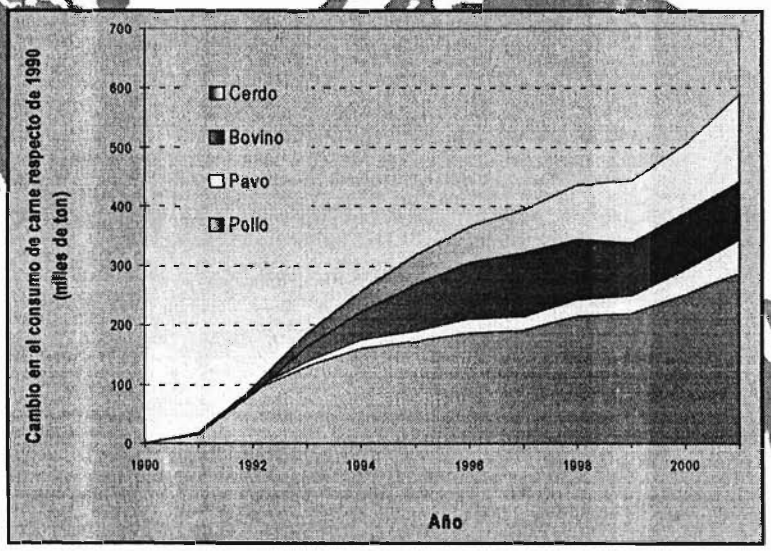
Un contexto preocupante para el consumo

Proyección del consumo mundial de carne

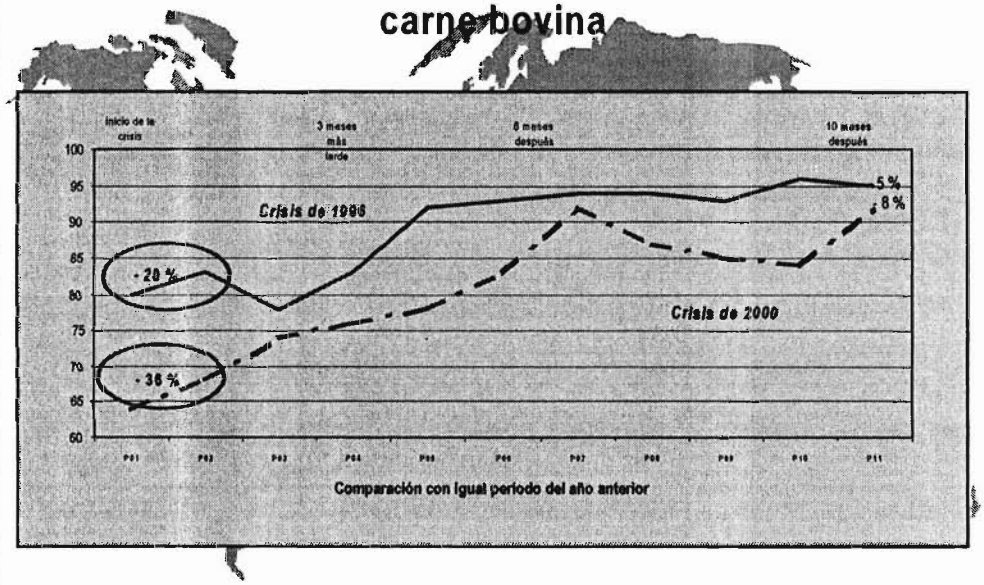
kg/hab/año

	Todas las carnes			Bovino		
	1993	2020	93/20	1993	2020	93/20
Mundo	339	393	+ 16%	9,8	10,7	+ 9%
Países desarrollados	77,7	83,0	+ 7%	25,2	25,8	+ 2%
Países en desarrollo	20,8	29,7	+ 43%	5,3	7,4	+ 40%

Tampoco Chile está ajeno a este contexto

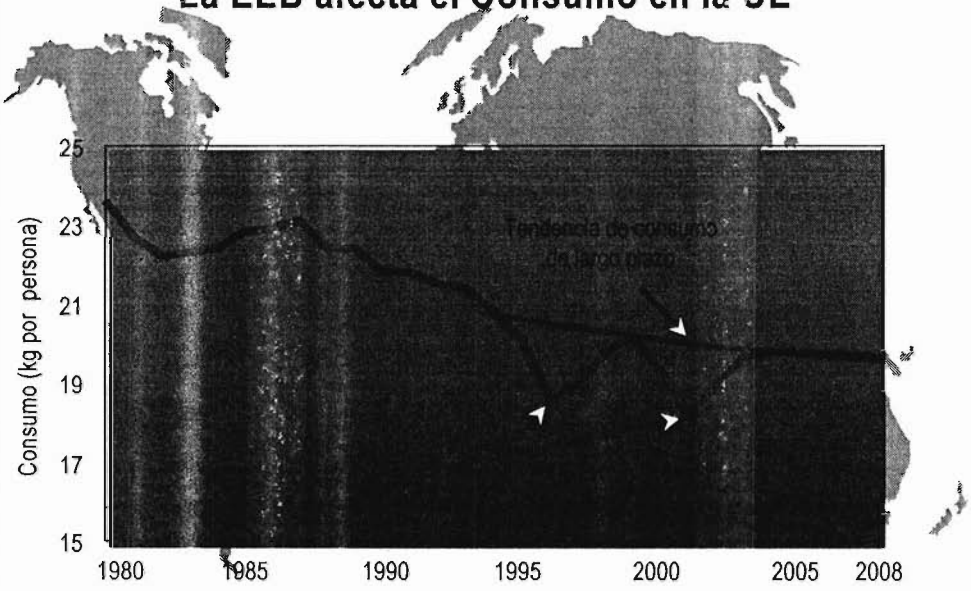


Francia: Los hogares reducen la compra de carne bovina



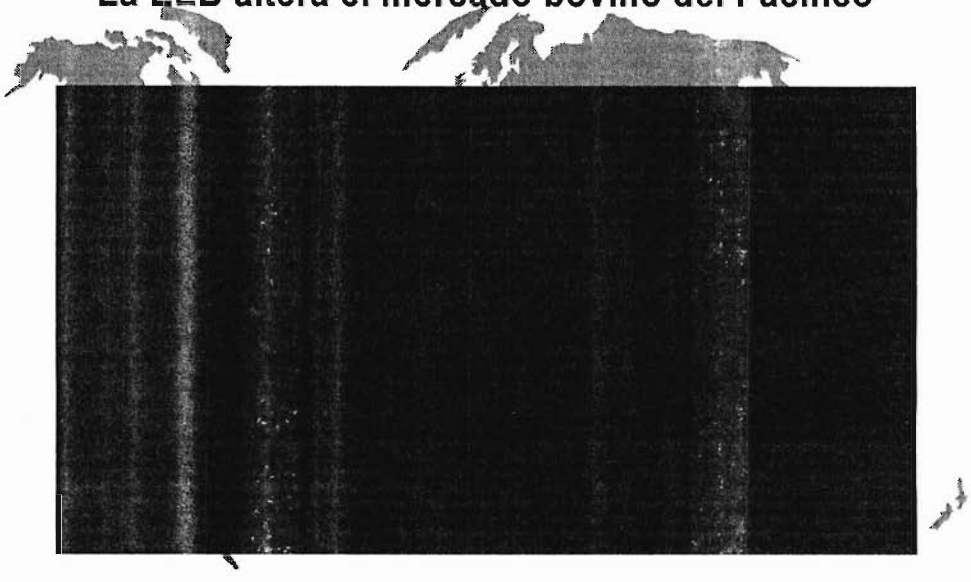
Fuente: INTERBEV de acuerdo a SECODIP

La EEB afecta el Consumo en la UE

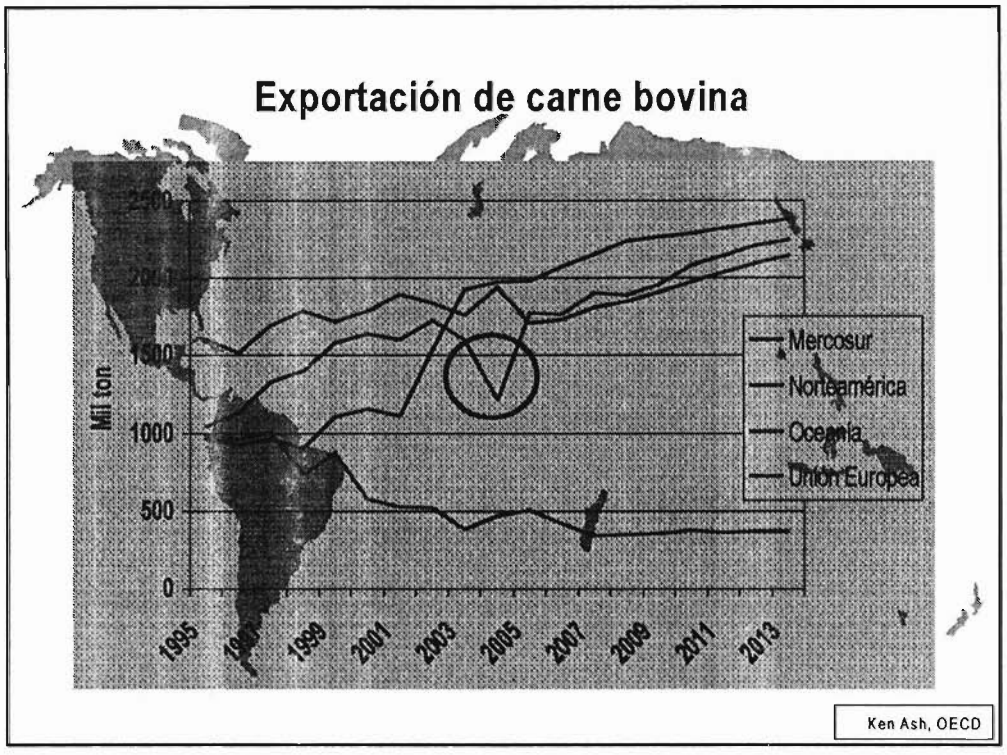


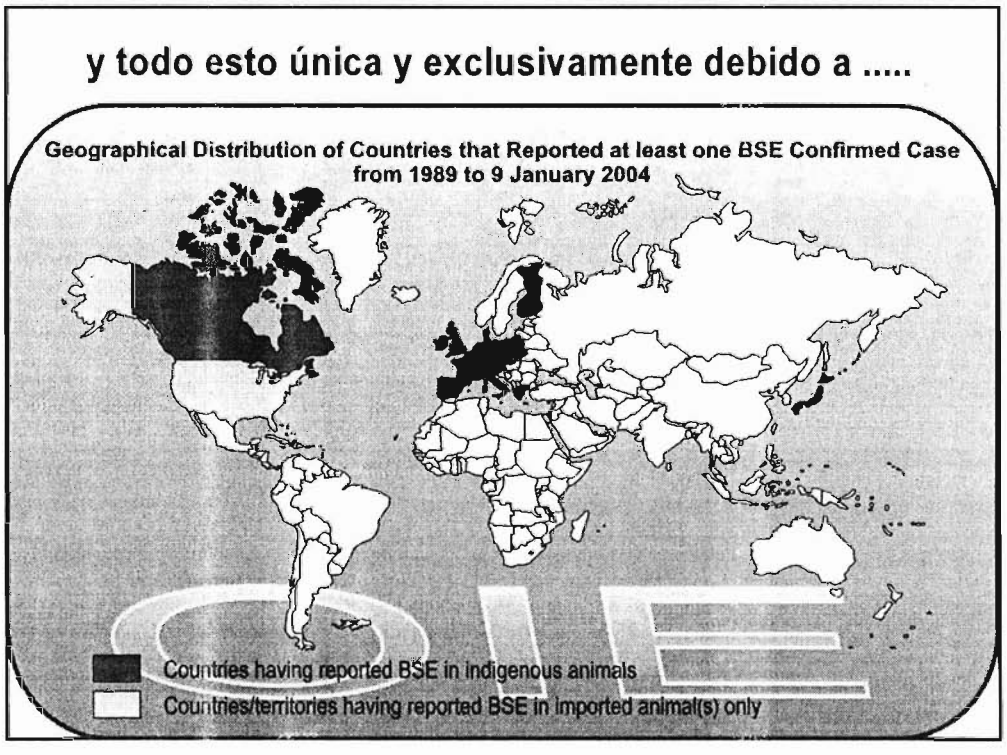
Fuente: Directorate General for Agriculture of the European Commission

La EEB altera el mercado bovino del Pacífico



Ken Ash, OECD


Exportación de carne bovina
Mil ton
2500
2000
1500
1000
500
0
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
Mercosur
Norteamérica
Oceania
Union Europea
Ken Ash, OECD


y todo esto única y exclusivamente debido a .....
Geographical Distribution of Countries that Reported at least one BSE Confirmed Case
from 1989 to 9 January 2004
Countries having reported BSE in indigenous animals
Countries/territories having reported BSE in imported animal(s) only

y todo esto única y exclusivamente debido a .....

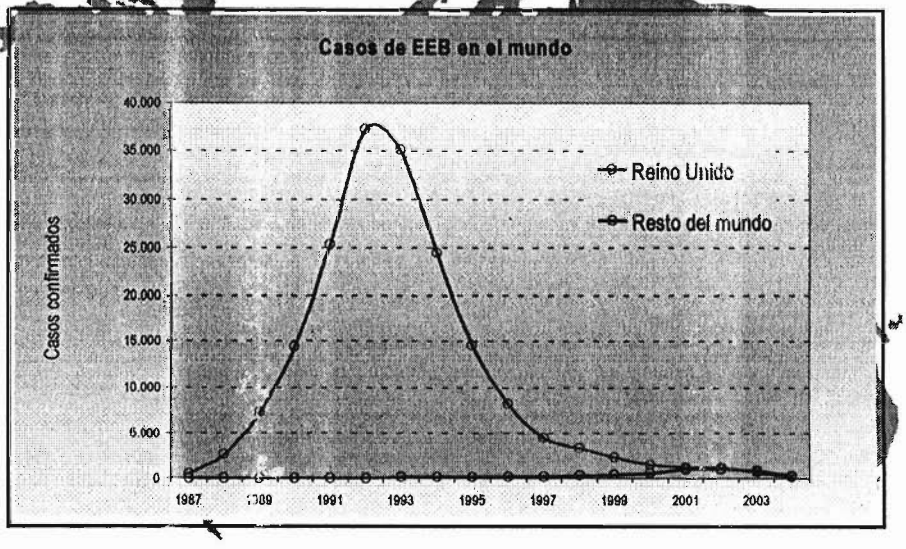
Geographical Distribution of Countries that Reported at least one BSE Confirmed Case from 1989 to 9 January 2004

Irlanda	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Francia	31	161	274	239	137	23	914
Portugal	159	149	110	86	133	46	904
Suiza	50	33	42	24	21	1	454
España		2	82	127	167	71	449
Alemania		7	125	106	54	33	331
Bélgica	3	9	46	38	15	8	126
Italia			48	38	29	...	117
Holanda	2	2	20	24	19	5	76
Polonia				4	5	7	16
Eslovaquia			5	6	2	2	15
Dinamarca		1	6	3	2	1	14
Rep. Checa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Countries having reported BSE in indigenous animals

Countries/territories having reported BSE in imported animal(s) only

... o mejor dicho .....



Fuente OIE

... o peor aún

Personas muertas al año

Enfermedades infecciosas	14.700.000
– Infecciones respiratorias	3.900.000
– SIDA	2.900.000
– Sarampión (niños)	750.000
• Relacionado al tabaco	5.000.000
• Cáncer	6.000.000
• Lesiones y violencia	5.000.000
– Accidentes de tránsito	1.200.000
• Rabia	40.000
• **vCJD (UK)**	**18**

1 muerte cada 2,15 segundos

Fuente OMS

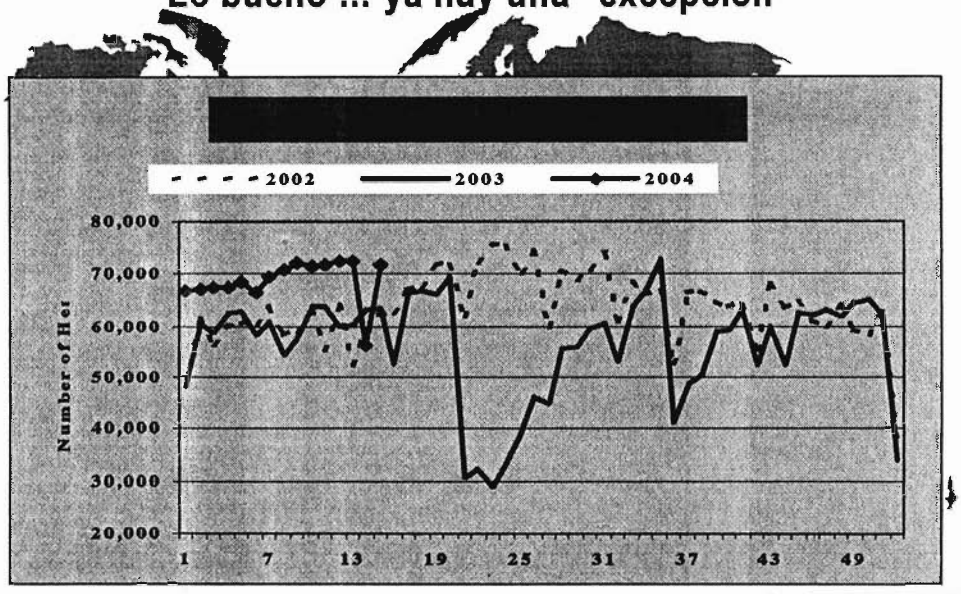
D. Laycraft. CFIA

El tema de la seguridad ... exposición involuntaria al riesgo

"Suponga que una persona le dice que algo es seguro y otra le dijese que es inseguro. ¿A quién le tendería a creer?

Rabobank

Lo bueno ... ya hay una "excepción"



D. Laycraft, CFIA

La respuesta del público canadiense

- La confianza del consumidor permanece alta (junio)
- Se inician manifestaciones de apoyo a la industria
- Crece enojo por cierre de mercados
- Prim[illegible]ís en que el consumo crece posterior a la dete[illegible]un caso .... gracias a un público bien inform[illegible]

D. Laycraft, CFIA

Las razones de este cambio

- Claves
  - Transparencia de la investigación
  - Información científica entregada por CFIA y Health Canada
  - Relaciones públicas informadas y creíbles
- Las medidas proactivas aplicadas desde 1989 dieron sus frutos
  - Barreras
  - Vigilancia
  - Sistema de identificación nacional

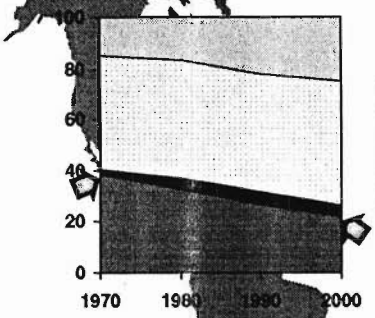
D. Laycraft, CFIA

Algunas lecciones del caso canadiense

- La crisis canadiense fue el resultado del cierre de fronteras y de la disfunción del mercado ... pero no de la pérdida de confianza del consumidor
- Reglas actuales no diferencian entre países que han implementado las medidas adecuadas para disminuir el riesgo y prevenir la diseminación, ... de los que no lo hacen
- El riesgo bajo el enfoque actual desincentiva una correcta vigilancia
- La OIE requiere definir niveles de riesgo, lo que requiere apoyo junto con cumplimiento

D. Laycraft, CFIA

Ahora volvamos al tema del consumo



Ya vimos que el consumo de vacuno está

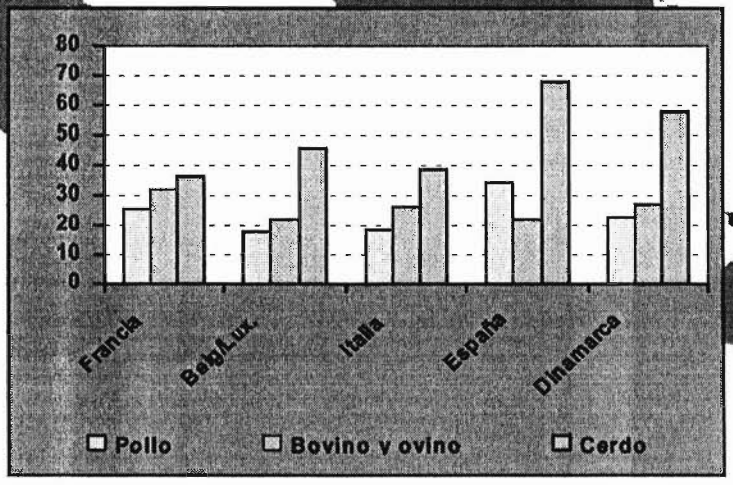
- ... cayendo en algunos países
- ... aumentando menos que las demás carnes en otros países

Entonces, las preguntas son

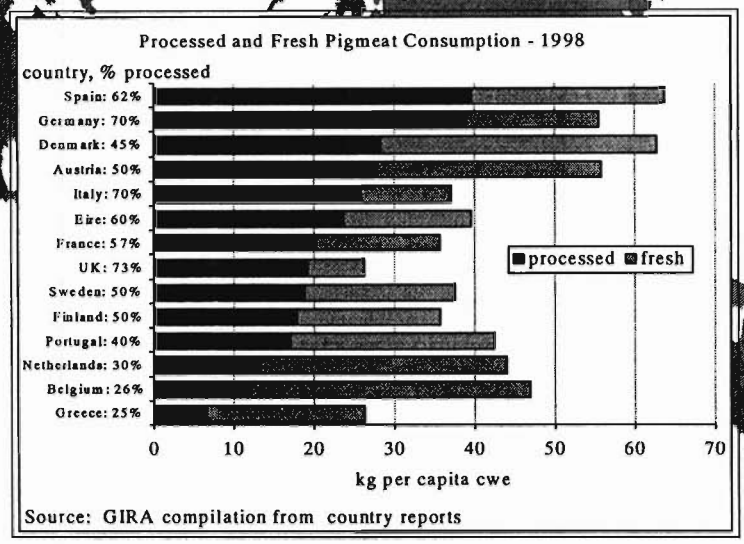
- ¿Qué factores explican este cambio?
- ¿Cómo se puede revertir?

Primero, el consumo varía entre países

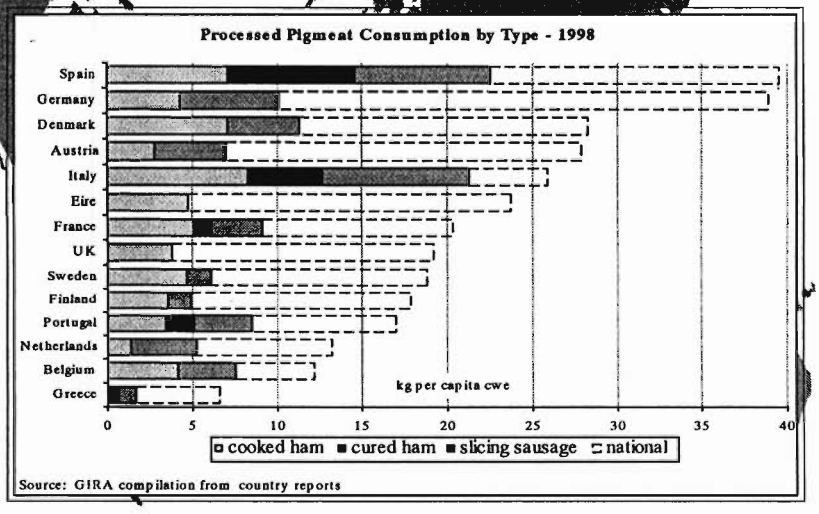
Consumo por persona según producto y país (2002)



Consumo fresco versus procesado



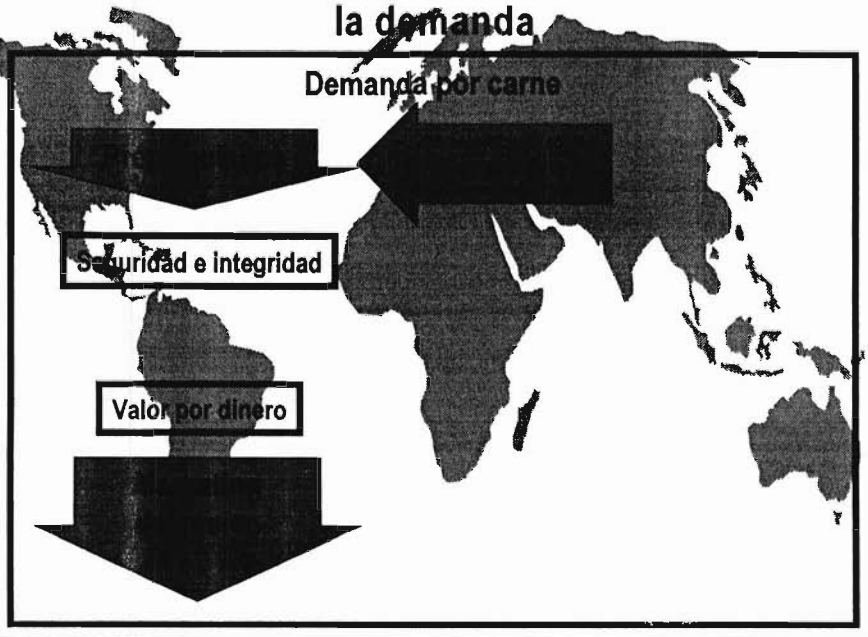
Consumo de distintos procesados

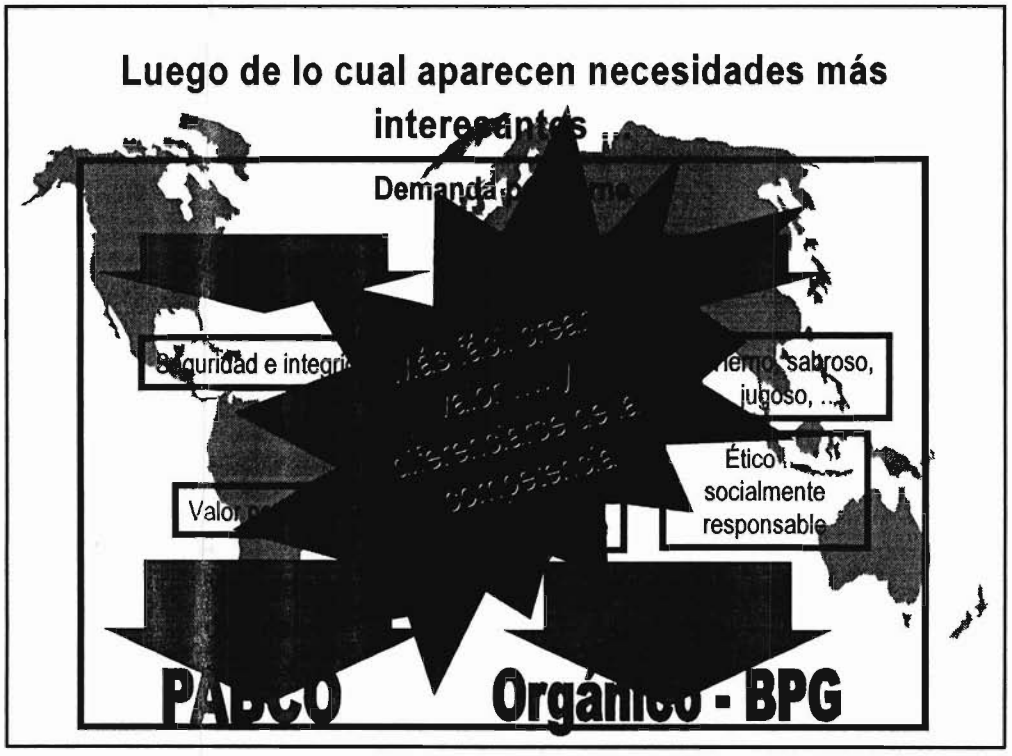


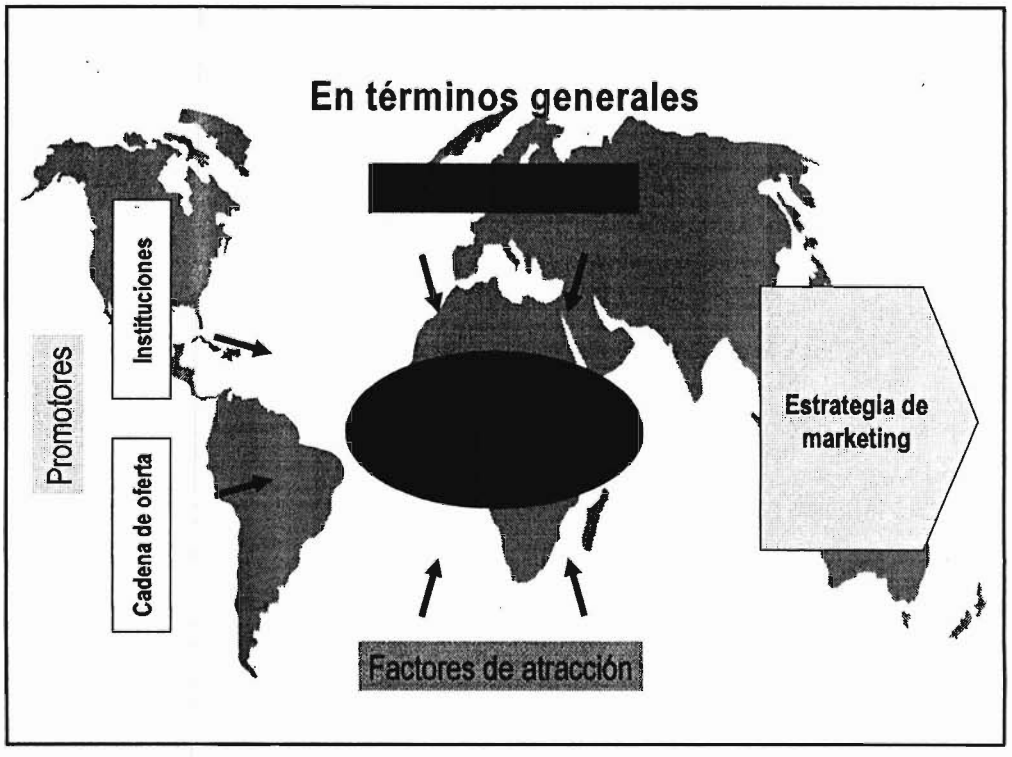
Es decir, no todos somos iguales

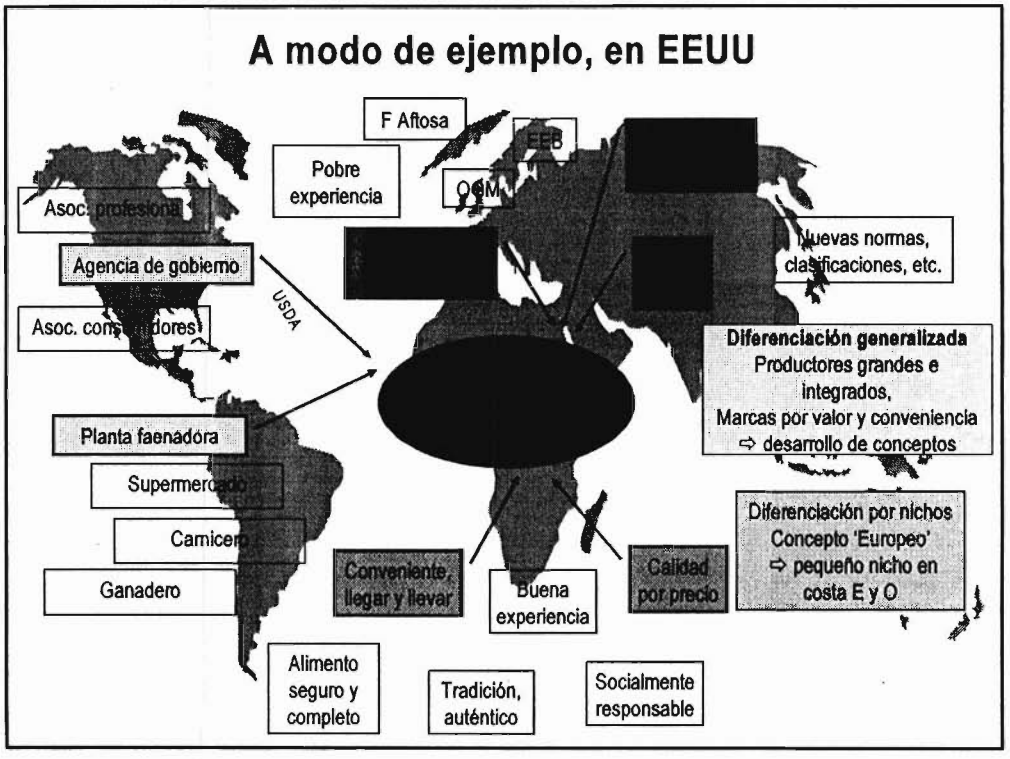
- Globalmente hay grandes diferencias en el consumo de carnes, incluso al interior de grupos relativamente homogéneos (por ej. escandinavos, ¿latinos?, etc.)

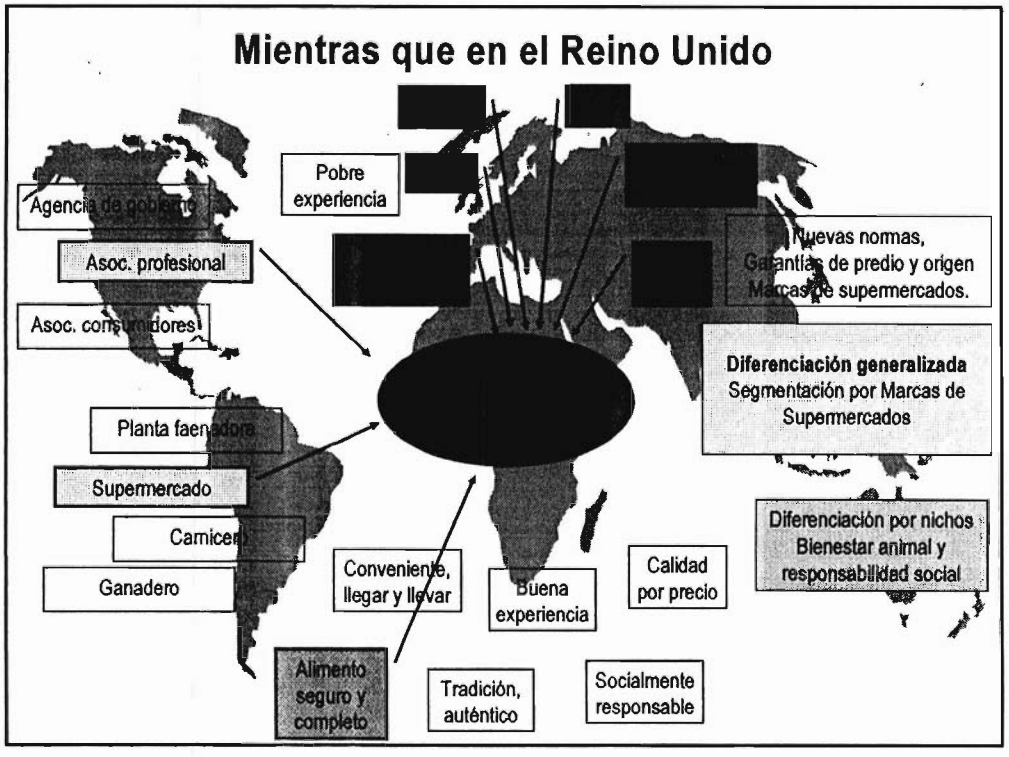
Segundo ... se pueden observar tendencias en la demanda




Luego de lo cual aparecen necesidades más
Seguridad e integri
sabroso,
jugoso, ...
Ético
socialmente
responsable
Valor
Orgánico - BPG


En términos generales
Promotores
Instituciones
Cadena de oferta
Estrategia de
marketing
Factores de atracción


A modo de ejemplo, en EEUU
F Aftosa
EEB
OGM
Pobre experiencia
Asoc. profesional
Agencia de gobierno
USDA
Asoc. consumidores
Planta faenadora
Supermercado
Carnicero
Ganadero
Nuevas normas, clasificaciones, etc.
Diferenciación generalizada
Productores grandes e integrados,
Marcas por valor y conveniencia
⇨ desarrollo de conceptos
Diferenciación por nichos
Concepto 'Europeo'
⇨ pequeño nicho en costa E y O
Conveniente, llegar y llevar
Buena experiencia
Calidad por precio
Alimento seguro y completo
Tradición, auténtico
Socialmente responsable


Mientras que en el Reino Unido
Pobre experiencia
Agencia de gobierno
Asoc. profesional
Asoc. consumidores
Planta faenadora
Supermercado
Carnicero
Ganadero
Nuevas normas,
Garantías de predio y origen
Marcas de supermercados.
Diferenciación generalizada
Segmentación por Marcas de Supermercados
Diferenciación por nichos
Bienestar animal y responsabilidad social
Conveniente, llegar y llevar
Buena experiencia
Calidad por precio
Alimento seguro y completo
Tradición, auténtico
Socialmente responsable

En síntesis

- Conveniencia y bajo costo
- Resto es marginal
  - No hay preocupación respecto de EEB, OGM, ...
- Confianza en grandes marcas, corporaciones

- Confianza en supermercado (seguridad y valor por dinero)
- Opción del consumidor: conveniencia ... bienestar ... pero un limitado "compromiso" personal

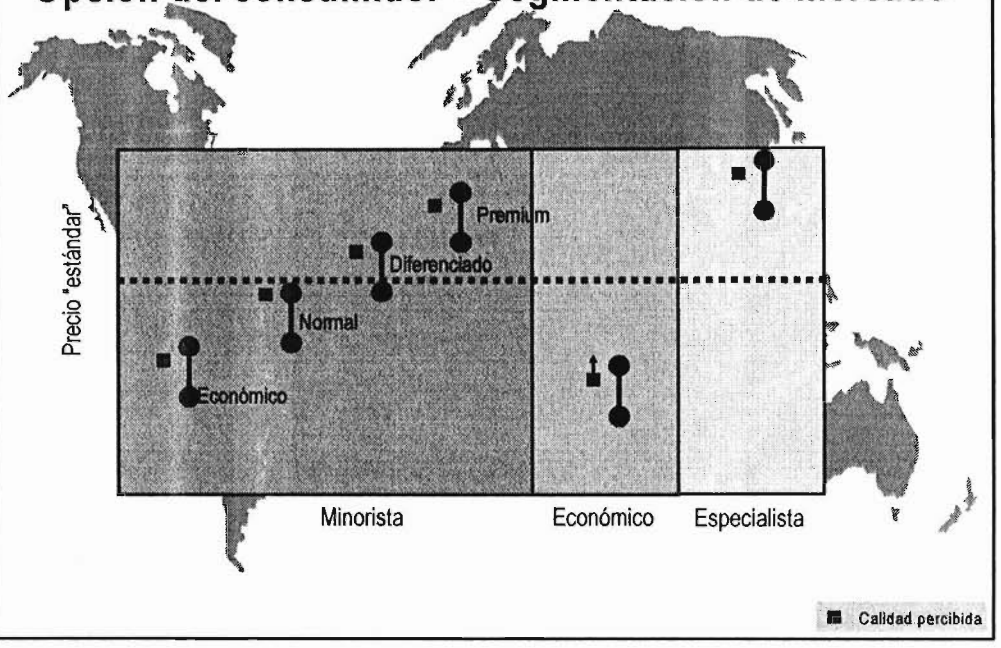
- Cada mercado es diferente: Culturas de consumo, sensibilidades ... y diferentes organizaciones con credibilidad para satisfacerlos
- Se requieren conceptos de marketing específicos con diferentes características de marketing

Entonces ¿qué habría que hacer?..

Opción del consumidor = Segmentación de mercado

- La segmentación de mercado justificada plenamente por crecimiento en carnes diferenciadas
- La cadena de oferta debe proveer una constante diferenciación innovadora y genuina para explotar y satisfacer estos precio
  - Ello incluye carnes como ingredientes

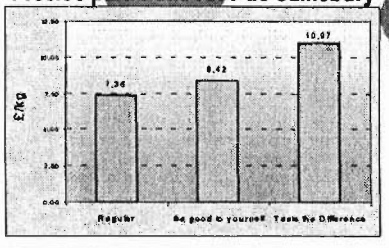
Opción del consumidor = Segmentación de mercado



Reino Unido: Supermercados exitosos en comunicar esta diferencia

	Tesco	Sainsbury	ASDA
Normal	Tesco	Sainsbury	ASDA
Premium	Finest	Taste the Difference	Extra Special
Económico	Value, Better Value	Economy	Smart Price
Saludable	Healthy Eating	Be Good to Yourself	Good For You
Orgánico	Organic	Organic	Organic

Precios para Pollo Kiev de Sainsbury



- Décadas de uso
- Estrategia de marcas (descremar el mercado)
- Especialmente exitosa en productos refrigerados de "conveniencia"

EEUU: Marcas industriales son clave

- Demandan alimentos baratos y convenientes
- Consumidor confía en grandes corporaciones
- El procesador-envasador es poderoso en la cadena
  - Industria altamente concentrada
  - Grandes economías de escala
    - Producción
    - Marketing
  - Efectiva distribución de marcas (detallistas fragmentados, servicios de alimentación)

Desafío: Ofrecer soluciones, no productos ordenados por especies

Hoy	En el futuro
Góndolas con productos por especie	Productos presentados por categoría (uso)

Vacuno	Cerdo
Pollo	Cordero

	Función de la comida
Situación de la comida	

... por sobre todo, ofrecer soluciones según situación y función

Situaciones de consumo de carne:

- Solo o en familia
- Desayuno, almuerzo, cena
- Invitados
- En o fuera del hogar
- etc.

Funciones del consumo de carne

- Rapidez
- Satisfacer hambre
- Digestibilidad
- Bajar de peso
- Lujo
- Punto de encuentro
- Regalo
- etc.

Situación de la comida	Función de la comida

Motivaciones para innovar

- Adaptar los productos a la demanda, estilo de vida y distribución, para revertir erosión del mercado
- Aprovechar mejor toda la canal en términos de calidad y cantidad
- Aumentar el valor agregado y con ello la eficiencia industrial

... diferentes necesidades de marketing para los diferentes segmentos de mercado

Satisfacer incluso las necesidades básicas del consumidor requiere marketing detallado .... y no el enfoque tradicional de commodity

Tendencias detrás de la innovación

- Placer
- Salud
- Aptitud
- Conveniencia
- Ética

Los problemas

- Regulaciones
- Capacidades tecnológicas
- Capacidades comerciales
- Cadenas integradas

Una mirada a las políticas

El contexto político

- Alto "subsidio" y protección
- Prevalece apoyo que distorsiona precios y comercio
- Lento avance en reformas políticas
- Negociaciones comerciales ofrecen una importante oportunidad

Ken Ash, OECD

Ronda de Doha: Aspectos centrales para la agricultura

- Avances reales en el acceso a los mercados

Avances reales en el acceso a los mercados

Aranceles continúan altos

	Total	Dentro de cuota	Fuera de cuota
UE	60	24	97
EEUU	28	11	91
Promedio OECD	97	53	184

Avances reales en el acceso a los mercados

Tarifas para la mantequilla (%)

	Canadá	UE	Japón	EEUU
Dentro de cuota	6,0	59,8	35,0	48,7
Fuera de cuota	306,5	133,4	573,5	107,5
Nuevos límites				
Reducción de 45%	*168,6*	*73,4*	*315,4*	*62,1*
Reducción de 60%	*122,6*	*53,3*	*229,4*	*46,0*

Ronda de Doha:
Aspectos centrales para la agricultura

- Avances reales en el acceso a los mercados
- Una cobertura más completa de las medidas que afectan las exportaciones

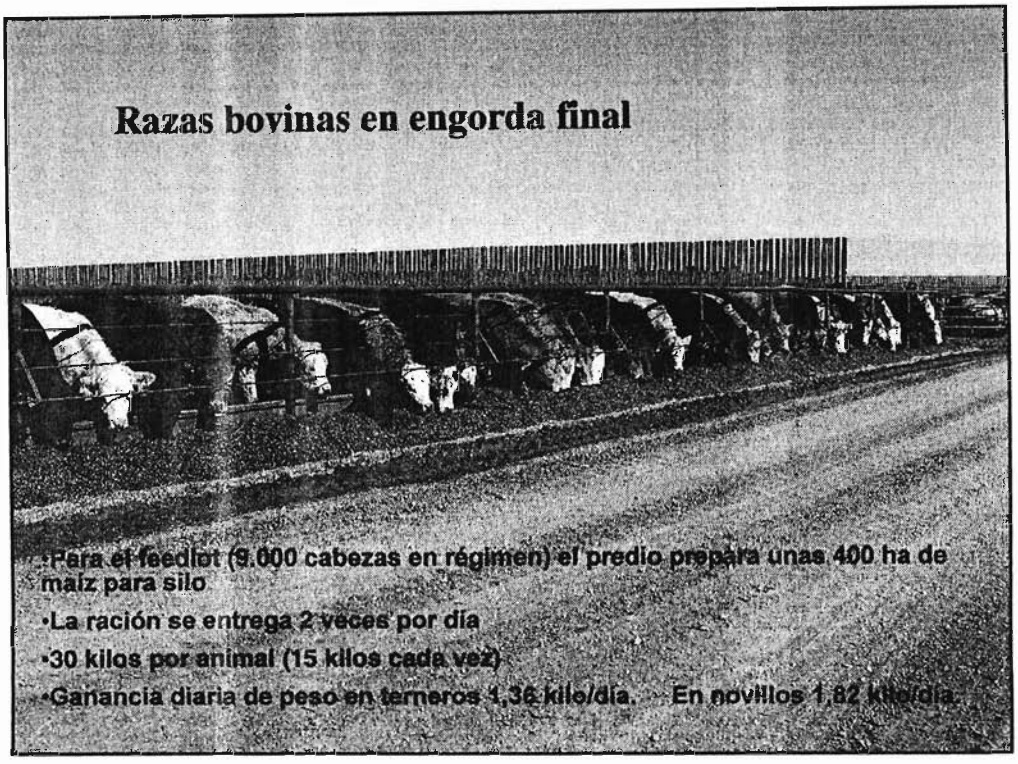
Una cobertura más completa de las medidas que afectan las exportaciones

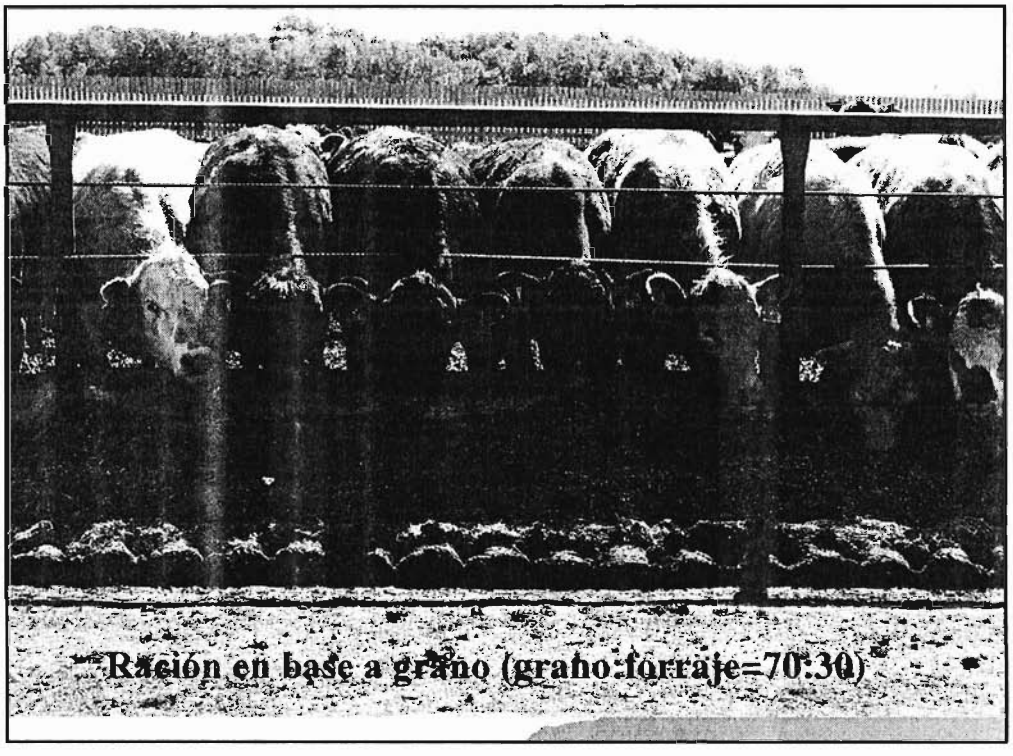
- Los subsidios de exportación fueron limitados en OMC
- Pero su uso continúa siendo importante en algunos productos (leche, azúcar, productos procesados, ...)
- Y no todas las medidas están bien reguladas.


Muchas gracias

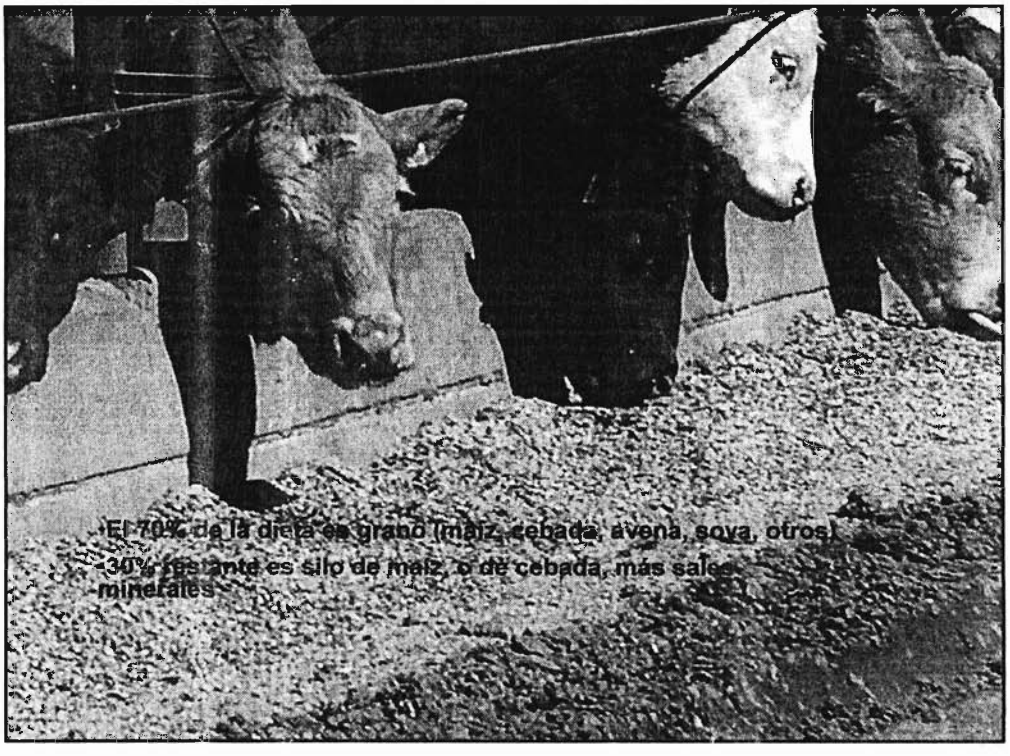

FEEDLOTS
IN
CANADA
Antecedentes prácticos
de visitas a feedlots
en Manitoba


Manejo de feedlots en Canadá

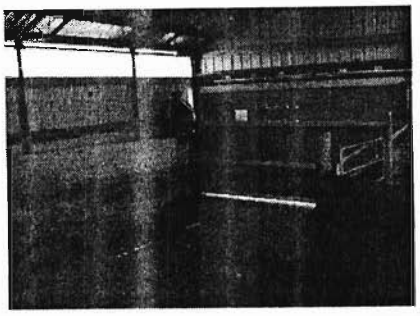
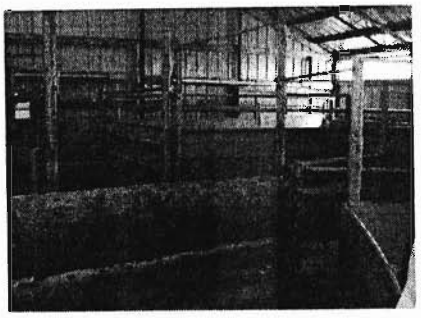
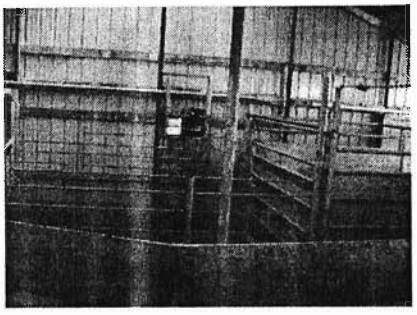
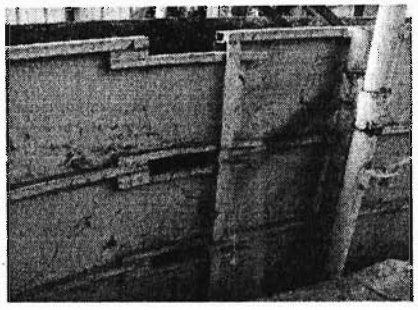

Razas bovinas en engorda final
•Para el feedlot (9.000 cabezas en régimen) el predio prepara unas 400 ha de maíz para silo
•La ración se entrega 2 veces por día
•30 kilos por animal (15 kilos cada vez)
•Ganancia diaria de peso en terneros 1,36 kilo/día. En novillos 1,82 kilo/día


Ración en base a grano (grano:forraje=70:30)

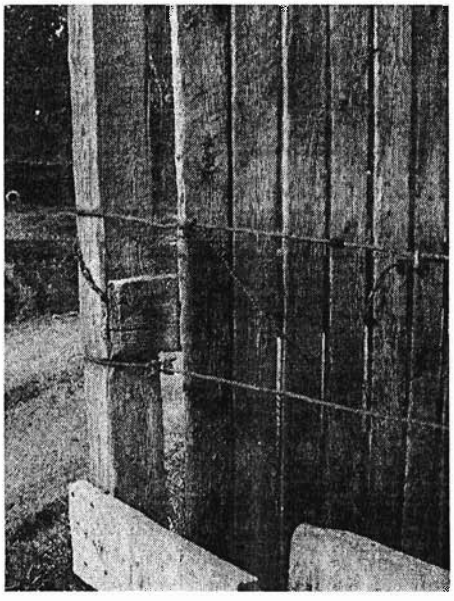
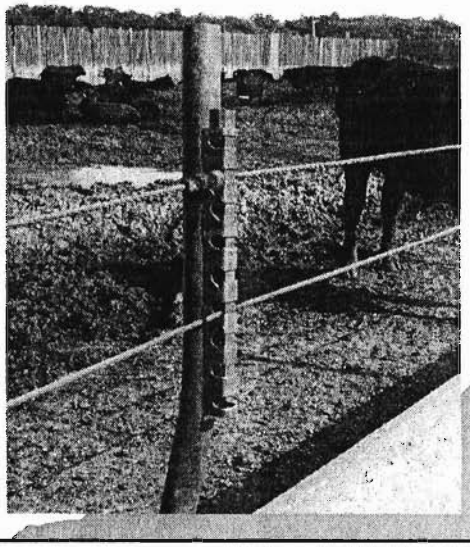

GRANO GRANO GRANO


El 70% de la dieta es grano (maíz, cebada, avena, soya, otros)
-30% restante es silo de maíz, o de cebada, más sales minerales

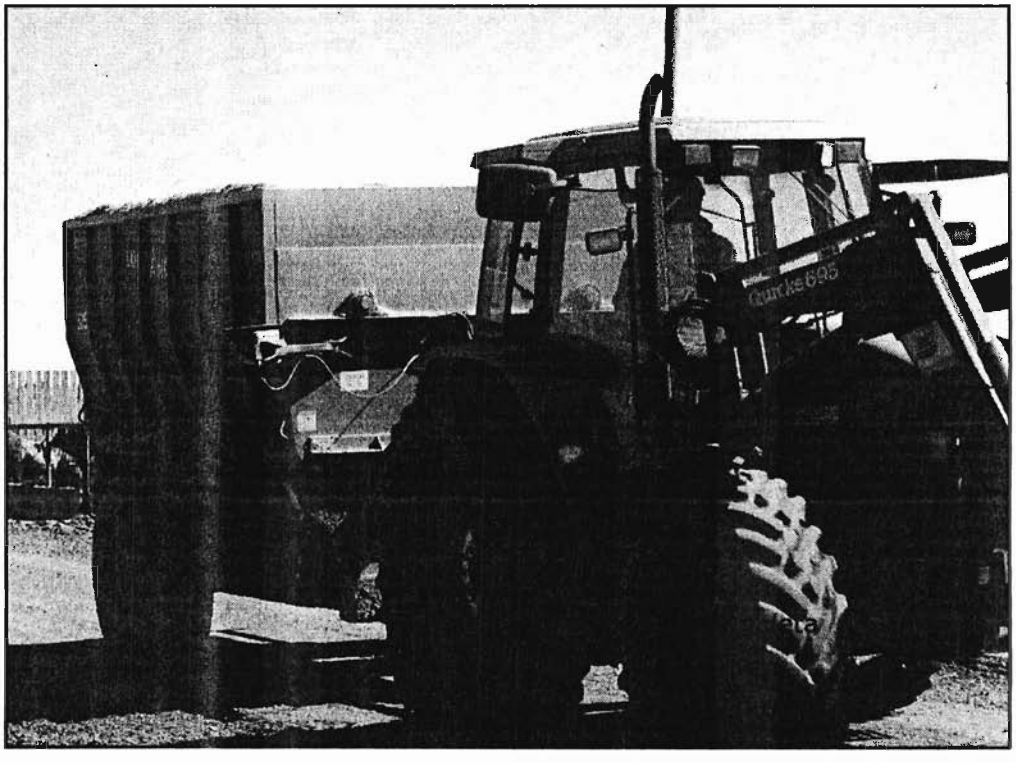
Instalaciones para pesaje y manejo general

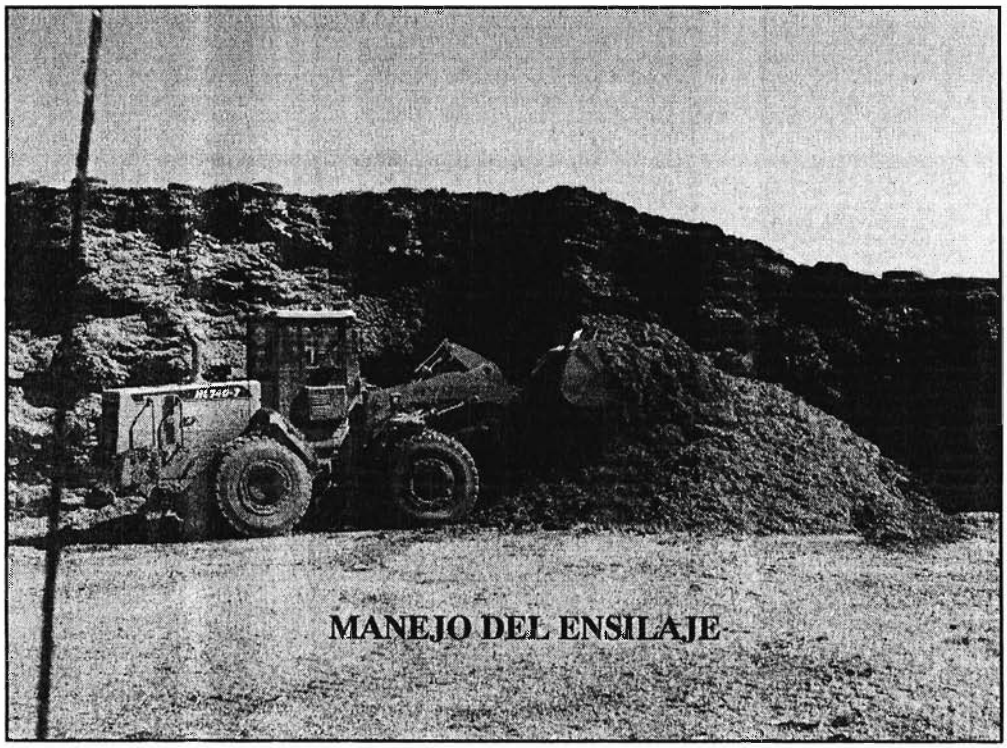
Estructuras relativamente simples

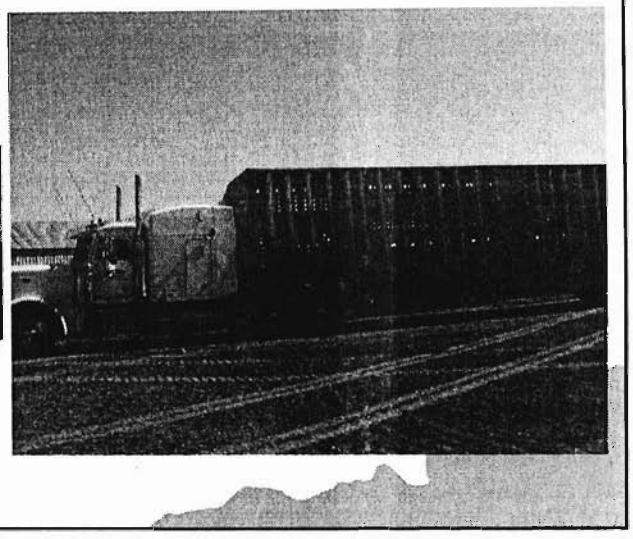

•Manejan una ración inicial, una intermedia y una de término (más larga que las anteriores)
•A nivel de los 400 kilos se hace una "limpieza" de los animales que no engordarán lo previsto
F6




MANEJO DE GRANOS PARA EL FEEDLOT
Procesos mecanizados
2 personas manejan 1.800 novillos


MANEJO DEL ENSILAJE

Camion de ganado: 2 pisos y capacidad para 50 animales terminados



EFECTO DEL INVIERNO

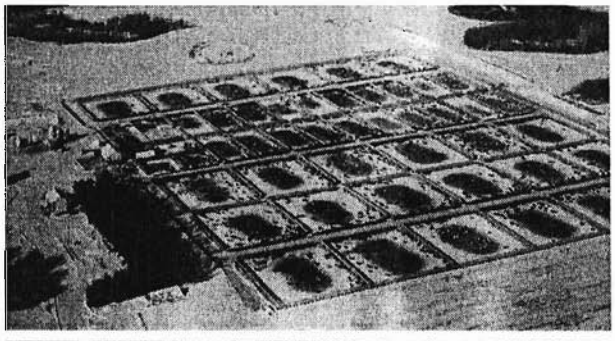
Medias de -20 a -30 C
Extremas de -55 C

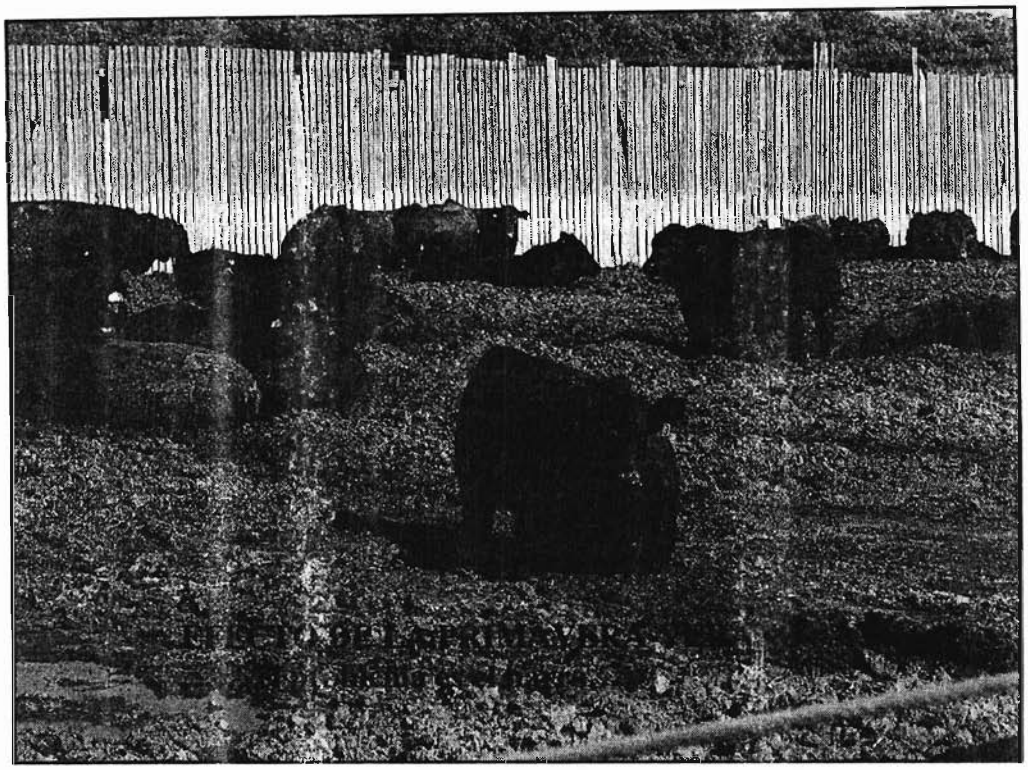
10% más consumo
10% menos ganancia peso

Bebederos calefaccionados

Areas dormidero "en alto"
(uso de paja de lino)

Sólo protección viento





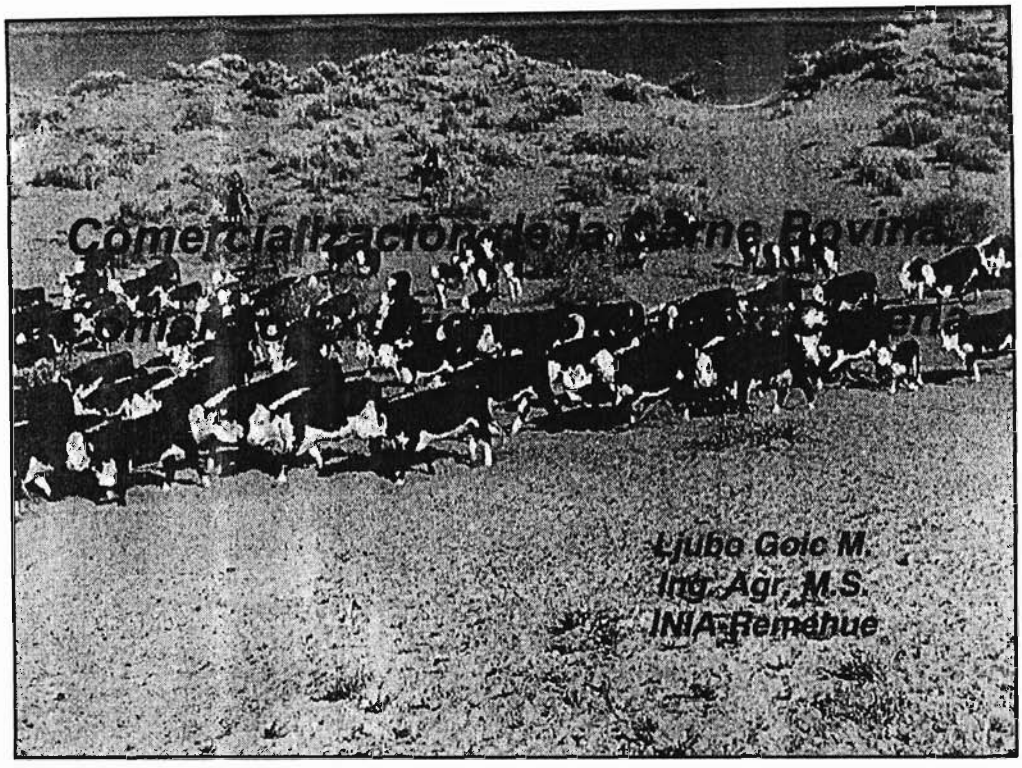
Comentarios finales

•El negocio de engorda se ve incierto a causa de la suspensión de ventas a USA, por la BSE

•El precio actual del ternero destetado y la venta del gordo no les permite mantenerse en el negocio

•Aún la gente no quiebra, pero si se mantiene esta situación se producirán los primeras quiebras (los bancos están prestando contra hipotecas)

•Aún cuando en Canadá bajó el precio y subió el consumo, los productores estiman que esto no alcanza para salvar el negocio.



Cambios en la cadena de alimentos del mundo
Carne
Una perspectiva de productores

La Producción de la carne vacuna en el mundo :

*** Hay solo seis o siete países que poseen el volumen crítico**

*** Gran diferencia en costos de producción**

*** Amplias diferencias en sistemas de administración, manejo, genética y consecuentemente calidad del producto final.**

¿Que países producen Carne vacuna?

País	Millones de Cabezas	MM tons	Consumo
USA	96,5	11,4	44 kg/habitante
UE	80,3	7,5	18 kg/habitante
Brasil	158,4	7,3	35 kg/habitante
Argentina	49,4	2,8	69 kg/habitante
Australia	26,3	1,9	36 kg/habitante
Canadá	12,7	1,2	31 kg/habitante
N. Zealand	9,3	0.6	35 kg/habitante

Juntos ellos producen 90% de la carne vacuna comercializada en los mercados mundiales

¿Comparaciones de Costos Producción?

* Diferencias en Costos están basadas en diferencias en costos fijos por unidad de producción
* No teniendo en cuenta el reciente gran aumento en los valores de los granos

País	Costo/kg vivo $
UK	1.390
USA	1.158
Brazil	463
Argentina	500
N.Zealand/Australia	521

Salidas para productores

* Concentración minorista
* US -
70% de la carne vacuna de USA se vende a través de minoristas
Los 5 Tops controlan el 40% en los próximos 10 años estará cerca del 70%

* UK

	1999	2003
Mercado de ganado en pie terminado, en remate	43%	20%
Compra directa por Frigoríficos	57%	80%

Implicancias

* Grandes jugadores compiten principalmente en costos. ¿Quiénes pueden?

* Así como los mercados se concentran, aumentan las oportunidades para pequeños productores de nichos como la UK, de ofrecer servicios especializados tales como carne vacuna de calidad en diferentes formas

* Pequeños productores deben ser versátiles, bien capitalizados y capaces de reaccionar rápidamente a demandas cambiantes

ALGUNAS OBSERVACIONES:

* Precio del suelo $ 1.500.000 riego a $ 2.500.000 riego Infraestructura de riego y canales. Riego mecanizado.
* Valor del agua. Derechos mayores que 1 ha de suelo
* Especialización según mercado. Manejo y tipo de animal "Jap Ox". Novillo pesado para exportación
* Negocio Crianza reemplazo
* Reproductores : 95% usa toros. Precio : sobre $ 1.500.000
* Eliminación de Toros de razas Continentales. (Color y Brillo de la carne) engorda larga
* Rentabilidad Recría : 3%. Valor Nov. Para Feedlot $ 950.
* Discusión Feedlot. Corrales 200 a 400 cab. G.P.V. Mercado Americano 1.8 Kg/d, 150 días.
* Mercado Asiático 0.8 Kg/d en 300 días
* Disminución del ganado Ovino (50%). Expectativas. Mercado Oriente, carne y lana (fina)

Entonces - ¿Por qué Carne Especializada?

* Diferenciación de la calidad

* Aumentar la confianza general del consumidor y la lealtad nacional

* Recordar que no todos los consumidores quieren la misma cosa

* El producto debe estar claramente identificado

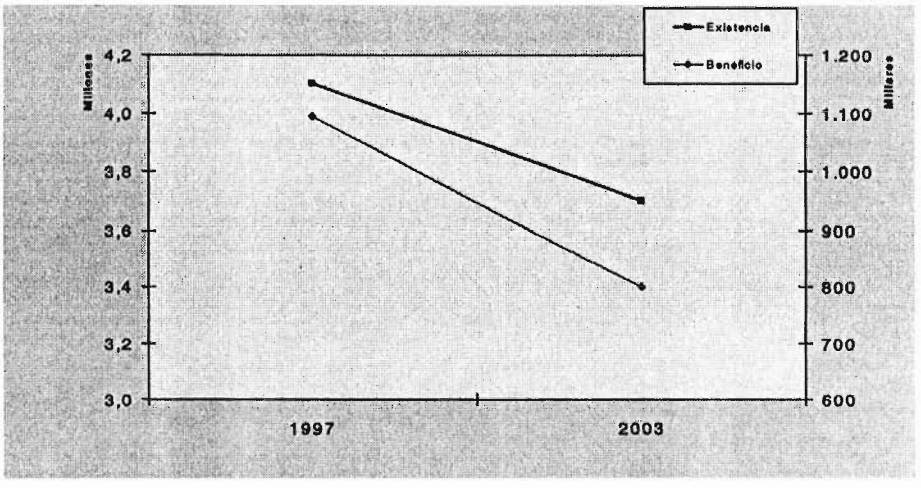
* La etiqueta debe ser la garantía

Algunas ideas para analizar

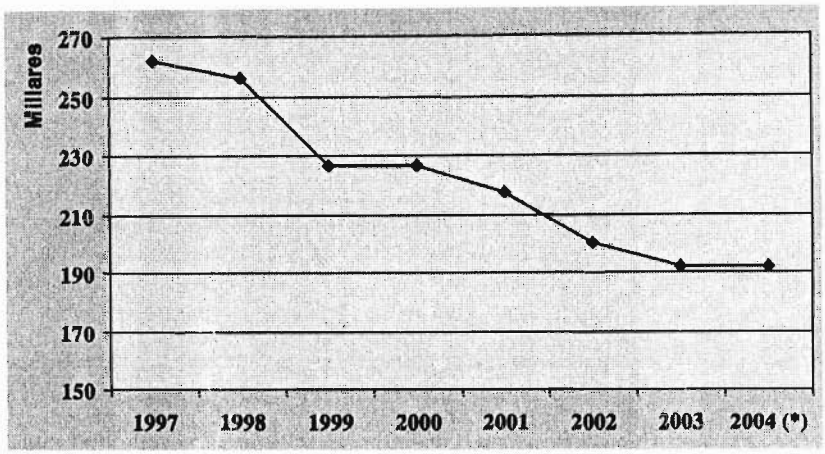
En el país :

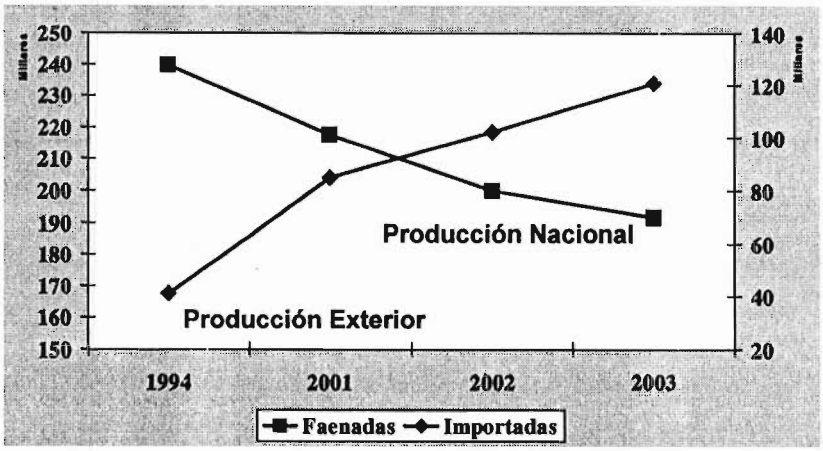
* ¿Nuestra ganadería es una actividad estancada, en decadencia o en crecimiento?
* Discusión profunda con personas expertas, ¿por qué estamos en la actual situación?
* ¿Cuáles son los problemas? ¿ Que vamos a priorizar?
* ¿Cuáles serían las soluciones posibles y potencialidades?
* ¿Cómo juntar las instituciones ligadas al rubro para ir por el mismo camino? ¿Confianza?¿Rivalidades?
* ¿Cuál sería la estrategia?

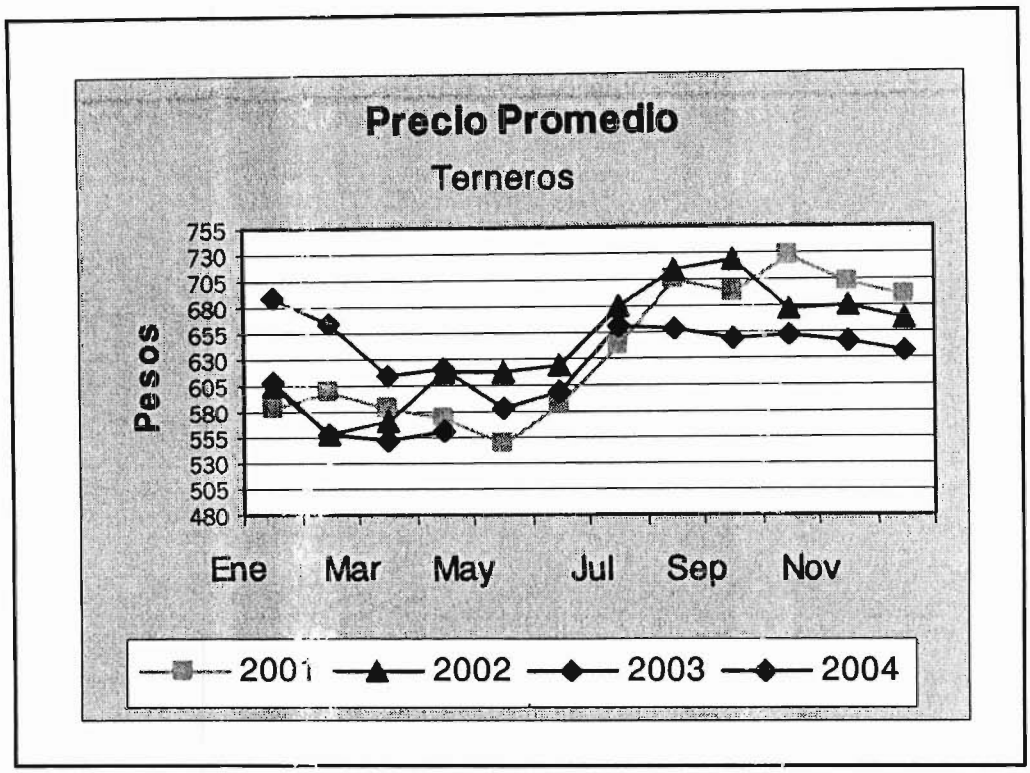
Tendencias de Existencias y Beneficio de Ganado Bovino

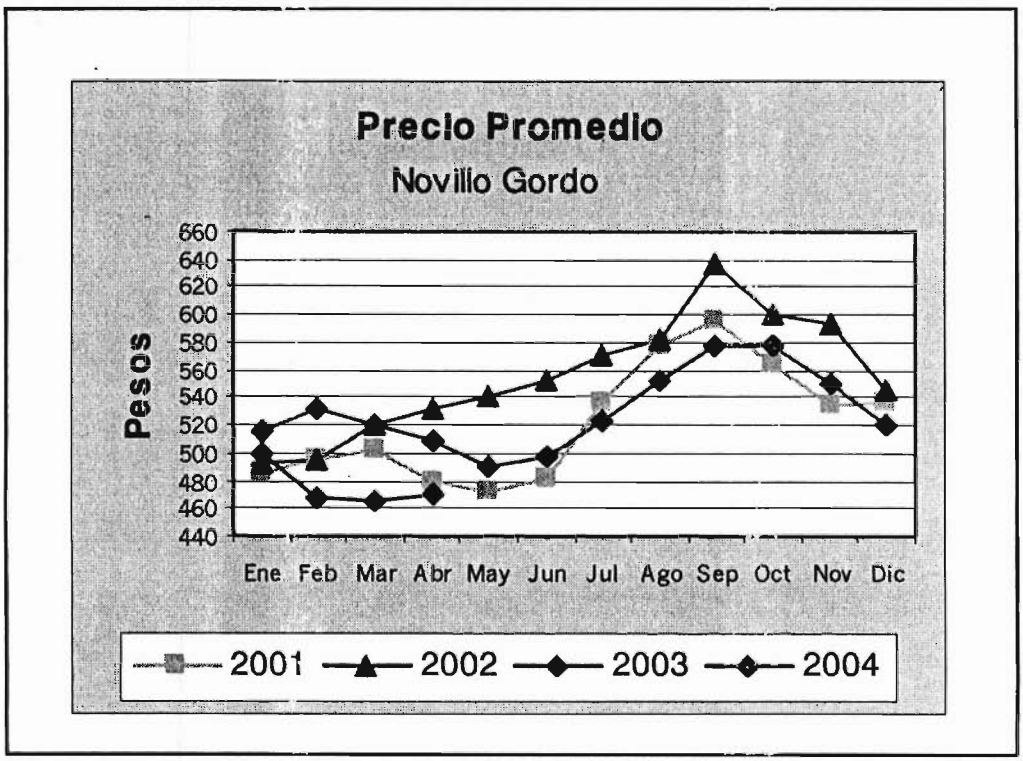


Producción de Carnes en toneladas

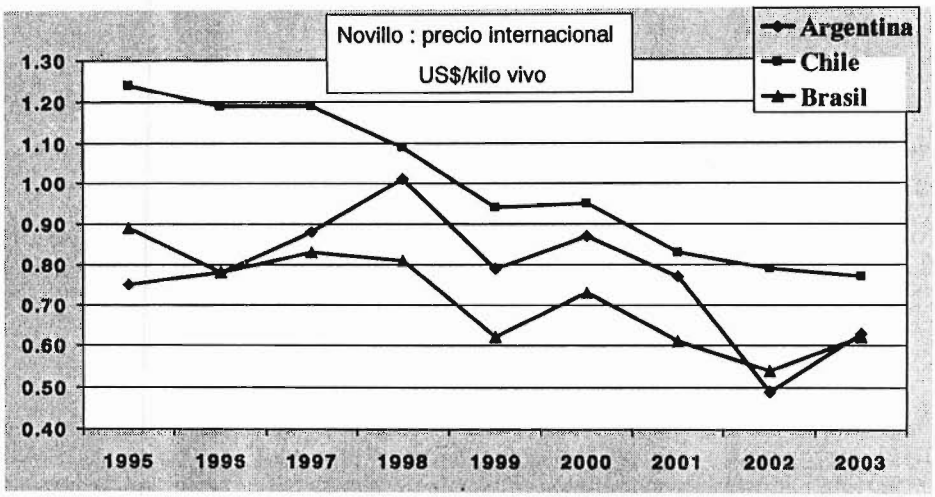





Precio Promedio
Terneros
Pesos
755
730
705
680
655
630
605
580
555
530
505
480
Ene
Mar
May
Jul
Sep
Nov
2001
2002
2003
2004


Precio Promedio
Novillo Gordo
Pesos
660
640
620
600
580
560
540
520
500
480
460
440
Ene
Feb
Mar
Abr
May
Jun
Jul
Ago
Sep
Oct
Nov
Dic
2001
2002
2003
2004

Evolución de precios del novillo vivo en el Mercosur

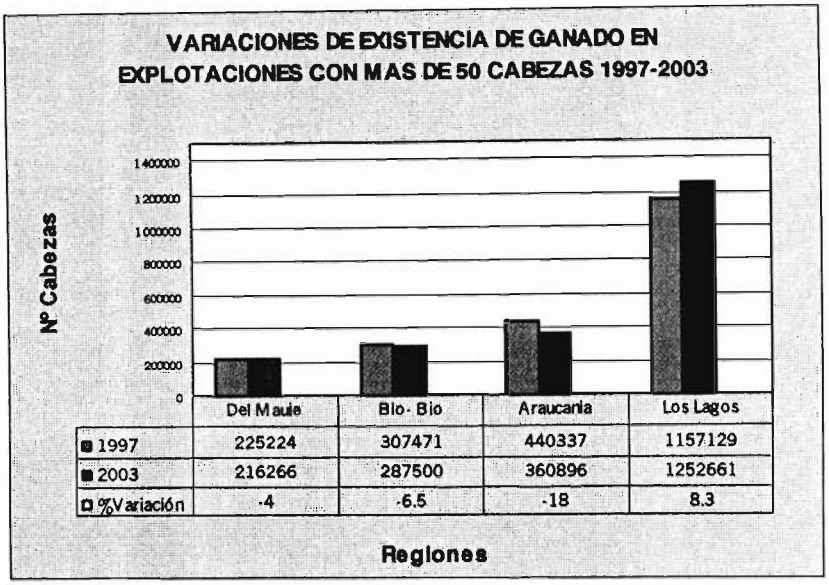


2) En Toneladas:

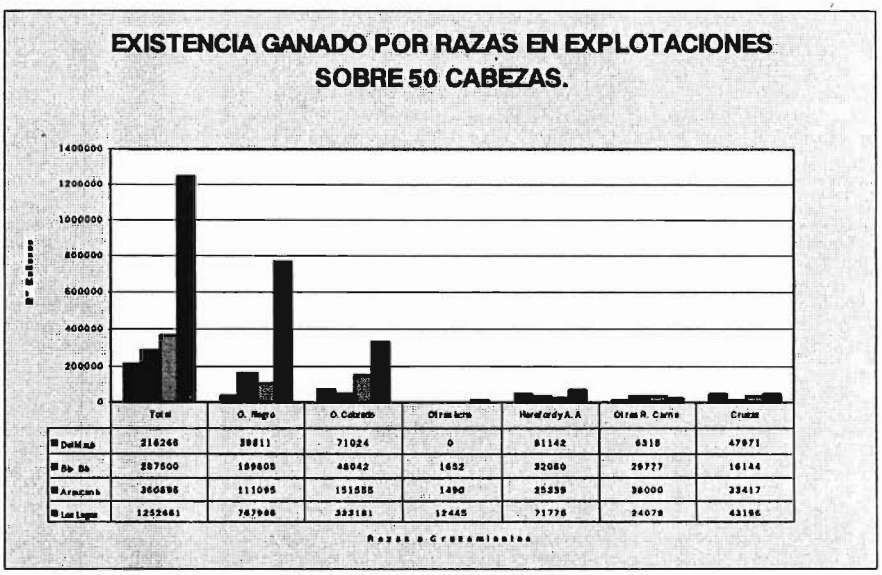
	2004	2005	2006	Observaciones
USA	0	500	2.000	Carne congelada
México	1.000	1.500	2.000	Carne congelada
Cuba	1.000	1.200	1.500	Carne congelada
CostaRica	400	600	700	Carne al vacío y subproductos
Israel	1.000	1.500	2.000	Carne congelada con hueso
Japón	1.500	2.000	2.500	Subproductos y carne al vacío
Com.Europea	450	1.000	1.300	Carne vacío (duración 90 ds.)
Corea y Otros	1.000	1.700	2.000	Carne vacío y congelada
Hamburguesas	700	1.000	1.000	Congelada
Total Anual	7.050	11.000	15.000	

	2004	2005	2006
Contenedores mes	30	46	62
% de producción nacional	5%	7%	10%

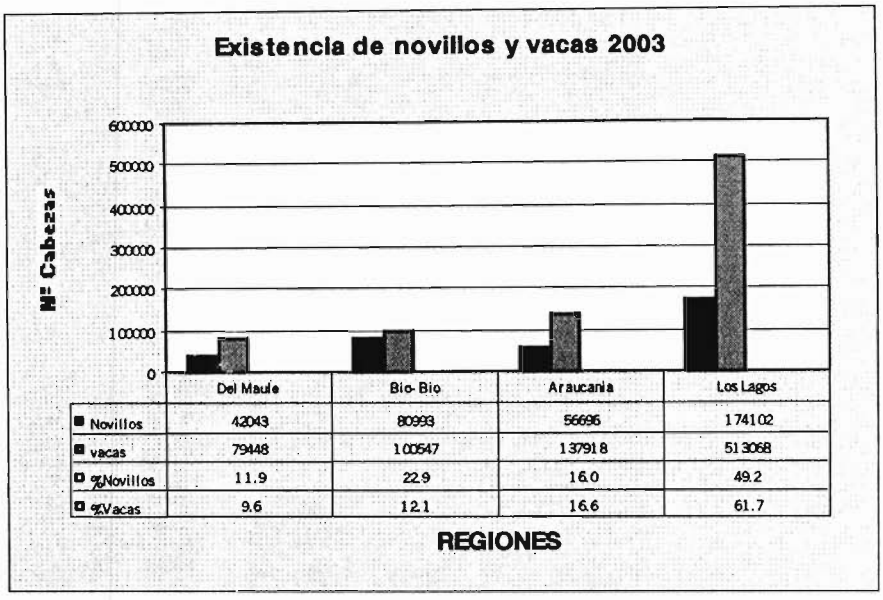
COMPOSICIÓN	
Vacío	20%
Congelado	60%
Subproductos	20%
Total	100%

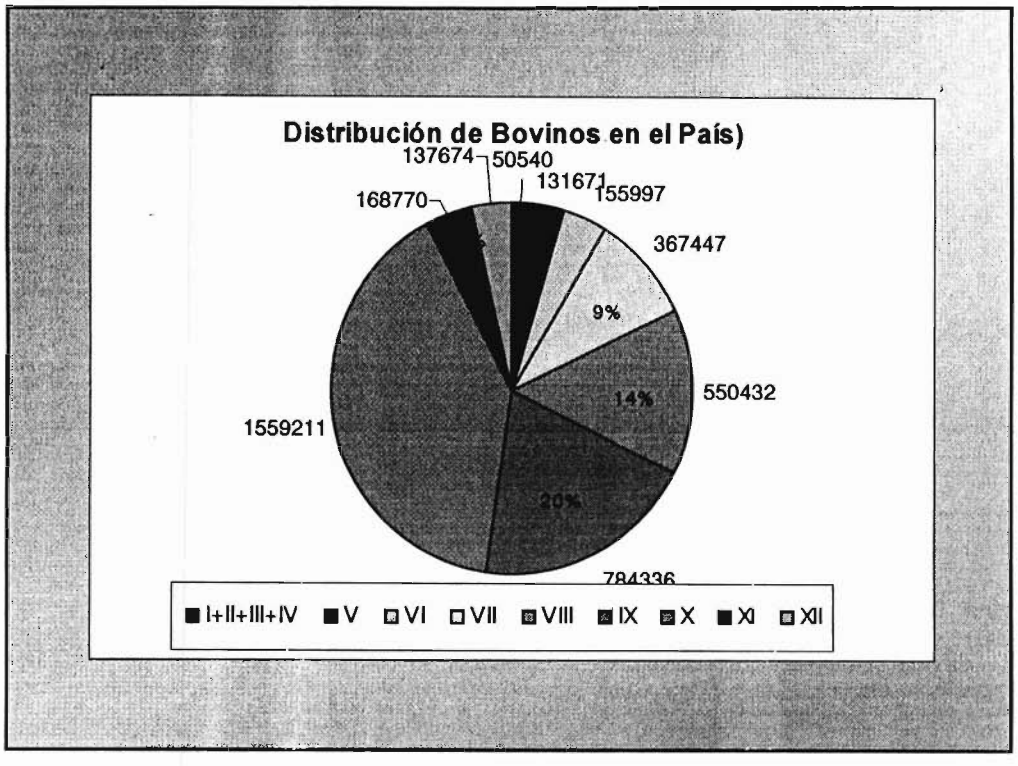


	Del Maule	Bio- Bio	Araucanía	Los Lagos
1997	225224	307471	440337	1157129
2003	216266	287500	360896	1252661
%Variación	-4	-6.5	-18	8.3



	Total	O. Negro	O. Colorado	Otras lechera	Hereford y A. A	Otras R. Carne	Cruzas
Del Maule	216266	39811	71024	0	81142	6315	47971
Bio Bio	287500	189803	48042	1652	32080	29727	16144
Araucanía	360896	111095	151555	1490	25339	36000	33417
Los Lagos	1252661	767986	323181	12445	71776	24078	43196


Existencia de novillos y vacas 2003
Nº Cabezas
600000
500000
400000
300000
200000
100000
0
Del Maule
Bio-Bio
Araucania
Los Lagos
Novillos 42043 80993 56696 174102
vacas 79448 100547 137918 513068
%Novillos 11.9 22.9 16.0 49.2
%Vacas 9.6 12.1 16.6 61.7
REGIONES


Distribución de Bovinos en el País)
137674
50540
131671
155997
168770
367447
9%
550432
14%
1559211
20%
784336
I+II+III+IV
V
VI
VII
VIII
IX
X
XI
XII

Para el mercado de exportación, hay que estudiar

¿ Que tipo de carcasa quiere el mercado?

¿ Que mercado nos conviene?

¿ Que modificaciones debemos introducir?

¿ Como valorizar al máximo nuestro recurso pradera?

¿ Como satisfacer exigencias del mercado?

Porque exportar :

* Precio mercado interno ⟶ Mercosur
* Precio exportación : Mayor y diferente según destino
* Menor costo que países importadores
    * Calidad ¿qué es calidad? ¿para quién?
    * Volumen – economía de escala
    * ¿Producción solo a pradera?

¿ Que producir en la XI Región?

Terneros - Crianza

* Distribución disponibilidad praderas
* Capacidad de guardar energía de las vacas de cría (carne)
* Costo competitivo ¿?
* Diferenciación de precio ¿20%?
* Aprovechamiento de sectores difíciles
* ¿Como mejorar la eficiencia de producción de terneros?

Recría (destete-animal para engorda)

* Período de pastoreo (7- 8 meses)
* Buenas praderas/o baja carga
* Buenas ganancias de peso
* Solo 1 invierno (7-8 meses a 11-12 meses)
* Mayor producción por superficie

Problemas :

* Suplementación invernal
* Requerimientos

Recría – Engorda (200 – 450 kg)

* Debería pasar solo 1 invierno (costo)
* Requiere mayor suplementación
* Mayor disponibilidad de pradera de buena calidad a carga baja
* Ajustar requerimientos de Mercado

(grasa, marmoleo, tamaño canal, color de grasa, etc...)

¿Dónde hacer el sistema elegido?

* Máximo márgen económico (Análisis de alternativas)
* Adecuarse a las condiciones socio-económicas
* Condiciones agroecológicos del predio
* Distancias a los centros de compra y venta
* Satisfacción del ganadero

Sistemas Productivos

95% vacas son cubiertas con toros

* Crianza (Hereford – A.Angus – Shorthorn)
* Recría – Destete distintos pesos → 430 kg(18-24 meses)
* Engorda ⇒ Feedlot + 430 kg P.I.

Feed lot

* 450 kg (AU$2,08 a $940), pago contado (2 años + 300d. Feed lot)
* 1 ton sorgo AU$175 - $79/kg
* Período Feed lot 200-300 días/venta + 550 kg
* Mercado doméstico 400-420 kg

Terneros

* Venta al destete/recriadores → Feed lot
* Precio $1.356 a $1.446/kg (2% Rentabilidad)

Australia

"Tradicionalmente produce pasto" "Producto limpio y puro"
* Exporta el 60% de su producción
* Existencia aprox. 26 millones de cabezas
* 1 millón de cabezas se exportan en pie/anualmente
* 850.000 cab. en confinamiento. 2,1 millón terminados 2003

- Cadena de Suministro
- Los productos → Marcas, oportunidad de:
  * Agregar valor
  * Formar alianzas en la cadena
  * Participar en sistemas prod. de calidad
  * Aumentar los ingresos
- Consumidores – Marcas ¿Por qué?
  * Ofrece valores y atributos
  * Es una promesa
  * Sistema de producción de calidad alimentaria (garantiza terneza)

Enfoques en Investigación de la Industria de la Carne

(Centro Cooperativo de Investigación para el ganado y calidad de la carne, Universidad de New England)

- Posicionar a Australia en la liberalización de los mercados
- Identificar los factores genéticos y no genéticos que afectan
  * Terneza
  * Marmoleo
  * Rendimiento
  * Color de la carne
  * Características de la grasa
  * Consumo neto de alimento
- Investigación en Manejo y Producción de los rebaños
  * Optimizar los costos – competitividad
  * Integración a nivel predial de los recursos
  * Disminuir los períodos productivos (eficiencia)
  * Adecuación a nuevos mercados

Principales Limitantes de la Actividad Ganadera (% de explotaciones)

Provincias	Capital de Trabajo	Costo de Crédito	Tamaño Explotación	Calidad de Pradera	Precio de Animales
CAUTIN					
50 – 99	50	19	27	18	56
100 – 299	29	22	28	15	67
300 o más	28	14	23	11	75
VALDIVIA					
50 – 99	47	7	31	26	69
100 – 299	43	11	26	13	83
300 o más	27	17	12	14	91
OSORNO					
50 – 99	35	13	22	30	48
100 – 299	37	20	26	21	67
300 o más	27	25	11	22	89
Llanquihue					
50 – 99	61	7	26	20	71
100 – 299	43	10	19	16	81
300 o más	30	16	5	9	93

Plan desarrollo ganadero

En Investigación :

* ¿Cómo hacer del rubro un buen negocio?*
* ¿Cuales son las proposiciones del INIA?
* ¿Cómo transferirlas ¿Cambio?
* ¿Que tipo de Investigación? ¿Captura?
* ¿Como hacer exportable gran parte de nuestros animales? (80% animal lechero)
* ¿Cómo participar funcionalmente en la cadena de la carne?
* ¿Como juntar las Instituciones de Investigación, Desarrollo, Financiero y Comerciales del rubro en un solo proyecto ?
* ¿Consejo Nacional-Regional?

INFORMACION RECOPILADA DE PRESENTACIONES EN CONGRESO

WTO developments & the beef industry

Fiona Boal
Associate Director, Food & Agribusiness Research
Rabobank International

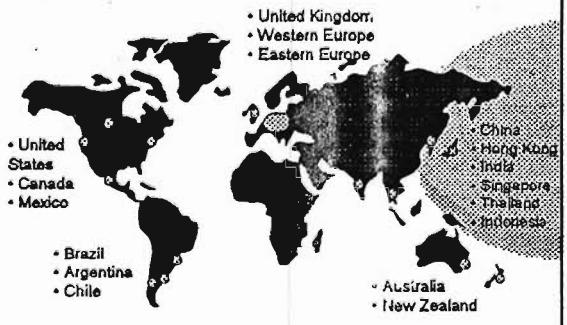
WTO developments & the beef industry

Fiona Boal
Associate Director, Food & Agribusiness Research
Rabobank International

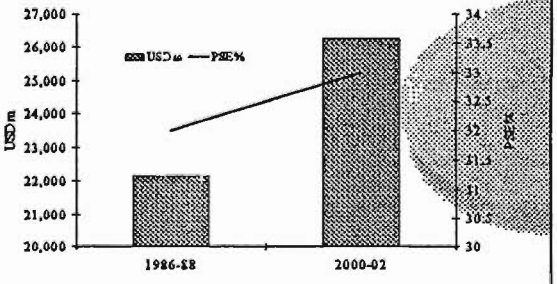
Outline

- Rabobank
- Current support levels
- Doha - July 2004 deadline
- Where do the key players stand?
- Stimulating change
- Sticking points

Rabobank's international network

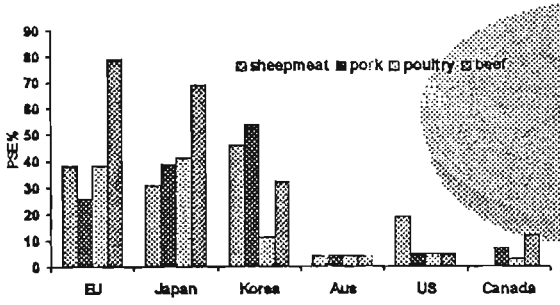


Total support to beef producers has risen not fallen

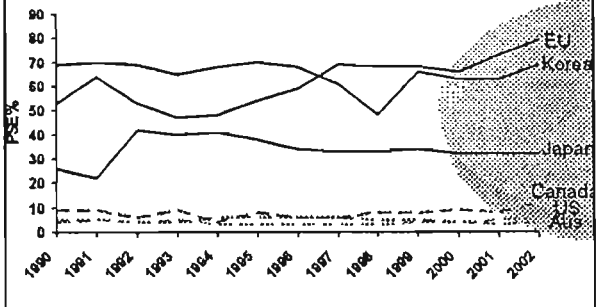


Source: OECD, 2004

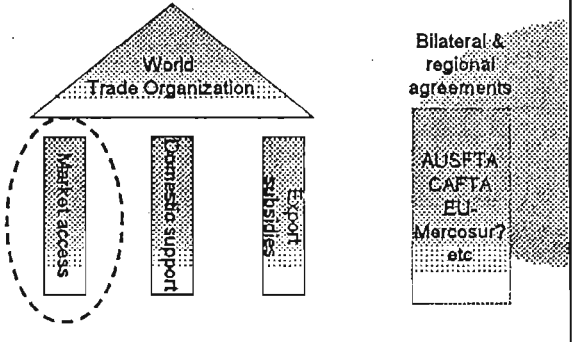
Beef is still more protected than other meats



EU, Korea & Japan continue to offer the highest levels of support



4 pillars of trade reform?

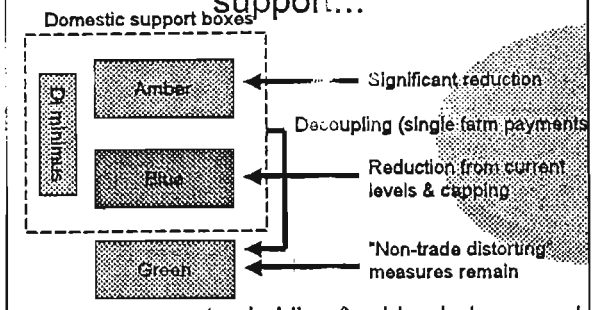


The best thing about Doha is that it's still alive

- July 2004 deadline for modalities (without numbers)
- Ag Committee has 2 meetings before July
- Encouraging noises
  - Agreement on export subsidies (just need to set a date)

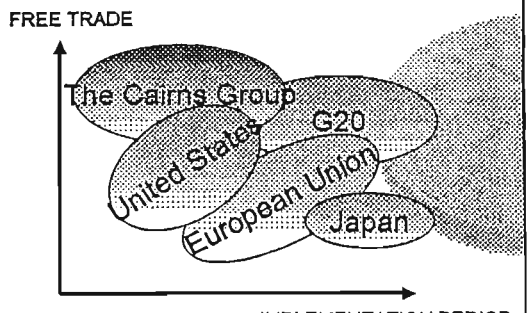
... but still can't agree on access (Uruguay v Swiss v "Blended" approach)

EU – reduce domestic support...

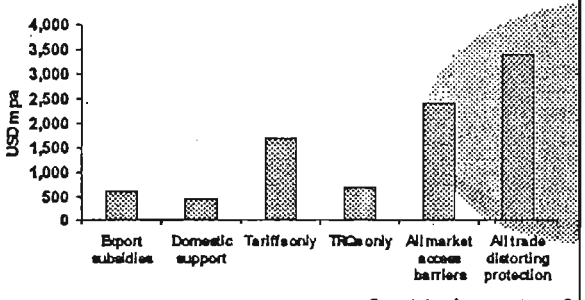


... remove export subsidies & a blended approach to market access

Ranking the main players



Annual gains to beef producers in major beef exporting countries



Cost to importers?

Encouraging change

- Consumer & taxpayer awareness
- Commercialisation of agriculture
- Innovation & product differentiation
- Internationalisation of retailers & processors
- Non ag issues (eg Singapore issues)
- Leadership (EU, US, Japan, Cairns, China, G20)

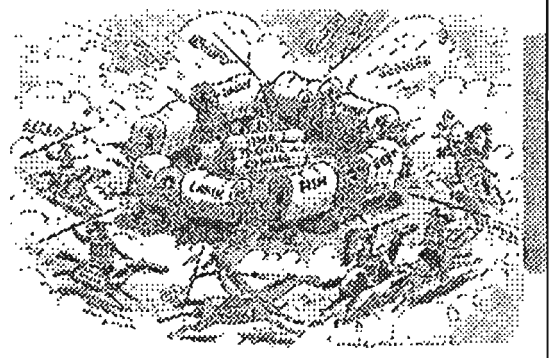
Sticking points

- Technical barriers (eg SPS, labelling)
- Food safety
- Bilateral & regional agreements
- Effectiveness of the disputes panel
- Singapore issues
- EU enlargement
- US presidential elections
- New European commissioner

POLITICS

www.rabobank.com.au

The battle continues



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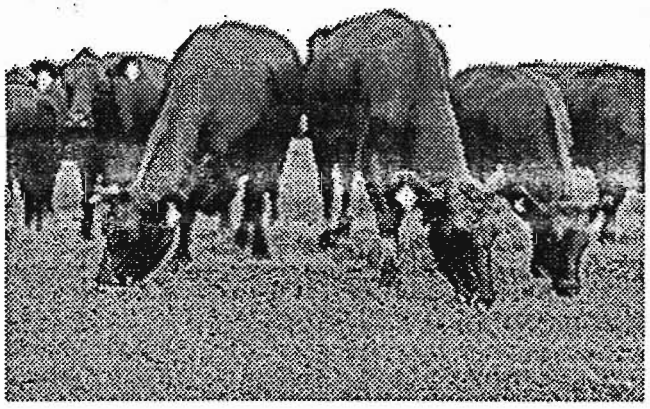
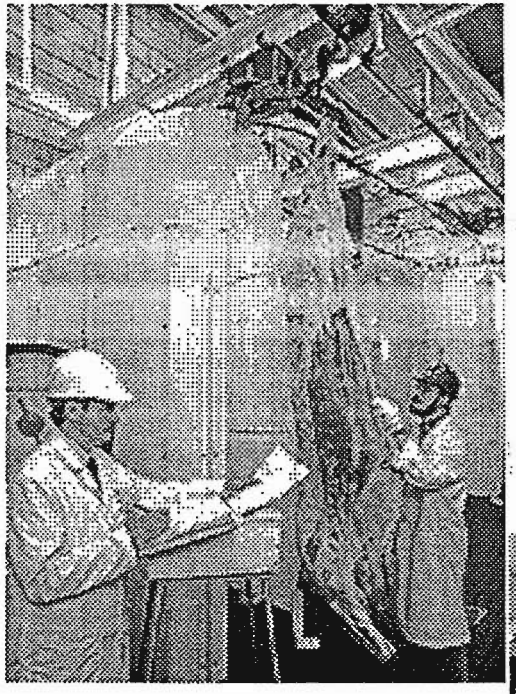
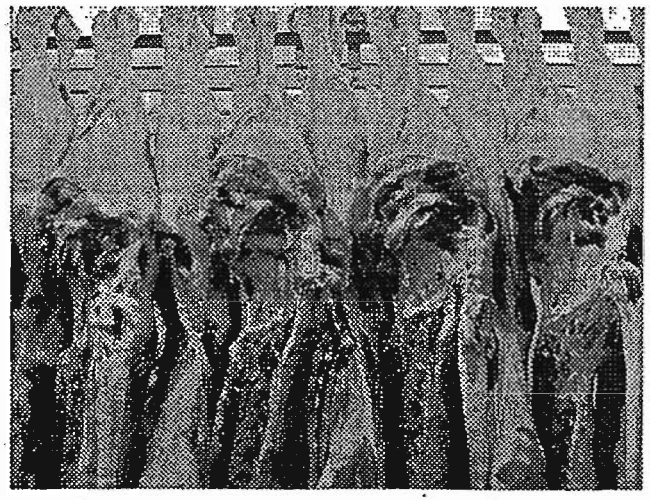
Let's MEAT the Market

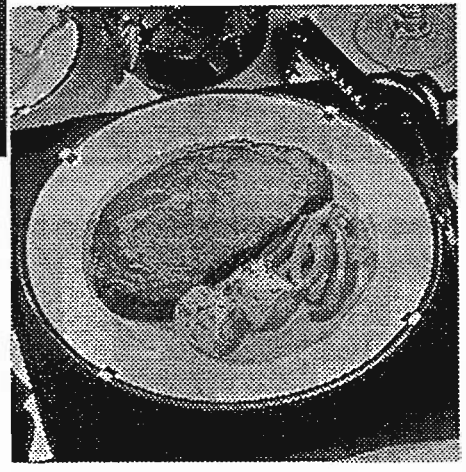




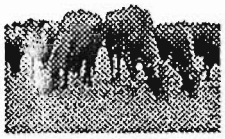
FAO,
Commodity
and Trade
Division

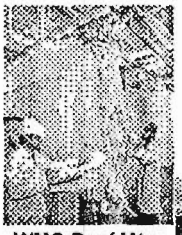


WMC-Beef Mtg.
Winnipeg,
Canada
14 June, 2004

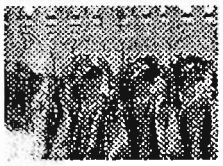


Let's MEAT the Market





FAO, Commodity and Trade Division



WMC-Beef Mtg.
Winnipeg,
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14 June, 2004

Issues of Concern to Market Participants

Disease Outbreaks

Market Access

Protectionism

Policy Developments

Food Safety

Input Costs

Structural Change and Competitiveness

Liberalization

Exchange Rate Movements

Technical and Sanitary Standards

Long Term Market Prospects

An Overview of the Presentation

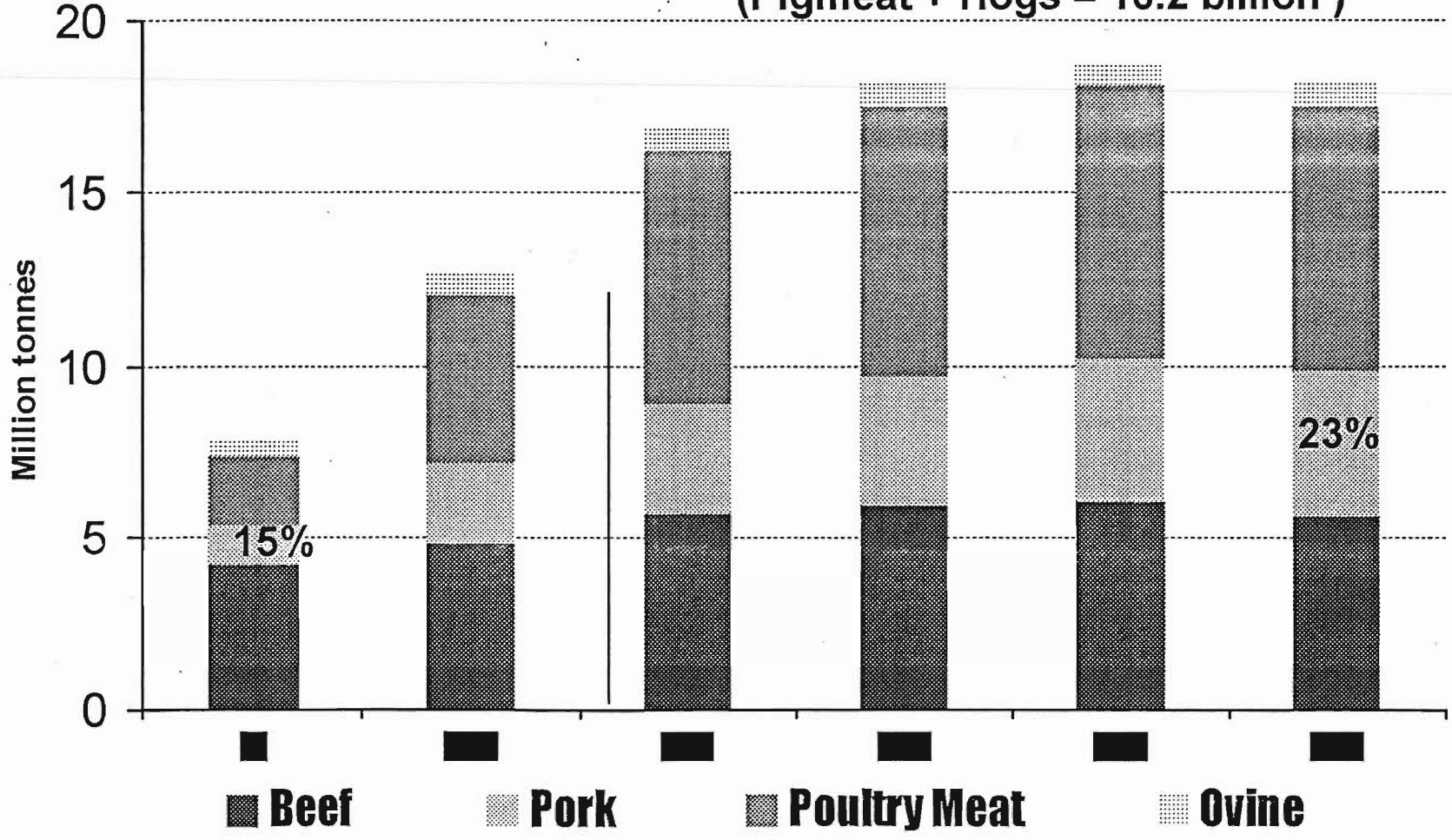
- Trends in the global livestock sector
- Outlook for 2004
- Trade and Animal Disease
- The Challenges for the Livestock Sector

World Meat Production,

a historical perspective, 1990-2004

Strong consumption gains prompts trade gains....US$54 billion 1/

(Pigmeat + Hogs = 16.2 billion)

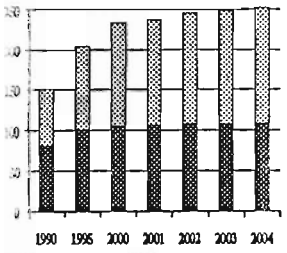


1/ including live animals and EU intra-trade

World Meat Production,

a historical perspective, 1990-2004

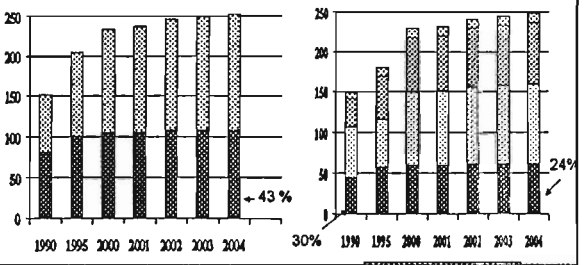
Growth in Developing Countries



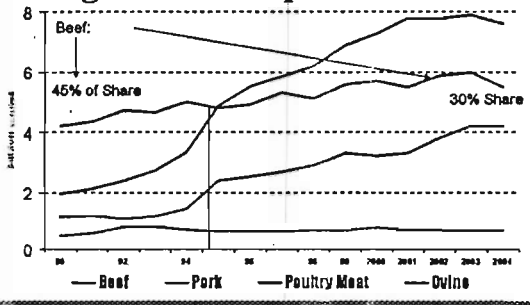
World Meat Production,

a historical perspective, 1990-2004

Growth in Developing Countries *....Driven by Gains in Poultry/Pork Sectors*



Strong consumption gains prompts trade gains.... composition shifts



Beef Markets going into 2004

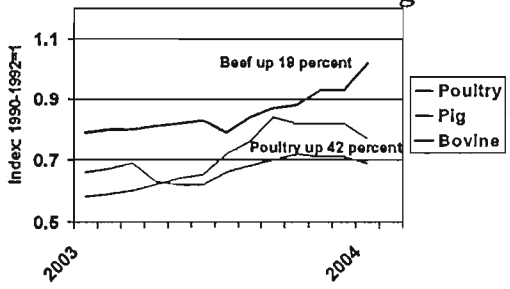
- Originally output up in response to rising prices in 2003,
- with trade and consumption forecast up as stronger economic growth strengthening demand
- BUT....BSE in Canada/US limit exports, AI throws markets into turmoil
- Feed prices rising rapidly

Results in:

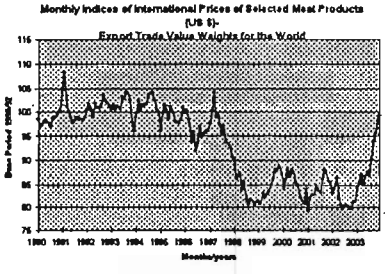
Outlook for 2004

- Beef production up only marginally
- A drop in per capita consumption
- Reduced exportable supplies
- Rapidly rising international beef prices
- Significantly lower export prospects- down 8 percent

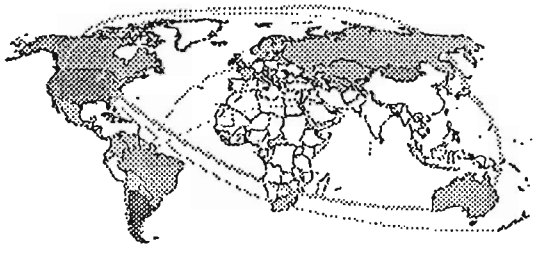
Reduced Meat Supplies Push International Prices Higher



Meat Prices Extremely Volatile

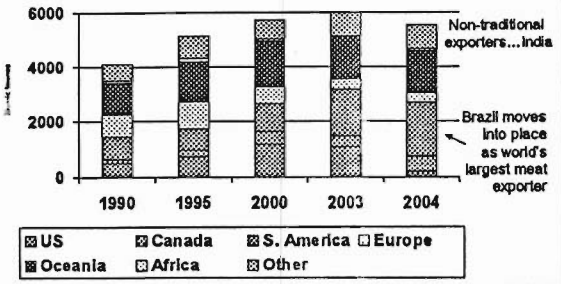


The World Beef Trade

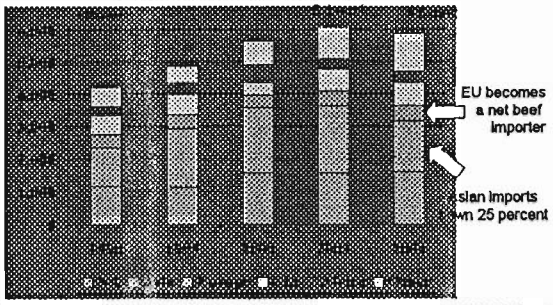


Source: Rabobank International

Beef Exports to Drop 8 percent

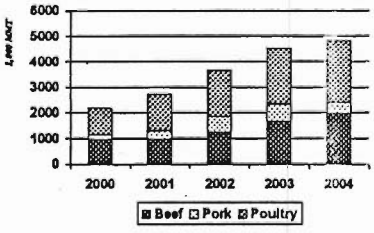


Due to dramatic decline in Asian imports.....



Animal disease/exchange rates==> increased competition among exporters

South America Meat Exports



Share of World Trade:

Poultry: 14==>32%
Pigmeat: 5==>10%
Beef: 17==>35%

Total Meat: 13==>27%

EU MARKET SHARE: 12%
US: 19%

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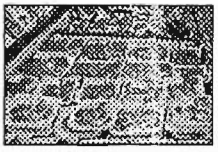


Liberalization

Exchange Rate Movements

Technical and Sanitary Standards

Long Term Market Prospects

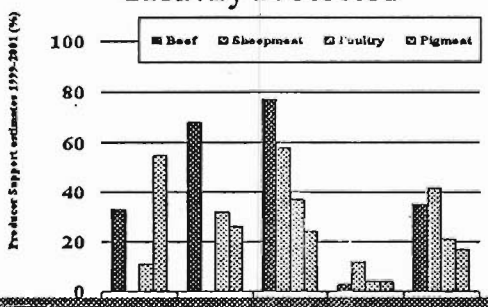
Policy Developments Affecting Markets

- EU Accession: more of an impact on hog/poultry sectors than beef
- EU limited use of export subsidies
- Russian continued use of TRQ to restrict imports
- Continued high support for meat products
- Changing standards at the OIE.....implications for trade?

Protectionism: Some Facts of Interest—in the OECD ....

- Total Value of Production (at farm gate)=637 billion
- Total Support Estimates: 312 billion
- Estimated Support to Livestock Sector (excl. wool): **104 billion (16%)**
  - Beef/Veal: 34 billion (32%)
  - Sheepmeat: 5 billion (.5%)
  - Pigmeat: 11 billion (10 %)
  - Poultry: 7 billion (7%)
  - Milk: 47 billion (46%)

Livestock Sectors: Heavily Protected



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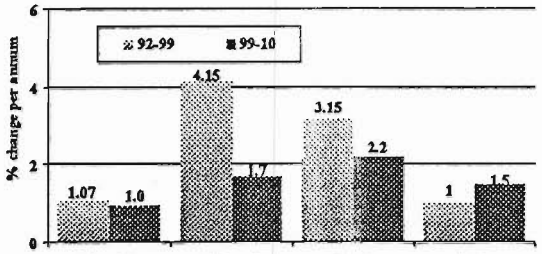
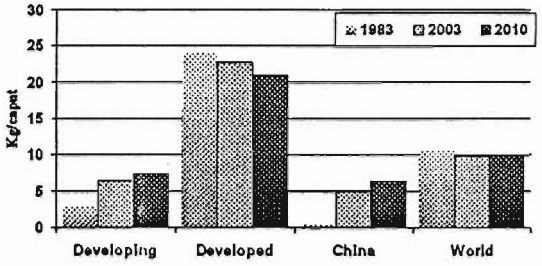
Medium Term Outlook: Meat Demand Outpaces All Others

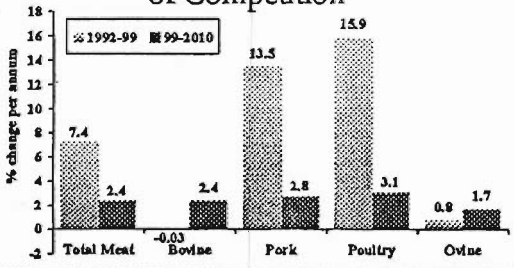


Who will be consuming beef?

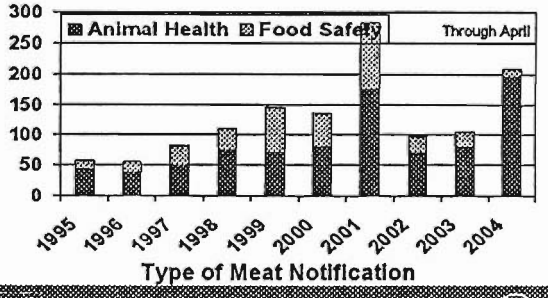
(Kg/Capita)



Trade Growth Slows for all Meats: Prospects for Beef Stronger but Lots of Competition



Proliferation of SPS notifications. Meat Notifications since 1995....

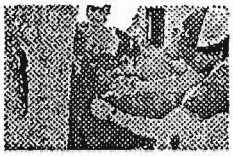


Meat Sector: Challenges

- Animal diseases and food safety concerns
- SPS issues and barriers
- Health issue awareness (hormones, GMO's, Halal)
- Product quality and safety are passwords to success
- Growing number of exporters
- Competition globally from pork and poultry
- Traceability and labelling
- Social concerns: Environmental and animal welfare
- Exchange rates

Thank You

Subscribe to the FAO Electronic Discussion Group on Meat Trade:



Contact:
Nancy Morgan
FAO, Meat Trade Specialist
Nancy.Morgan@fao.org
Phone: 39-06-570-54528
Fax: 39-06-570-54495
FAO web site: www.fao.org

IMS

Beef Committee Meeting

Jean-Luc Mériaux

Winnipeg, 14 June 2004

IMS

Beef Committee Meeting

Jean-Luc Mériaux

Winnipeg, 14 June 2004

EU15 Beef Production

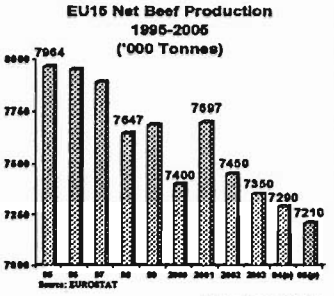
In 2004:

Production slightly lower (-0.8%)

France ⇩

Germany, Italy and Spain ⇧

In 2005: ?



Winnipeg, 2004

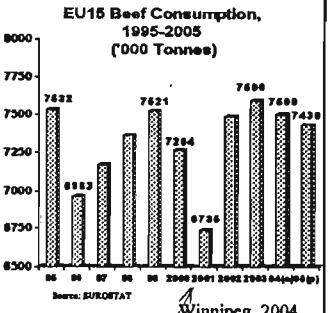
EU15 Beef Consumption

In 2003:

- ✓ good recovery
- ✓ Highest level since 1995

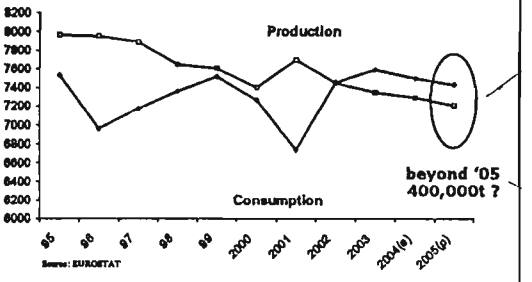
In 2004, a fall is expected:

- ✓ Weakness of the economy
- ✓ Decrease of production
- ✓ Increase in prices



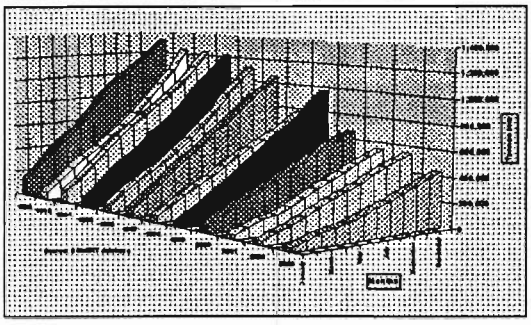
Winnipeg, 2004

Growing Deficit in EU15 Beef Production



Winnipeg, 2004

Result is falling EU15 Exports ... (1)



Winnipeg, 2004

Result is falling EU15 Exports ... (2)

In 2003: fall by 20 %

In 2004: fall by 4 %

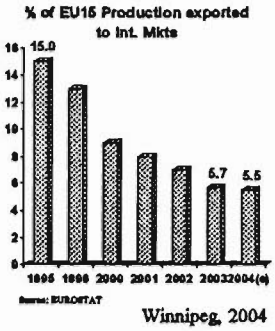
Livestock steady

Beef exports affected by:

✓ South American competition

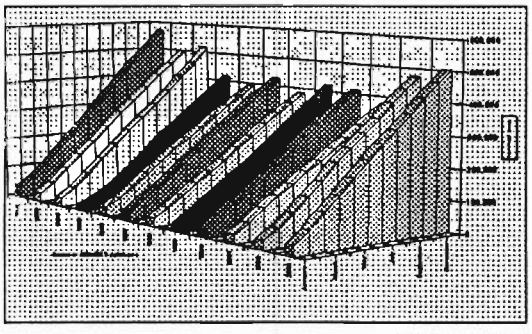
✓ Lower EU availability

✓ Stronger Euro



Winnipeg, 2004

... and rising EU15 Imports (1)



Winnipeg, 2004

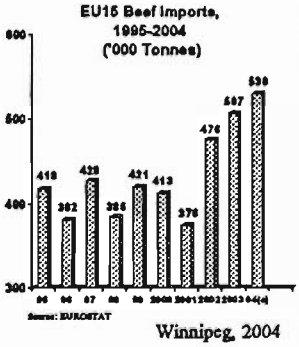
... and rising EU15 Imports (2)

Up 20% since 1999 to 507,000 t in 2003:

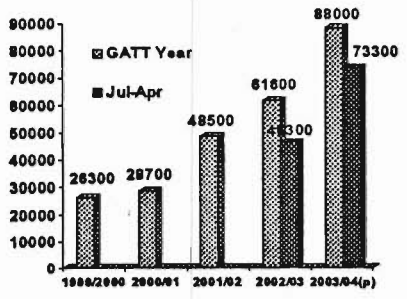
livestock up 18% beef up 5,5%

And up 4,5% in 2003/2004

Strong rise in volumes paying full duties

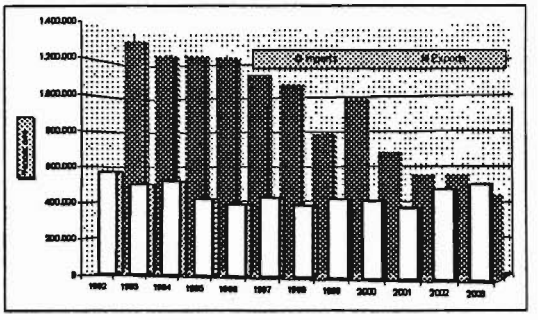


Winnipeg, 2004



Winnipeg, 2004

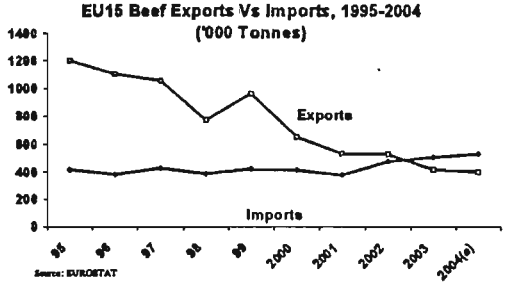
EU15 now a significant net importer (1)



Source: EU COMMISSION

Winnipeg, 2004

EU15 now a significant net importer (2)



Winnipeg, 2004

Perspectives & Challenges

- EU ENLARGEMENT: 1st OF MAY 2004
- IMPLEMENTATION OF THE CAP REFORM, FROM 2005 ONWARDS
- CHANGE IN THE OVER THIRTY MONTHS SCHEME IN THE UK (2005?)
- NEGOTIATIONS ON THE MERCOSUR AGREEMENT (2006?)
- NEGOTIATIONS ON THE DOHA TRADE ROUND (?)

Winnipeg, 2004

U.E.C.B.V.

Winnipeg, 2004

North American Beef Market Outlook

Barry L. Carpenter
Deputy Administrator
Livestock & Seed Program
Agricultural Marketing Service
United States Department of Agriculture

North American Beef Market Outlook

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Deputy Administrator
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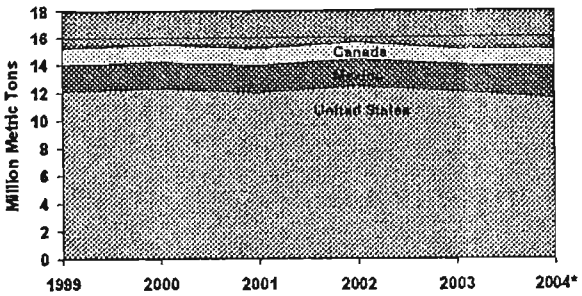
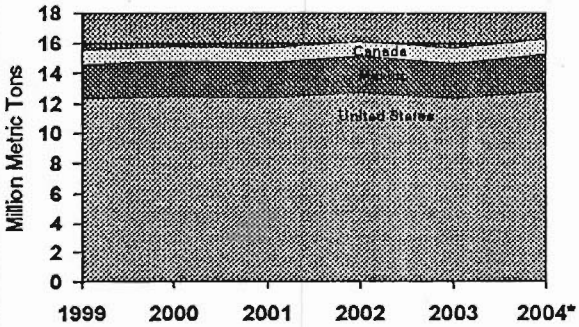
Agricultural Marketing Service
United States Department of Agriculture

North American Beef Production Restrained...



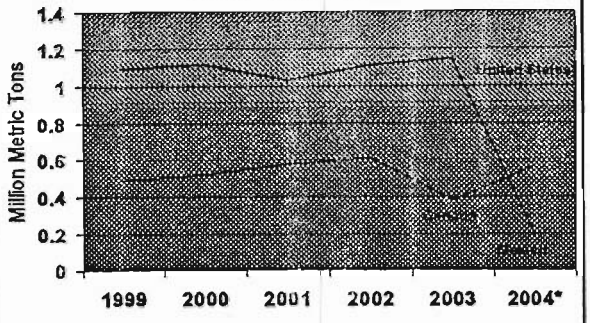
...While North American Beef Consumption Resumes Growth



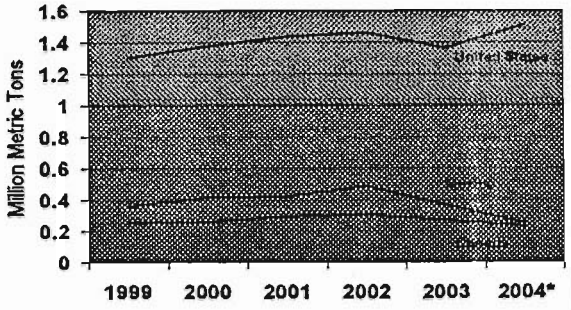
Watershed Events of 2003 Continue to Shape North American Beef Markets

- *May 20, 2003* – Discovery of Bovine Spongiform Encephalopathy (BSE) in Alberta, Canada
- *December 23, 2003* – Discovery of BSE in Washington, U.S.A.

BSE Curbs Canadian, U.S. Beef Exports



BSE Slows Canadian, Mexican Beef Imports; U.S. Imports Recover

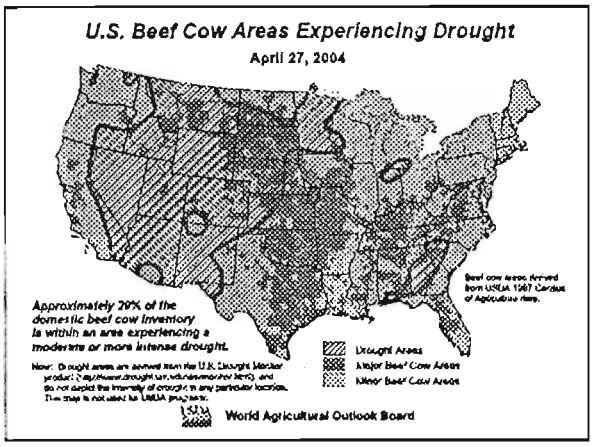


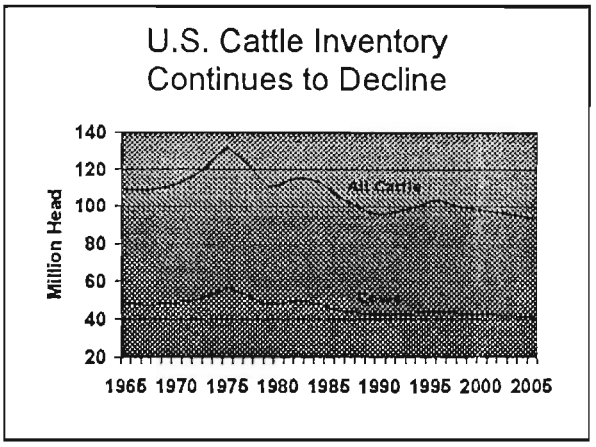
Policy Environment

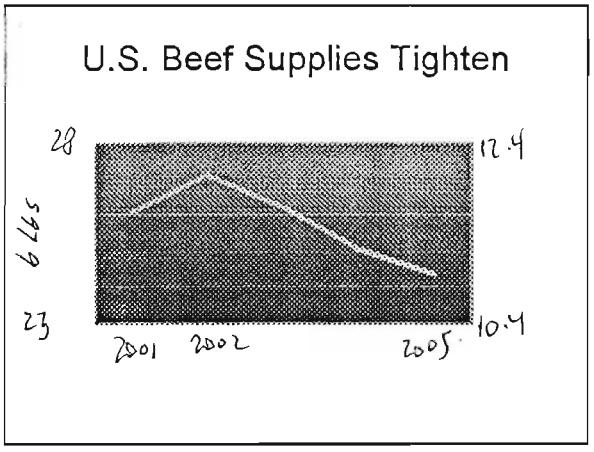
- Industry and policy adjusting to BSE
  - Additional steps to ensure food safety
  - Re-opening of international markets for Canada & U.S.
  - Accelerated development of National Animal Identification System in U.S.
- U.S. mandatory country-of-origin labeling
  - Begins September 30, 2006 for beef
  - Continues to be debated in Congress

U.S. Market Highlights

- Domestic supplies remain tight
- Beef cow herd rebuilding prolonged by persistent drought
- Feed grain prices high, but expected to moderate with good 2004/5 crop
- Domestic demand remains strong
- Prices remain strong
- Forecasts contingent on trade developments



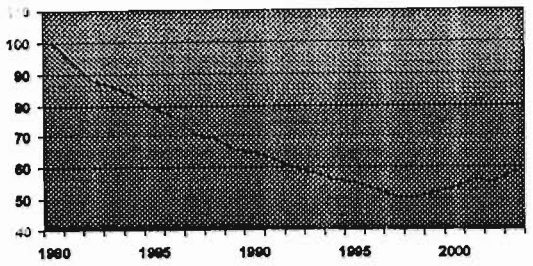




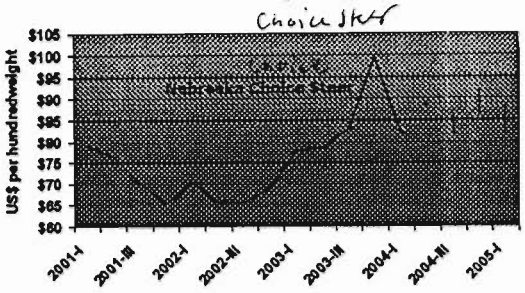
U.S. Beef Demand Remains Strong

- U.S. demand at a 10-year high
- Demand up 15% in the past 5 years
- 1,600 new products developed in the past 5 years
- Consumer confidence was at 89% on December 30, 2003
- High-protein, low-carbohydrate diets appear to be an important factor

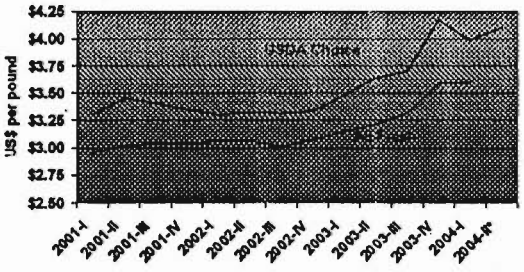
U.S. Beef Demand Index Continues Recovery



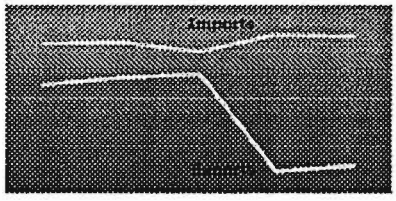
U.S. Cattle Prices Remain Historically High



U.S. Retail Beef Prices Remain High



U.S. Beef Trade Altered by BSE



U.S. Beef Exports

- Bovine Export Verification program provides assurance to importers
- Trade restrictions partially lifted with Canada and Mexico
- Negotiations with other countries continue

U.S. Beef Imports

- U.S. imports lean beef to blend with domestic trimmings for ground beef
- Australia, New Zealand and Canada continue as major sources

For More Information...

Barry.Carpenter@usda.gov

USDA Agricultural Marketing Service on the Web:

http://www.ams.usda.gov

Asia Pacific Beef Market Update

JUNE 2004

Joel Haggard
Vice President, Asia Pacific Region

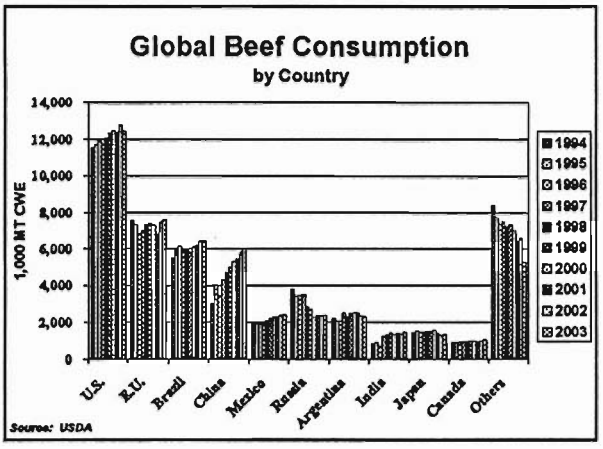
U.S. Meat Export Federation

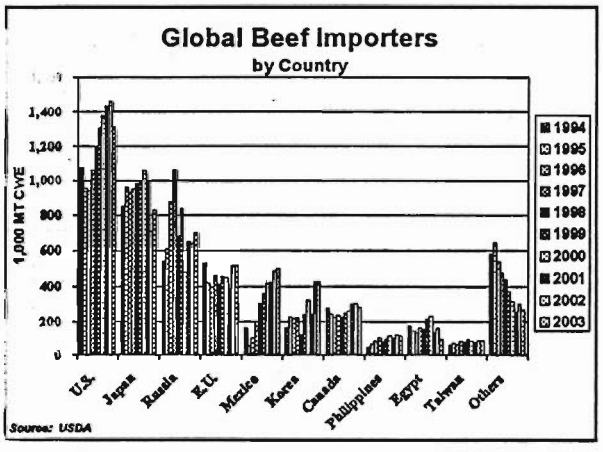
Asia Pacific Beef Market Update

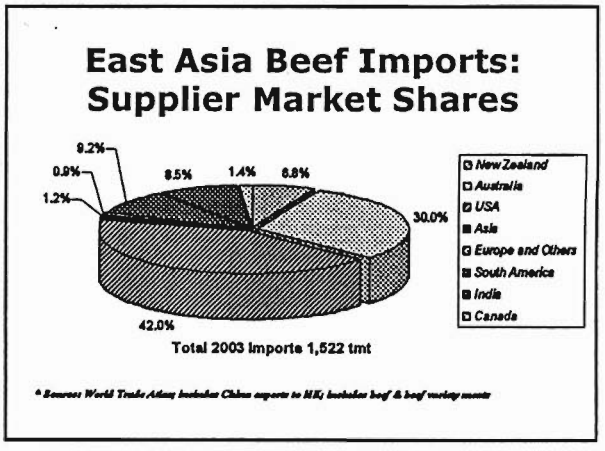
JUNE 2004

Joel Haggard
Vice President, Asia Pacific Region

U.S. Meat Export Federation







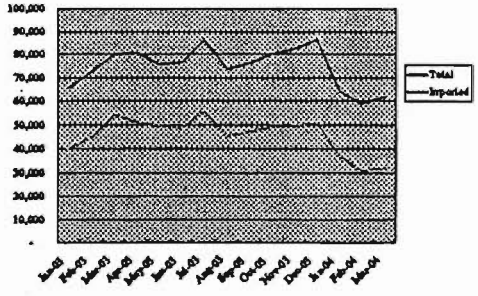
Intra-Asia Live Cattle Trade

Australia	→	Indonesia, Pl, Malaysia	(584,000 hd.) ↓
Myanmar	→	Thailand	(72,176 hd.) ↓
China	→	Hong Kong	(50,635 hd.) ↓
Thailand	→	Malaysia	(>100,000 hd.??) ↑

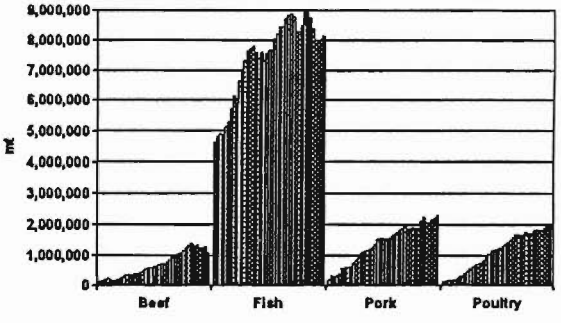
Current Access Status of US Beef in East Asia

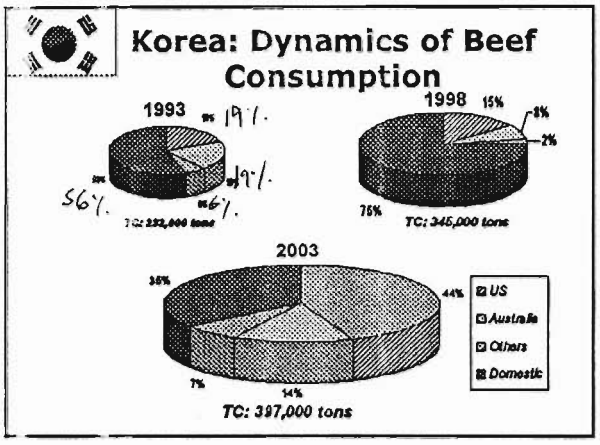
~~CLOSED~~	OPEN
Japan Korea Taiwan China Hong Kong Singapore Thailand Malaysia Vietnam	Philippines Indonesia
↓	↓
62% of total US Beef Export value (2003)	*1 %> total US beef export value*

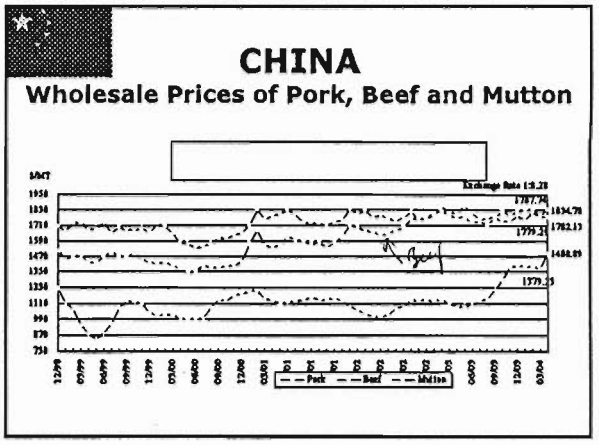
JAPAN: Post BSE Consumption Monthly Beef Marketings (metric tons)

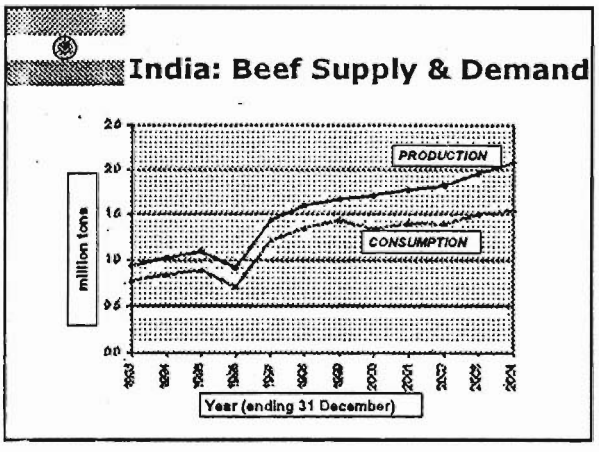


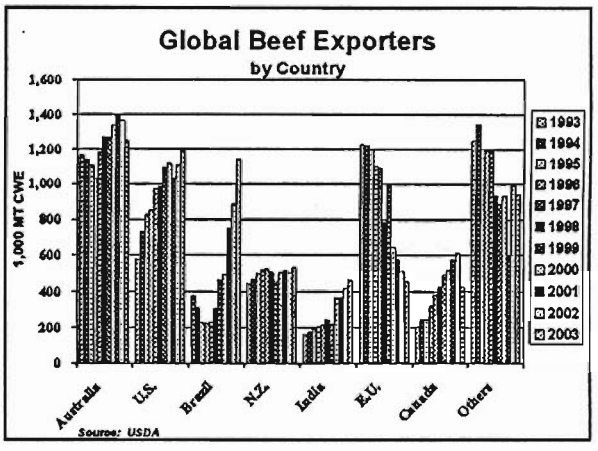
Japan Meat Consumption 1961-2001




Korea: Dynamics of Beef Consumption
1993
1998
15%
8%
2%
76%
TC: 345,000 tons
2003
35%
44%
7%
14%
US
Australia
Others
Domestic
TC: 397,000 tons


CHINA
Wholesale Prices of Pork, Beef and Mutton


India: Beef Supply & Demand
PRODUCTION
CONSUMPTION
million tons
Year (ending 31 December)


Global Beef Exporters
by Country
1,000 MT CWE
1,600
1,400
1,200
1,000
800
600
400
200
0
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
Australia
U.S.
Brazil
N.Z.
India
E.U.
Canada
Others
Source: USDA

Conclusions & Outlook

- *Lower imports and consumption based on U.S. absence and lack of alternative supplies.*
- *Resumption of U.S. access in 4th quarter 2004; new U.S. trade by early 1st quarter, 2005.*
- *Small but growing imports into China based on increased consumption; lingering access issues.*
- *Long term outlook: North American BSE issue fades and regional consumption expands.*

Short term market prospects

An Oceania perspective

International Meat Secretariat
Beef Committee Meeting
Winnipeg, Canada
14 June 2004

Mr Mark Spurr

Managing Director

MLA

Short term market prospects

An Oceania perspective

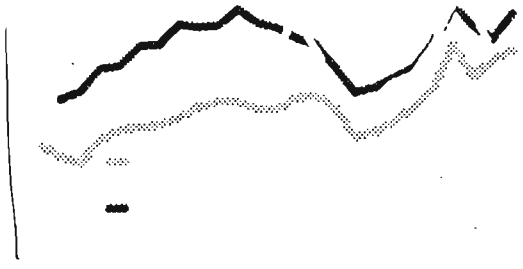
International Meat Secretariat
Beef Committee Meeting
Winnipeg, Canada
14 June 2004

Mr Mark Spurr
Managing Director
MLA

Short term Australian and global outlook

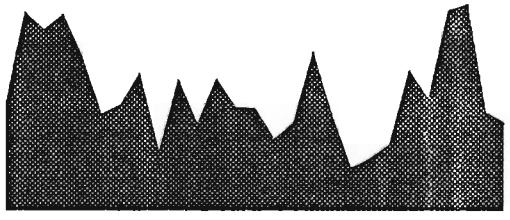
- High cattle and beef prices supported by resurgence in beef demand
- ... but trade suspensions on US beef to cause major short term trade volatility
- Australia's severe drought to impair supplies
- Need for global cooperation to expand beef consumers and trade

Australian and Pacific Basin beef trade prices high



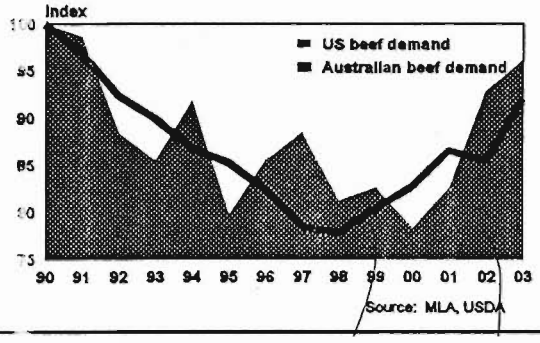
Source: ABS, MLA

Australian beef farm incomes high until drought



Source: ABARE

Extraordinary: Australians and Americans come back to beef



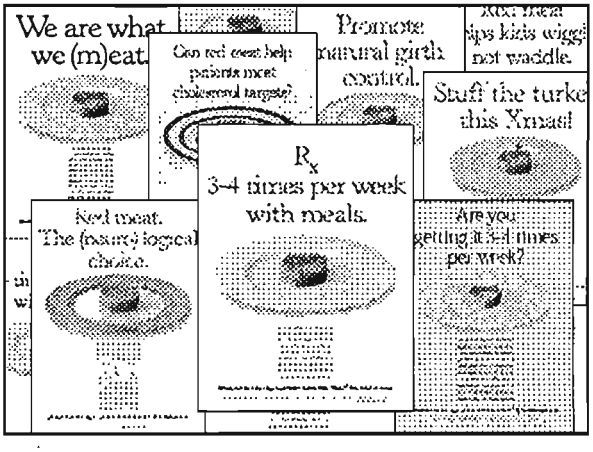
Scientific research has turned the tables

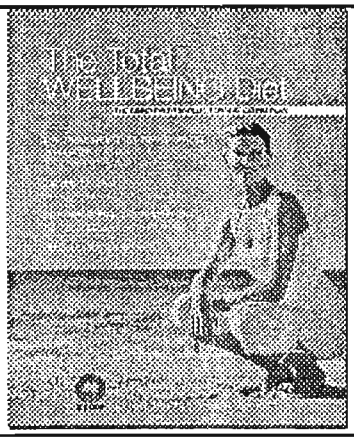
Endorsed or incorporated by

- C'wealth Dept of Health
- Heart Foundation
- Dietitians Association
- Australian Cancer Society
- National Health & Medical Research Council

www.meat4health.com.au

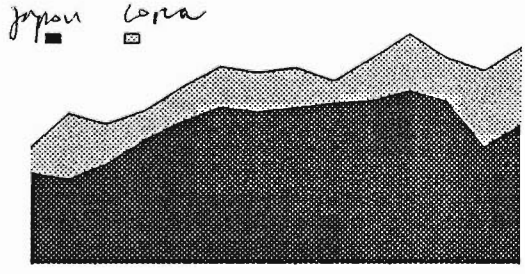
RED MEAT.
Feel good.





Cutting edge science grading scheme lifts beef quality & consistency

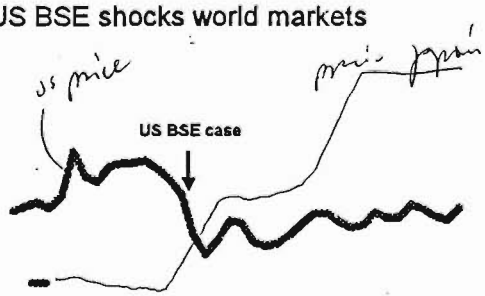
Rising North Asian beef import demand



Source: Japan Ministry of Finance, KOTIS

US BSE:
The biggest shock to ever hit world beef markets

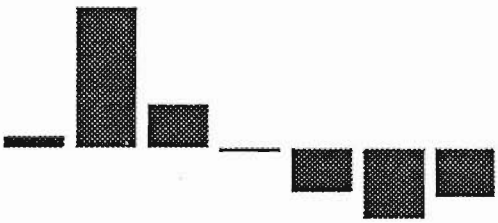
US BSE shocks world markets



Source: Chikusan Nippo, Steiner

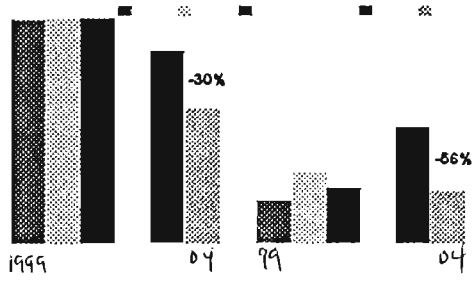
US absence shifts trade flows

Change in Australian beef exports



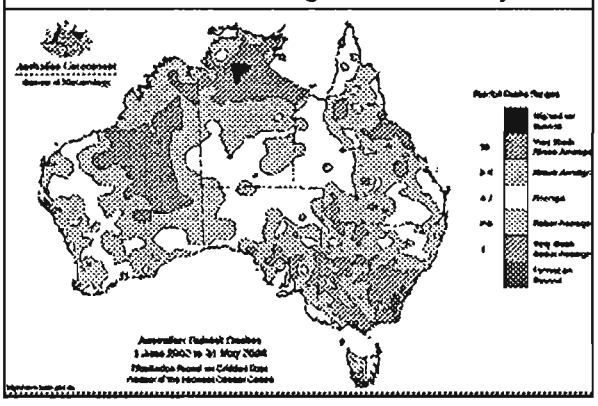
Source: DAFF

But ultimate impact is a loss of beef customers:
Japan and Korea beef imports fall sharply

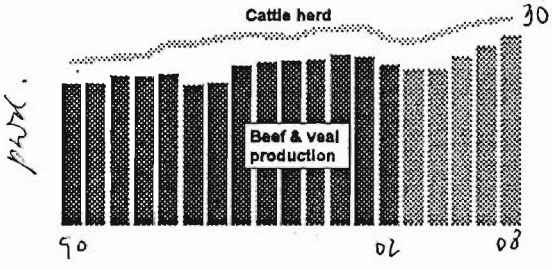


Source: Japan Ministry of Finance, KOTIS

Australia's severe drought enters third year



Drought impacts on Australian supply



Source: ABS, MLA forecasts

Need for global cooperation to expand beef consumers and trade

- Border controls to be based on science
- Successful outcome of WTO Round vital
- Japan snapback needs to be suspended for US re-entry
- Global nutritional health promotions

The Global Meat Economy: Outlook and Issues for the Beef and Pork Industries

World Meat Congress, Winnipeg, Canada, 14 June, 2004

Nancy Morgan, ESCB/FAO

The global livestock economy over the past decade has been characterized by one of the fastest consumption and trade growth of all major agricultural commodities. Growing numbers of quality-conscious urban consumers in developing countries have spurred global demand for meat and dairy products which, increasingly, has shifted from bulk meat trade to more specific value-added products and specialised cuts. Much of this demand has been met by increased output in developing countries themselves, where relatively low feed prices, technology transfers, and increasing vertical integration and concentration have combined to keep prices relatively low for consumers.

Among the major factors that have influenced the global livestock sector over the past few decades, the following were of particular relevance. Many of these factors are expected to continue to shape and influence markets over the next decade.

- Structural changes in the livestock industries, including improved genetics, animal housing, and enhanced management: In part these changes are a result of growing cross-border technology and investment flows into meat industries around the globe, particularly in strong growth markets or low-cost production regions. This trend is likely to continue in the future, leading to changing cost structures in industries in developing countries.
- Changes in policy environment: Implementation of WTO provisions for meat products have led to a reduction in the use of export subsidies and expanding access to various markets. These developments have stimulated trade flows and led to increasing participation of developing countries in international markets as exporters. Continued progress toward freer trade on international markets is projected over the next decade, assuming continuation of existing or announced national agricultural policies affecting these sectors.
- Increased instability in global meat markets as a result of animal disease outbreaks and escalating human health concerns related to BSE and antibiotics in feed. World-wide import bans on meat from infected areas and heightened border inspections and testing have had distorting effects on the patterns of livestock and meat trade, inducing trade diversion and shifting relative prices among meats. Human and animal health issues, as well as those related to product quality, are expected to increase in complexity over the next decade and influence consumption patterns.

This presentation will review the general trends underpinning growth in the global livestock sector, identify some of the factors affecting the global meat outlook for 2004, take a look at the issue of trade and animal diseases, and finally, summarize some of the challenges which face livestock producers, traders, researchers, consumers, and certainly policy makers.

The Livestock Revolution

The rapid growth in livestock production and trade over the past decade has been characterised as a revolution. Certainly growing incomes, urbanisation and changing life styles and consumption choices have prompted strong demand for meat products, mainly in developing countries. In fact, nearly three-quarters of the growth in global meat production and consumption over the past decade has been housed in developing countries. Consumer preferences and the changing cost structures of livestock production and processing industries have led to strong production gains for poultry and pork products, both of which are lower-priced than beef cuts. These changes in industry structure, lower prices and a evolving international policy environment which, through the World Trade Organisation (WTO), has increased market acccess, has led to a trade gains of over 7 percent annually in meat trade over the 1990s. Both health and economic factors, such as lower relative prices, have benefitted poultry share of global meat trade, which rose from 22 percent in 1990 to over 41 percent by 2003.

The total value of livestock and meat trade in 2002 is estimated at US$54 billion, or 12 percent of total agricultural trade. The Western Hemishere, exporting 10.4 million tonnes of meat products in 2002, accounted for over 50 percent of world meat trade. The total agregate value of meat and live animals from the region is estimated at US$ 13.5 billion and and US$ 2.6 billion respectively.

The list of major issues on concern to market participants in the livestock sector continues to grow as markets become more complex and integrated. Disease outbreak and food safety concerns predominant in 2004 but policy developments influence markets as do structural change/competitivenss in industries due to new technologies, improved management, environment regulations, animal welfare concerns. All of these, including policy developments/liberalisation prospects as a result of WTO and regional trade agreements, will influence long term market propsects for livestock market participants.

The Meat Outlook for 2004

Animal disease outbreak have been disrupting international markets periodically over the past three years. The impact of alternating disease outbreaks and recovery results in rapid increases in exportable meat supplies and considerably increase price volatility at international levels. In 2004, animal disease outbreaks are substantially affecting the outlook for the global meat market with approximately one-third of global meat exports, or 6 million tonnes, being presently affected by outbreaks of avian flu or by identified cases of BSE. While bans on imports may be temporary, global meat trade, originally forecast to rise in 2004, is likely to slide four percent. Import bans on poultry and beef exports from disease-affected markets are leading to higher international meat prices for product originated from disease-free zones as well as putting upward pressure on other animal protein product prices. Considerably trade diversion is expected to occur, with importers turning to disease-free meat suppliers, particularly those in Latin America and Oceania, to supply their markets.

The Beef Sector: Limited supplies and high prices depress bovine meat trade prospects

Global bovine meat production is forecast to reach 61.9 million tonnes in 2004, up marginally from the previous year. Low cattle inventories in Oceania, BSE concerns in North America, and reduced sector support in the EU are constraining slaughtering, leading to an expected 2 percent drop in bovine meat production in developed countries. By contrast, output in developing regions is anticipated to rise by 3 percent, with continued strong gains foreseen in China, India, the Republic of Korea, and Mexico. Per capita beef consumption in both developed and developing regions is set to drop by 1 percent to 22.7 and 6.4 kg/caput, respectively.

Higher prices and import bans on product originating from North America are expected to drop global beef trade by 8 percent to 5.6 million tons. North American exports, totalling 1.5 million tonnes in 2003 and valued at US$ 4 billion, are expected to plummet by 50 percent. While exports from Canada will recover as the US lifts import restrictions on Canadian product, US exports are estimated to decline 82 percent. Meanwhile, as demand for beef from disease-free suppliers surges, shipments from South America might expand by 17 percent, with Brazil's share of global beef shipments rising to 22 percent. However, the gap left by beef trade restrictions on North American product is unlikely to be filled by product from South American or Oceania. Consequently, purchases by the major importing countries of Japan, Mexico, and the Republic of Korea are projected to fall by 35 percent, 30 percent, and 40 percent respectively. While Indian beef exports are likely to rise 14 percent, a marginal decline in Australian shipments is anticipated, on account of limited inventories and an appreciating currency. Meanwhile, the EU is set to register their second year as a net beef importer as exports decline for the fifth consecutive year.

The Pigmeat Sector: Despite limited pigmeat output gains and higher prices, trade expected to expand

Low returns to hog producers in the context of higher feed prices in 2004 are expected to limit pigmeat output to 97.7 million tones, up less than 2 percent from 2003. In many countries, production costs are exceeding market prices as international maize and soybean meal prices have soared 20 percent and 65 percent respectively compared with last year. Lower profitability facing many of the producers in Europe and Brazil, combined with reduced prospects for imports by Russia, are dampening major

exporters' production outlook. By contrast, in the United States, output is expected to rise by 3 percent supported by strong consumer demand. US producer and retail pigmeat prices remain unusually high given the glut of meat available in the context of export restrictions facing the beef and poultry sector. Overall, however, developed countries are set to experience a slight decline in pigmeat production this year. Meanwhile in Asia, which accounts for 56 percent of global output, and where the AI has bolstered pigmeat prices, output is set to increase by 3 percent. While per capita consumption is moving up in Asia and developing countries by 2 percent in 2004 to nearly 15.0 kg/caput and 11.8 respectively, it remains significantly below the level in developed countries, where consumption is expected to drop 1 percent to 29.2 kg/caput.

Trade prospects for pigmeat in 2004 are stronger than for poultry and bovine meats, with exports estimated at 4.3 million tonnes, or 2 percent higher than last year. Much of the increase is expected to be sourced in North America, which typically exports high valued cuts to lucrative Asian markets. Shipments by other traditional exporters are expected to hampered by trade restrictions in Russia, which was the world's largest meat importer until its imposition of tariff rate quotas in 2003. Limited access to the Russian market, where imports are forecast down 12 percent, is set to reduce Brazilian shipments by 40 percent while the elimination of EU export subsidies early this year is forecast to reduce EC exports by 4 percent. By contrast, shipments from Mexico and Chile are anticipated to rise as a result of a trade agreement with Japan where strong consumer demand is bringing about an estimated 12 percent rise in imports, a new record. This is despite expectations that the strong import pace might retrigger the pigmeat safeguard, leading to higher tariffs in August.

Meat Price Implications: International meat prices are surging in 2004, as animal disease outbreaks in major meat exporting countries and bans on imports from disease afflicted areas are reducing exportable supplies. Expectations of higher prices for meat from disease-free zones in 2004 come on the heels of rising prices during the previous year. In 2003, the FAO trade-weighted meat price index rose 16 percent, as limited meat production gains lifted price by 42 percent for poultry, 19 percent for beef and 8 percent for pigmeat.

Policy Issues of Concern in 2004:

The accession of 10 new countries into the EU raises a element of uncertainty into the outlook. It is generally felt, however, that accession will only have a limited impact on global meat trade flows. Certainly, accession offers an opportunity to all countries involved to increase trade. The immediate impact will be likely increased product flow, both pork and high quality beef cuts, moving into the accreeding countries. Similar to the US and Canada, hogs may move from Poland and other countries into Germany, be slaughtered and exported back as products. In the long term, increased investment flows into Eastern European countries and improved hygiene standards in existing plants will generate a more equitably flow of trade.

Trade policy developments in 2004 included reduced its use of export subsidies by the EU for both pork and beef, the continuation of restrictive TRQs in Russia, and in Japan, a reduction in the beef tariffs in April and the elimination of the pork safeguard. However, the safeguard may be reimposed by August due to the strong pace of imports. Protection for livestock industries in OECD continues to be high. OECD figures indicate that support for all agricultural products in 2003 is estimated at US$312 billion, this compares to US$637 billion total value of agricultural production. Estimated support to the livestock sector (excluding wool) is 104 billion, or 16 percent of the total support. The estimates for the various meats are:

Beef/Veal: 34 billion (32 percent of total support)

Sheepmeat: 5 billion (.5 percent of total support)

Pigmeat: 11 billion (10 percent of total support)

Poultry: 7 billion (7 percent of total support).

Meat Trade and Animal Diseases

Animal disease outbreaks hold high costs for economies around the globe, result in considerable market disruptions and price volatity as countries import barriers to trade and raise concern about increased cross-boundary risks of disease transmission and effective disease control.

A recent study by FAO measured the costs of selected disease outbreaks[1]. These ranged from US$ 9.2 billion for the FMD outbreak in the UK in 2001 to US$ 6.6 billion for the FMD outbreak in Taiwan in 1997. The latter case led to significant and permanent changes in the pattern of trade, with the Republic of Korea replacing Taiwan as the major supplier of pork to Japan. The FMD outbreak in the Republic of Korea in 2000 then resulted in other suppliers filling the vacuum. Obviously FMD outbreaks were not limited to the EU in 2001; the South America countries of Argentina and Uruguay lost considerable export earnings, estimated at US$ 440 million for Argentina and US$ 178 million. These direct trade losses do not include the costs of public disease control measures, losses to producers and consumers through destabilized markets and fluctuating prices, and the general costs to the industry.

The increasing prevalence of policy measures imposed to ensure human and animal health are revealed by a proliferation since 1995 of notifications to the SPS committee at the WTO. Meat notifications have been rising quickly and constituted about 30 percent of total notifications. A preliminary assessment of notifications to the WTO in the first four months of 2004 reveal that the notifications have already surpassed 200, and accounted for more than 60 percent of total notifications. Certain, they are on track to considerably exceed the record level of 250 received in 2001. To-date, since 1995, out of the more than 4,700 notifications submitted to the SPS committee, 1,371 related to meat products.

The Challenges:

The complexity of the global trading system of meat products is expected to increase further in response to consumers' preoccupation about the ways in which meat is produced and sold. While long term prospects for meat industries are robust with meat demand expected to witness gains high than most other agricultural commodities, annual consumption gains are projected to slow to 2.2 percent annually through 2010. Similarly, growth in meat trade is expected to slow to 2.4 percent annually from the 7 percent gains witnessed over the 1990s. Trade growth for all meats is expected to range between 2.4-3.1 percent over the time period.

However, increased trade in meat product and greater intensification of production systems increase the risk of interantional spread of animal diseases, zoonose and food-borne infections. With greater scrutiny of meat production systems and the "hoof to plate" approach to food safety and quality, there is a risk of proliferation of divergent food standards, sanitary assurances and certification procedures. In addition, social concerns related to the environmental impact of intensive livestock production systems and the way of treating, raising livestock (animal welfare) will result in increasing legislation affecting the cost structure of industries.

It is increasingly clear that product quality and safety are passwords to success. In this increasingly complex marketplace, transparency, appropriate legislation, and greater collaboration between producers, consumers, policy makers, and international organisations is critical to enhancing participation in global livestock and meat markets.

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[1] See FAO website for 2002 IGG document entitled "Animal Diseases: Implications for International Meat Trade" on http://www.fao.org/Unfao/bodies/ccp/me/02/.

Presentation to

2004 World Meat Congress

Canada Beef

by

Ben Thorlakson
Chairman
Canada Beef Export Federation

Pr: :entation to

2 :04 World Meat Congress

by
Be: Thorlakson
Ch :man
Ca: da Beef Export Federation

The Devastating Impact of BSE

C :nadian industry's dependence on .rade:

- Canada positioned as 3rd largest :xporter of beef and cattle in the world
- 2002 - nearly 60% of Canada's beef roduction went to exports

May 20 – BSE
Immediate suspension of trade

Canada's dependency on trade

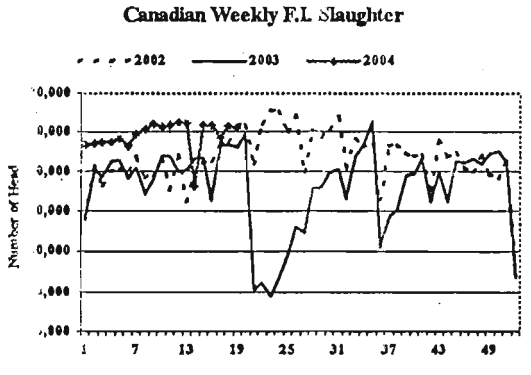
- Since mid-1980s, Canada has become increasingly dependent on slaughter capacity in US

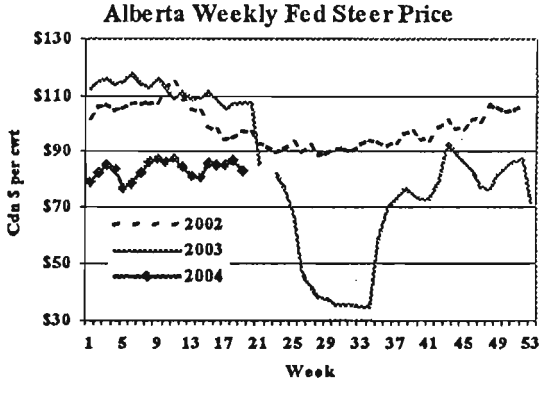
- ntil May 20, surplus production was rocessed in the US
- nnual export of approx. 1 million live attle to US
- uspension of trade caused major nbalance
- anada's cattle supply exceeded its laughter capacity

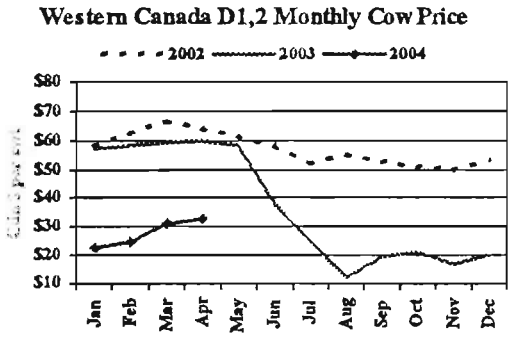
Economic Impact of BSE:

➢ Economists estimate current direct loss to Canadian cattle and beef industry is

$2.1 billion







Canada's BSE-Protection Actions

meat bone

- 1978 - Ban importation of MBM from Europe
- 1989 - Ban importation of live breeding cattle from Europe
- 1990 - Classify BSE as official "Reportable Disease", begin Passive Surveillance on all European cattle living in Canada

Canada's BSE-Protection Actions

- 1992 – Active surveillance within the known risk population of cattle
- 1993 – Diagnosis of a BSE cow originally imported from UK
- 1994 – Removal of all remaining European cattle residing in Canada - and destroying and testing of all herd mates & offspring of the index animal

Canada's BSE-Protection Actions

- 1996 - Ban feeding of chicken litter & restaurant waste to cattle
- 1997 – Implemented Mandatory Ruminant Feed Ban
- 1998 – Submit to European (GBR) Risk Assessment Process: Minimal Class 2 Risk

Canada's BSE-Protection Actions

- 2000 – Submit to Canadian & American Risk Assessments: Minimal Risk
- 2001 – Ban air-injection stunning
- 2001 – Implement National Cattle Identification/Traceback System

Canada's BSE-Protection Actions

- 2003 – Diagnosis of BSE in a Canadian-born cow (born before the ruminant feed ban)
- 2003 – Mandatory CNS testing for mechanically deboned beef
- 2003 – SRM removal policy from the human food system

Canada's BSE-Protection Actions

- 2004 – Enhanced National Cattle Identification System
- 2004 – Enhanced BSE Surveillance with OIE Guidance

Possible route by which BSE came to Canada

- 182 live cattle imported from UK between 1981 and 1989
- Prior to 1993, 68 either slaughtered or died on farm
- 10 from farms in UK that had a case of BSE
- Total level of BSE risk was very small – was halted in 1989 – and was blocked in 1997

Despite:

- Canada's Minimal Risk for BSE status
- OIE guidelines which encourage continued trade in safe products

ALL MAJOR INTERNAIONAL MARKETS FOR CANADIAN BEEF CLOSED

OIE Developments

- **establishing criteria for Risk-Assessment-based approach to replace country classification based on incidences of BSE**
- **acknowledges countries' risk mitigation measures and levels of BSE surveillance**
- **categorizes risk levels associated with trade from countries with varying levels of BSE risk**

All countries espouse the principal that trade decisions should be based on science – but reality has proven otherwise.

Canadian Consumer Confidence

- Canada is first country to see beef consumption increase following a BSE incident
- Turning point for the world

Canadian Public Response

- Rallies in support of industry were held across the country
- Beef was consumed and purchased in significant quantities
- Public began to feel angry that Canadian beef was being banned on basis of political intervention

- Consumer confidence testament to transparency and professional communication by government and industry

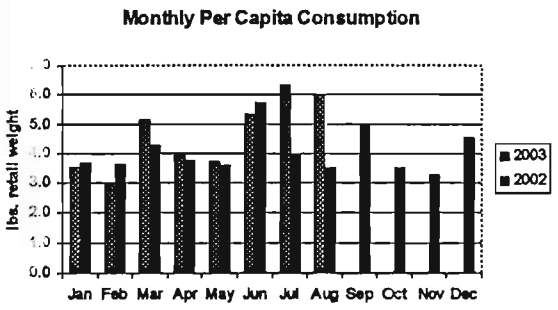
Canadian consumer confidence records highest levels in history of a country detecting BSE

88% trust CFIA
86% said Canadian Beef was safe to eat
85% trust CCA
84% trust cattle producers
65% stated they would buy more beef if it would help Canadian beef farmers

No other country in the history of BSE has experienced a subsequent increase in beef consumption.

Transparent and factual communications empower people to make appropriate decisions.

Canadian beef consumption jump 60% and 70% in July & August



- Jump in consumer consumption occurred following:
  - CFIA investigation
  - Implementation of Specified Risk Materials policy

With restored market access, we believe international consumers will openly receive Canadian beef

- Mexico – a case in point: export volumes to Mexico recovered to pre-BSE levels – and reached new highs
- exports going to the Philippines and Macau
- approximately 23 international markets have resumed trade in Canadian beef

"I look forward to the confident resumption in trade of safe Canadian beef products throughout the world."

Ben Thorlakson
Chairman
Canada Beef Export Federation

"I look forward to the confident resumption in trade of safe Canadian beef products throughout the world."

Ben Thorlakson

Chairman

Canada Beef Export Federation

Canada Beef

- End -

Short Term Market Prospects for MERCOSUR Beef

Arturo Llavallol
President of the Argentine Beef Promotion Institute
2nd. Vicepresident of the Sociedad Rural Argentina

Short Term Market Prospects for MERCOSUR Beef

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BEEF AND VEAL
Production - CWT.000

	1997	1998	1999	2000	2001	2002	2003
ARGENTINA	2712	2469	2720	2718	2461	2700	2800
BRASIL	6050	6140	6050	6300	6820	7240	7385
PARAGUAY	226	231	246	238	200	205	215
URUGUAY	468	454	420	450	371	412	424
MERCOSUR	9,456	9,294	9,436	9,706	9,852	10,557	10,824

Source: IEF, SRA based on FAO and USDA

Per Capita Consumption
kgr./inhab /year

	1999	2000	2001	2002
ARGENTINA	67.8	66.5	63.9	59.6
BRASIL	35.5	36.9	35.2	34.9
PARAGUAY	41.0	42.7	43.7	42.0
URUGUAY	56.2	55	57.9	48.6

World average consumption = 9.3 kgr/inhab/year

Source: Argentine Rural Society

MERCOSUR Foreing Trade
in 000 CWT

	1993	1998	1999	2000	2001	2002	2003
• Brasil	448	370	541	554	789	929	1.194
• Argent.	283	291	339	343	150	329	338
• Uruguay	108	279	246	279	177	259	320

Source: IMS - GIRA

MERCOSUR Major destinations

Fresh and Frozen	EU
	South America
	Middle East
	the USA
Processed	EU, USA

Source: TMS - GIRA

EU 2003 Beef Major Suppliers

Brazil	55.4 %
Argentina	18 %
Poland	8.6 %
Uruguay	5.3 %
MERCOSUR	78.7 %

Source: EU Beef Forecasting Group

EU BEEF SUPPLY AND DEMAND (CWE 000 tons)

YEAR	PRODUCTION	EXPORTS	CONSUMPTION	SURPLUS/DEFICIT
2002	7450	550	7400	(515)
2003	7350	440	7580	(676)
2004	7280	360	7520	(602)
2005	7100	300	7510	(711)

Source: EU beef Forecasting Group

EU BEEF IMPORTS (CWE 000 tons)

YEAR	TONS
2001	375
2002	475
2003	500
2004	600*
2005	720*

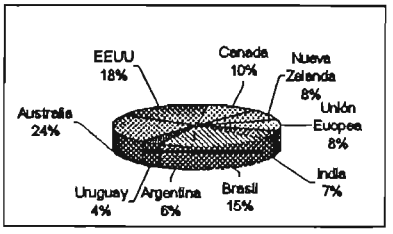
Source: SRA

* Estimates

Mercosur - EU
NEW BEEF AGREEMENT

- It is a very important negotiation for MCS
- It is considered sensible by our sector
- EU would give us a new beef quota divided into two fases.
  - Mercosur wants more quota than EU is offering us in only one fase, with zero tariff
  - Negotiation is actually on course and will probably end by October, 2004.

World Market Share
Beef Exports 2002

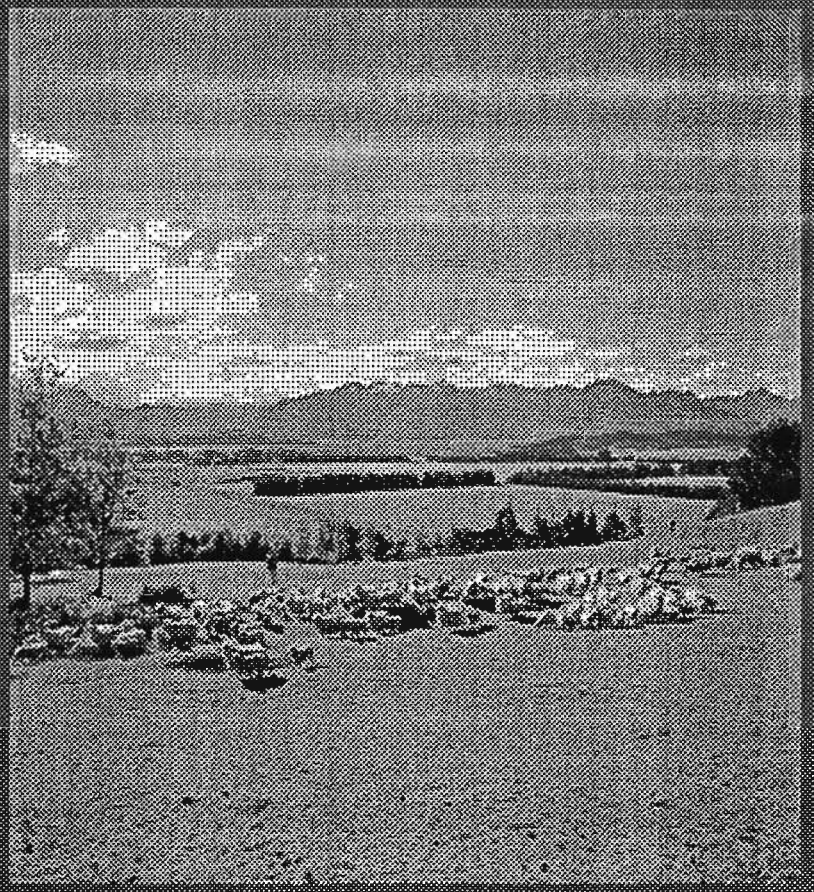


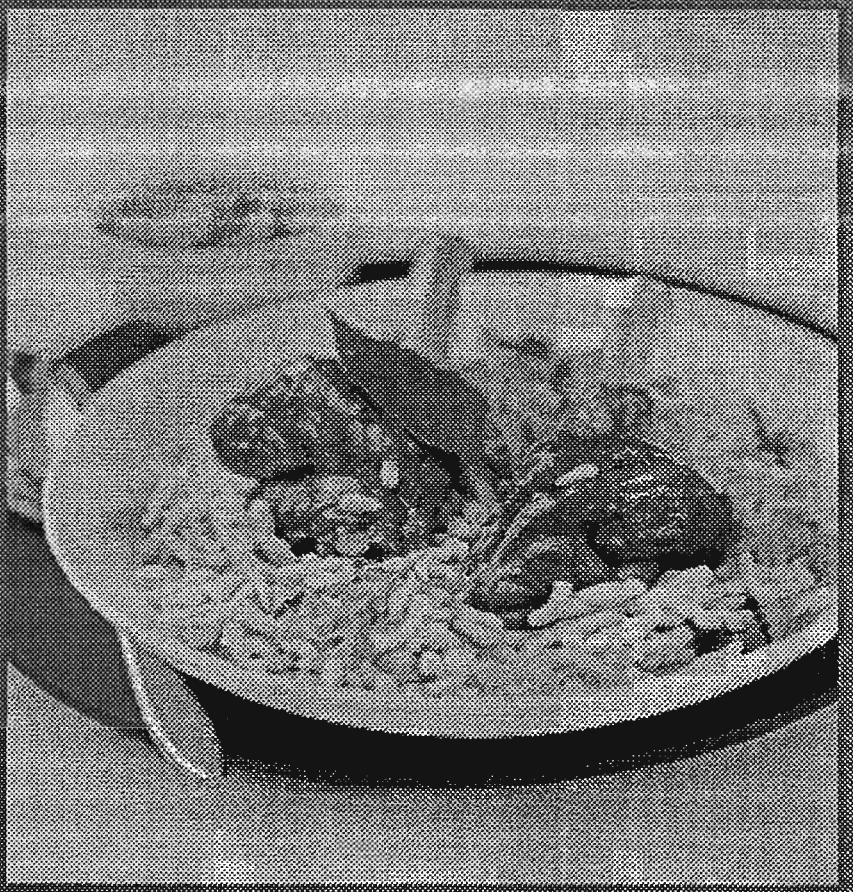
Source: USDA and Institute for Economic Research –Argentine Rural Society

MERCOSUR : 25% of TOTAL

meat NEW ZEALAND

Situation and Outlook





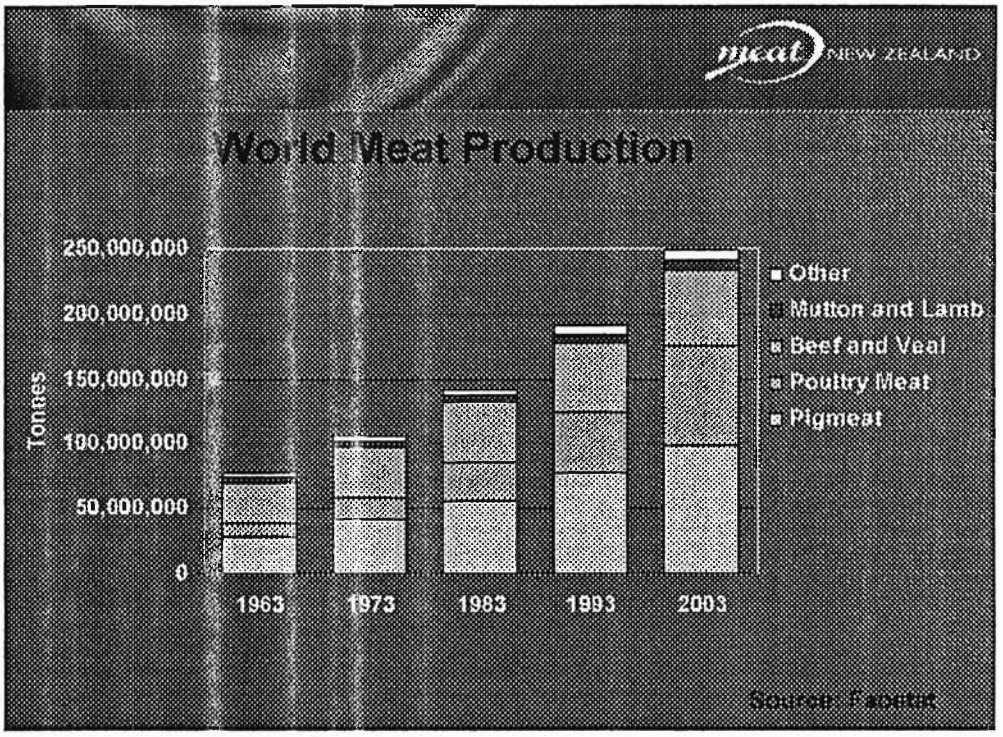
meat NEW ZEALAND

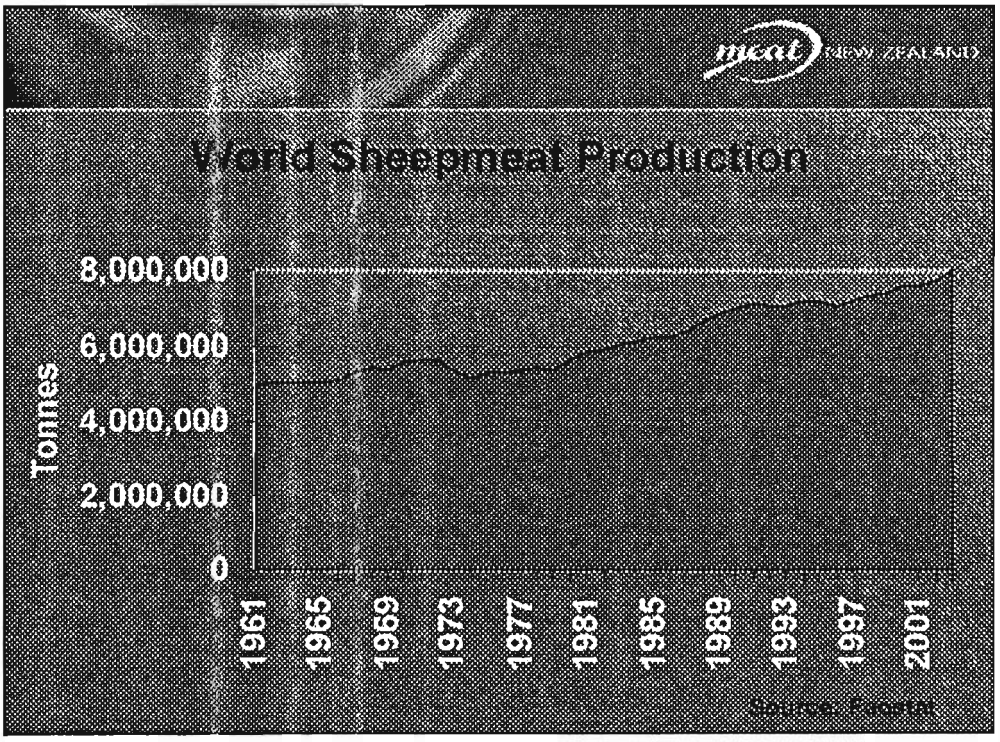
Situation and Outlook

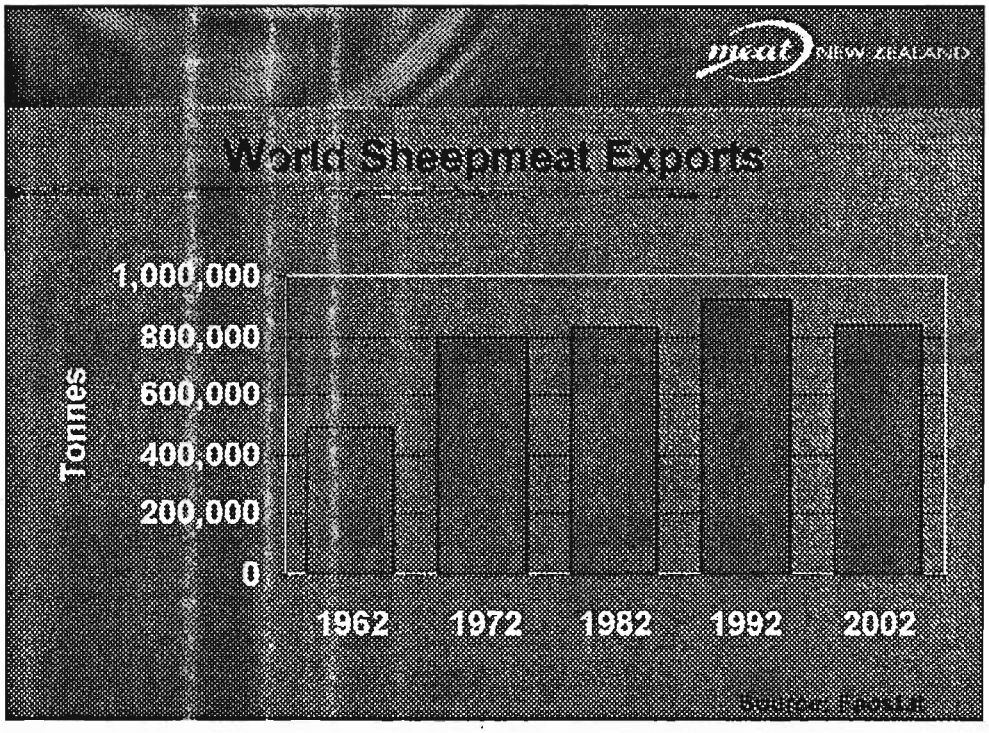
meat NEW ZEALAND

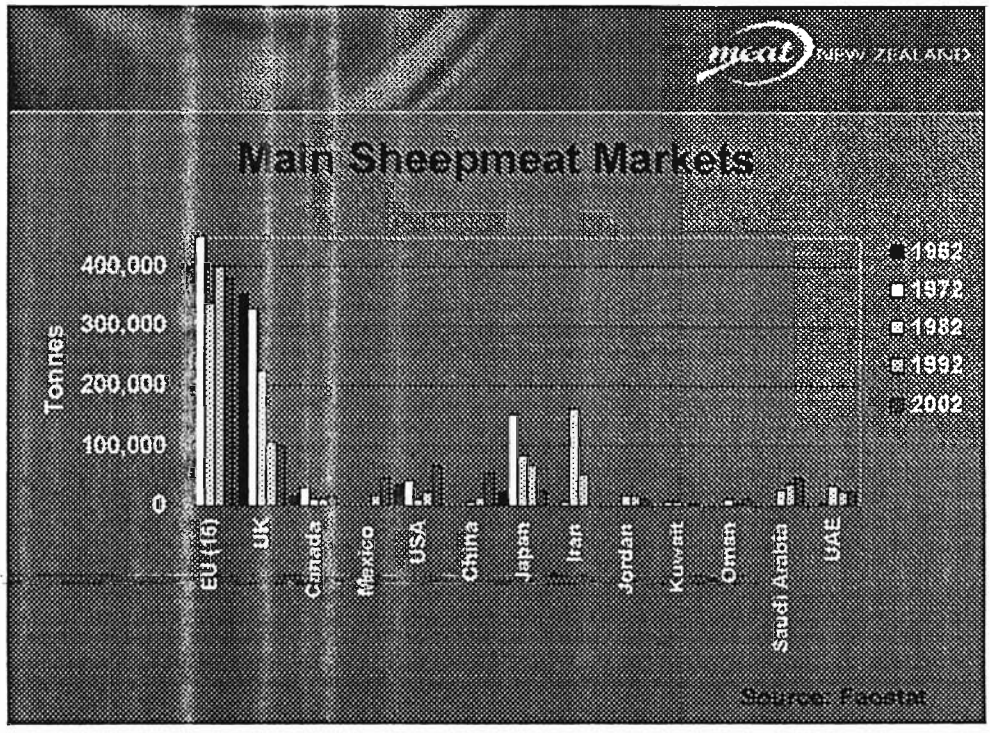
Introduction

- World Meat Production
- World Sheepmeat Production
- World Sheepmeat Exports
- Main Sheepmeat Markets
- World Sheepmeat Production by Country
- Lamb Consumption
- International Meat prices
- Distribution of World Population – the next 10 years
- Distribution of World Income – the next 10 years
- Producer Support Estimates (PSE)
- Country Overviews
- Summary


meat NEW ZEALAND
World Meat Production
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0
Tonnes
1963
1973
1983
1993
2003
Other
Mutton and Lamb
Beef and Veal
Poultry Meat
Pigmeat
Source: Faostat

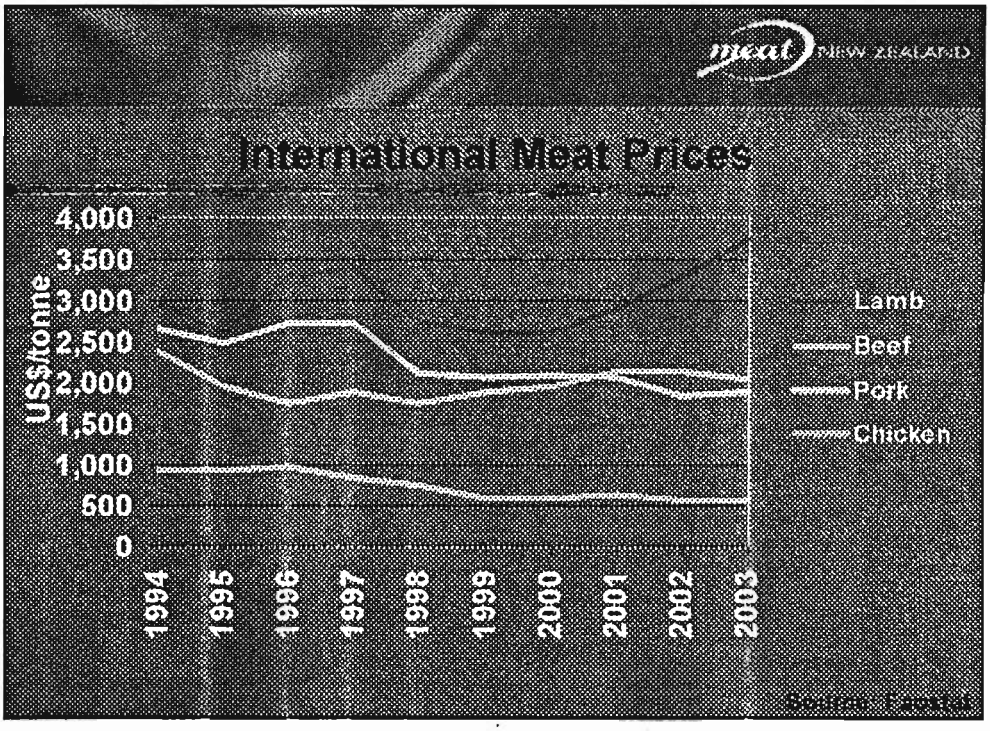

meat NEW ZEALAND
World Sheepmeat Production
8,000,000
6,000,000
4,000,000
2,000,000
0
Tonnes
1961
1965
1969
1973
1977
1981
1985
1989
1993
1997
2001
Source: Faostat

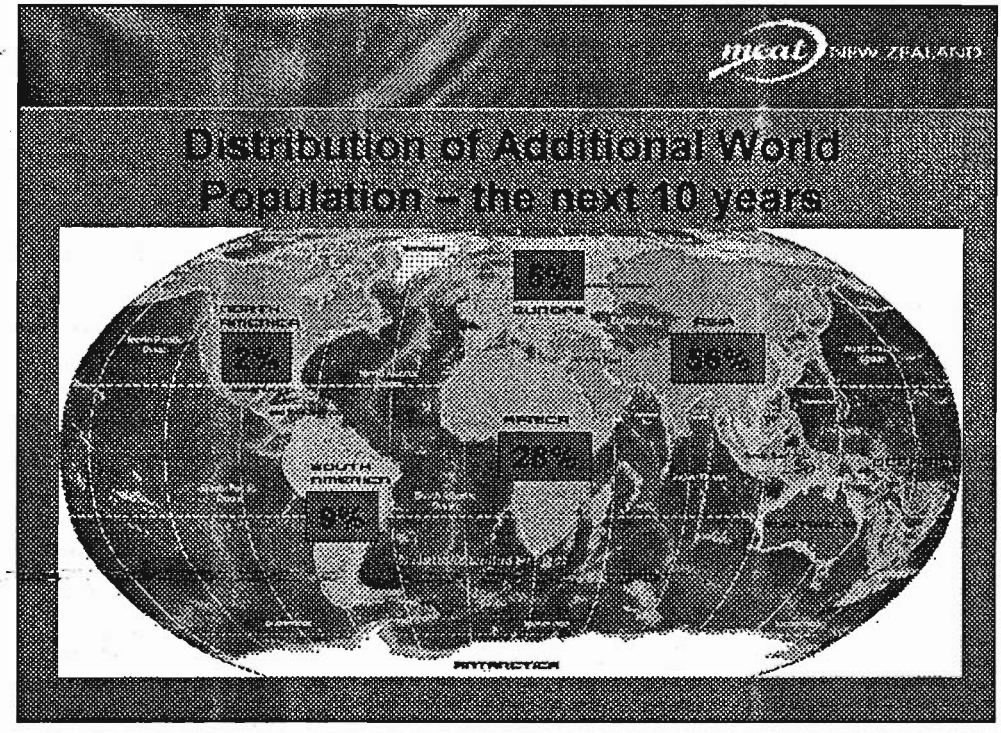

meat NEW ZEALAND
World Sheepmeat Exports
Tonnes
1,000,000
800,000
600,000
400,000
200,000
0
1962
1972
1982
1992
2002
Source: Faostat


meat NEW ZEALAND
Main Sheepmeat Markets
Tonnes
400,000
300,000
200,000
100,000
0
EU (15)
UK
Canada
Mexico
USA
China
Japan
Iran
Jordan
Kuwait
Oman
Saudi Arabia
UAE
1962
1972
1982
1992
2002
Source: Faostat

meat NEW ZEALAND
World Sheepmeat Production by Country
Tonnes
2,000,000
1,600,000
1,200,000
800,000
400,000
1963
1973
1983
1993
2003
China
EU (15)
Australia
New Zealand
Middle East
Argentina
USA
Uruguay
Source: Faostat

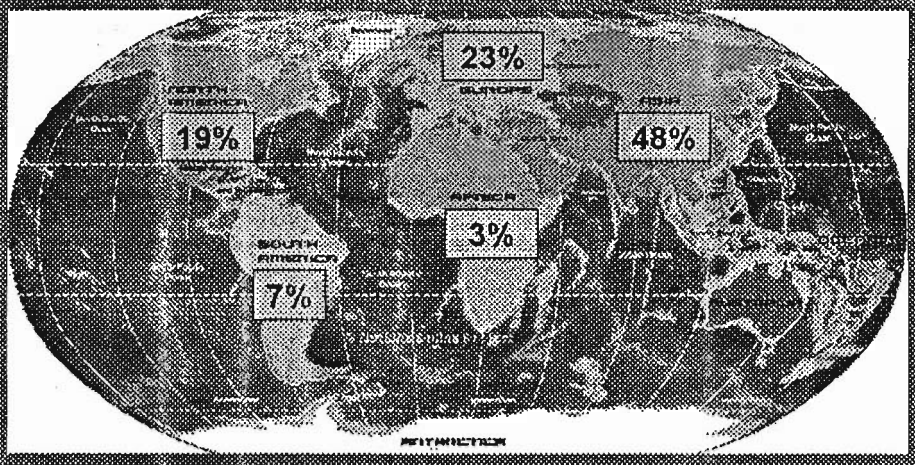
meat NEW ZEALAND
Per Capita Lamb Consumption
kg/capita
40
35
30
25
20
15
10
5
0
1990
2000
NZ
UAE
Australia
Kuwait
Greece
Uruguay
Ireland
UK
Saudi Arabia
Spain
Bulgaria
South Africa
China
Romania
Mexico
Argentina
India
Russia
US
Japan
Source: MHR Vlandes


meat NEW ZEALAND
International Meat Prices
US$/tonne
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
Lamb
Beef
Pork
Chicken
Source: Eastat


meat NEW ZEALAND
Distribution of Additional World Population – the next 10 years
5%
EUROPE
NORTH AMERICA
2%
56%
AFRICA
28%
SOUTH AMERICA
9%
ANTARCTICA

meat NEW ZEALAND

Distribution of Additional World Income – the next 10 years



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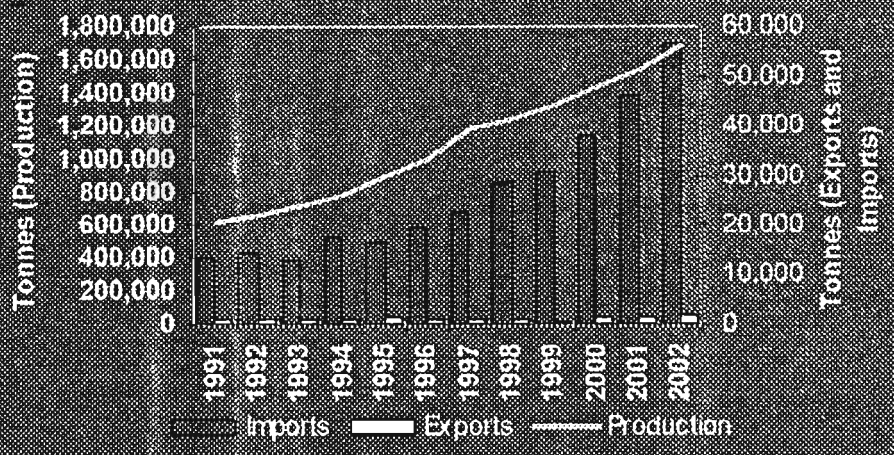
Producer Support Estimate (PSE)

	EU	US	OECD
Sheepmeat	38%	19%	27%
Poultry	38%	5%	18%
Pork	26%	5%	24%
Beef and veal	79%	5%	37%

Source: OECD PSE/CSE Database 2003

meat NEW ZEALAND

China



Source: Fao.org

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Australia

- Smallest sheep flock since 1946
- Drought has continued to affect many areas
- Lamb slaughter and production in 2003/04 down 8%
- Shift into lamb production
- Outlook
  - Sheep numbers drop further in 2004
    - then increase by 1-2% p.a.
  - Continued shift to lamb production
  - Domestic consumption increases by 35% by 2007
  - Lamb exports grow by 57% to 2007
  - Live sheep exports stable at 5-6m

New Zealand

- Lowest sheep numbers in 48 years
- Spring 2003 Lambing
  - Drought affected, but still second highest on record
  - Lambs born - down 5%
- Land slaughter and production in 2003/04
  - Down 2%
  - Lowest since mid 1990s
- Outlook
  - Stable sheep numbers
  - Slight increase in breeding ewes
  - Small increases in production
  - Rate rise dominated by value of NZD

European Union

- December 2003 sheep census – decline around 1%
- Largest flocks
  - UK -1% in total -<1% breeding ewes
  - Spain -3% in total -4% breeding ewes
  - France -2% in total -3% breeding ewes
  - Italy down slightly
  - Ireland/Portugal: steady
  - Hungary +16% to 1.3m

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European Union (continued)

- Outlook – influenced by:
  - Tight supplies
  - Rebuilding of flocks post-FMD
  - Impact of CAP reform
  - EU enlargement – minimal impact on production
  - Beef intervention stocks

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United States

- Sheep numbers continue to decline
- Lamb consumption is low – but steady – per capita
- Imports affect declining production
- Low lamb prices strong, but input prices high – lambs and feed
- Outlook
  - Economic recovery
  - Continued strong lamb meat prices, competition from AU and NZ
  - Impact of LB/AAP
  - Challenges in identifying markets for diversification/segmentation

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Summary

- Sheepmeat traditional product
- Lamb has been repositioned
- World supply flat but demand increasing
- Meeting consumer preferences key to success
- Consumers more demanding
- Attention to detail throughout the chain essential
- Integrity vital at all times
- Must move increasingly from commodity to added value products

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Research and Development

New Zealand

Research and Development

New Zealand

Outcome Areas

- Sheep Genomics
- Greenhouse Gas Reduction
- Farm Health
- Farm Productivity
- Meat Products and Quality
- Wool Products and Quality
- Processing and Harvesting Efficiency
- Information Transfer

Sheep Genomics

- Ovita Limited
  - Formed by Meat New Zealand, AgResearch and Wool Equities
  - Focus – commercialisation of intellectual property and products derived from genetic research and knowledge of the sheep genome
  - Not involved in the production of GM sheep

Ovita

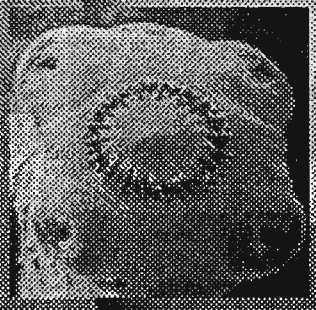
Greenhouse Gas Reduction

- Pastoral Greenhouse Gas Research Consortia (PGgRC)
  - Formed by the Sheep, Beef, Goat, Deer and Dairy industries
  - Aims
    - reduce the emission of methane and nitrous oxide, and
    - improve animal efficiency
  - Outcome: lower emissions and increased productivity

Farm Health

Major investment programmes are:

- Internal Parasites
  - Methods of controlling drench resistance
- Tarburns
  - Solving the agronomy issues of tarburn & painting Mains
- Johnes Disease
  - Development of a vaccine



Farm Productivity

Major investment programmes are:

- High Performance Sheep Systems
  - Research to maximise sheep production
  - Includes lamb genetics, reproductive efficiency survivability and growth rate
- Forage and Nutrition
  - Tools to get maximum growth rate from pastures
  - Reducing intake of toxic endophytes

Meat Products and Quality

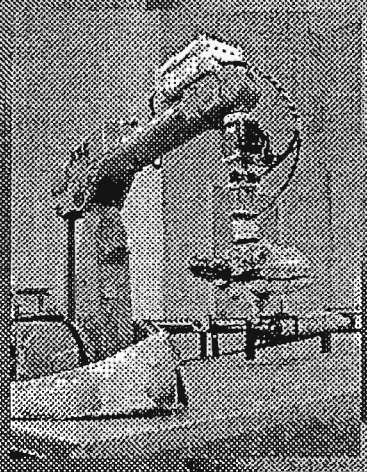
Major investment programmes are:

- Food Safety
- Meat Quality
- Meat Biologics Consortia
  - The consortia will develop new high-value products for human health and nutriceuticals.

Processing and Harvesting Efficiency

Major investment programmes are:

- De-pelting
  - Improved mechanical pell removal
- Improved co-products returns
  - Improving skin quality
- Automation
  - Automated handling in the boning room



Information Transfer

- Monitor Farm Programme
  - 30 farms
    - Distributed nationally
    - Benchmarked and
    - Work to improve performance and profitability
- Farmer Initiated Technology Transfer (FITT)
  - Small scale funding for local farmer grou
    research
- Producer Councils
  - Sheep, Beef and Goat

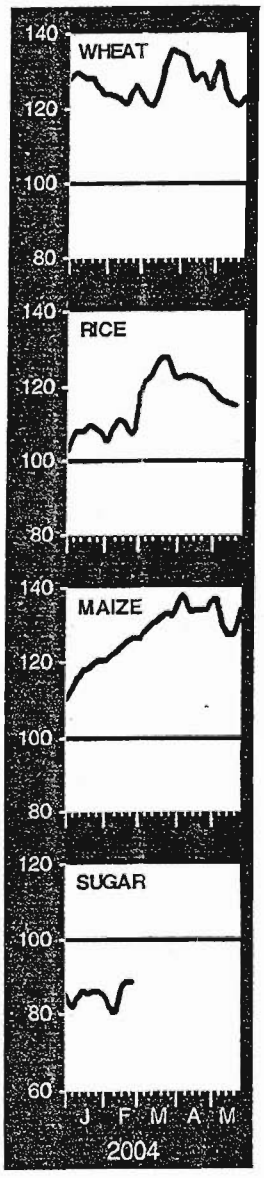
global information and early warning system on food and agriculture

food outlook

No. 2 June 2004

highlights

EXPORT PRICES
(July 2003=100)



FAO's latest forecast of global cereal production in 2004 is 1 956 million tonnes, a substantial increase from the previous year. However, despite a modest expected rise in utilization, the new 2004/05 marketing season may lead to a fifth consecutive annual drawdown of global cereal stocks.

FAO's first forecast of global cereal trade in 2004/05 stands at 229.7 million tonnes, 3 percent down from the previous year. The decline mostly reflects, good crop prospects in traditional importing countries, as well as a strong production recovery in Europe. In the case of rice, trade is also expected to be limited by tight supplies in major exporting countries.

After rising for several months, international prices of most cereals eased back somewhat in recent weeks reflecting generally favourable prospects for the 2004 crops and, for rice, also the release of government stocks onto domestic markets in China and Thailand.

Global cassava production is forecast to expand in 2004, alongside a sharp increase in trade. A tightening of feed grain supplies in China could stimulate cassava imports to the country and could further strengthen international prices.

International meat prices are surging in 2004 as animal disease outbreaks in major meat exporting countries and resulting bans on imports from these areas are reducing exportable supplies.

International prices for dairy products were well above average during the first-half of 2004, as a result of sustained import demand and limited availability of export supplies. For the remainder of the year, prices are expected to remain at or near their current high levels.

International prices in the oilcrop complex have continued to rise strongly in the past few months, b[illegible] y slower growth in palm oil pro[illegible]

World pulse production is forecast to reach a record 60 million tonnes in 2004, which could lead to increased consumption and trade during the year.

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Meat and Meat Products

Meat and meat product prices continue to rise

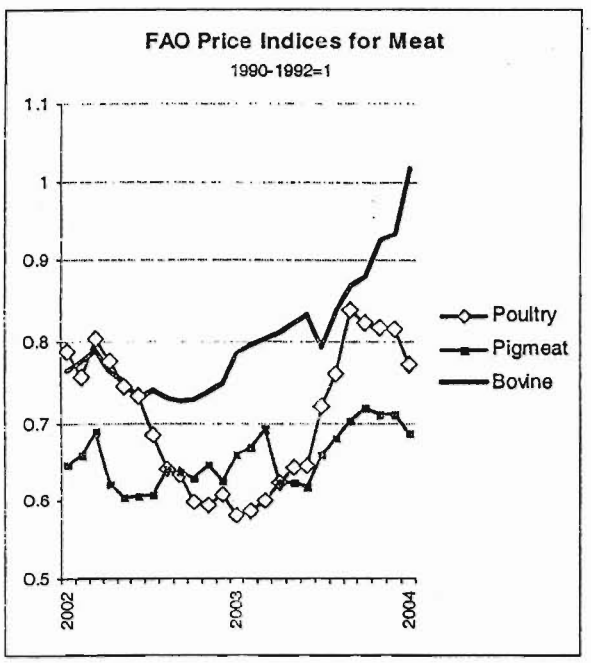
International meat prices are surging in 2004, as animal disease outbreaks in major meat exporting countries and bans on imports from disease afflicted areas are reducing exportable supplies. Expectations of higher international prices for meat came on the heels of rising prices in the previous year. In 2003, the FAO trade-weighted meat price index rose already by 16 percent, as limited meat production gains lifted prices by 42 percent for poultry, 19 percent for beef and 8 percent for pigmeat.

Animal diseases, rising feed prices and considerable uncertainty about consumer demand for meat products are slowing the expansion in global meat output in 2004. Production is expected to rise by 1 percent to 253.6 million tonnes, one of the slowest growths registered in FAO's database. Meat markets have been disrupted by the impact of the avian influenza (AI) which led to increased poultry mortality/culling throughout Asia and parts of North America, and the finding of Bovine Spongiform Encephalopathy (BSE) in North America. In Asia, meat output is expected to increase less than 2 percent, half the average rate of the past five years. Output gains in developed countries are expected to remain stable with a slight increase in North America offset by a decline in Europe. At the world level, per caput meat consumption is expected to remain at 39.9 kg/caput, constrained by high overall meat prices and consumer concerns about the safety of eating poultry, particularly in Asia.

Import bans on meat produced in disease-afflicted countries in early 2004 affected approximately one-third of global meat exports, or 6 million tonnes. While the bans have been temporary, global meat trade, originally forecast to rise in 2004, is now anticipated to slide by 4 percent to 18.4 million tonnes. If confirmed, this would be the first drop in meat trade since the mid-1980s. Over the past four years, alternating disease outbreaks and recoveries have resulted in rapid shortages/increases in exportable meat supplies and considerable international meat price variability. The resulting shift in trading patterns is expected to favour those disease-free meat suppliers in Latin America and Oceania. Exports from Oceania, however, are likely to be constrained in 2004 by low animal inventories and stronger currencies in the region. By contrast, meat exports from South America, which have surged over the past three years, might increase further by about 6 percent in 2004, taking the region's share of meat exports to 27 percent, up from just 16 percent in the early 1990's. Moving into the position as the world's largest meat exporter, Brazil is expected to ship over 3.8 million tonnes of meat in 2004, or 21 percent of global trade.

Limited supplies and high prices depress bovine meat trade prospects

Global bovine meat production is forecast to reach 61.9 million tonnes in 2004, up marginally from the previous year. Low cattle inventories in Oceania, BSE concerns in North America and reduced sector support in the EU are constraining slaughtering, leading to an expected 2 percent drop in bovine meat production in developed countries. By contrast, output in developing regions is anticipated to rise by 3 percent, with continued strong gains foreseen in China, India, the Republic of Korea and Mexico. Per caput beef consumption is set to drop by 1 percent in both developed and developing regions to 22.7 and 6.4 kg/caput, respectively.



Higher prices and import bans on products originating from North America are expected to reduce global beef trade by 8 percent to 5.6 million tonnes. North American exports, totalling 1.5 million tonnes in 2003 and valued at US$4 billion, are expected to plummet by 50 percent. While exports from Canada will recover as the United States lifts import restrictions on Canadian products, United States exports are estimated to decline by 82 percent. As demand for beef from disease-free suppliers surges, shipments from South America might expand by 17 percent, with Brazil's share of global beef shipments rising to 22 percent. However, the gap left by beef trade restrictions on North American products is unlikely to be entirely filled by South American or Oceania. Consequently, purchases by the major importing countries of Japan, Mexico, and the Republic of Korea are projected to fall by 35 percent, 30 percent, and 40 percent respectively. While Indian beef exports are likely to rise by 14 percent, a marginal decline in Australian shipments is anticipated, on account of limited inventories and an appreciating currency. The EU is set to register their second year as a net beef importer as exports decline for the fifth consecutive year.

World Meat Statistics[1/]

	2002	2003 estimate	2004 prelim.
	(. . . . million tonnes . . . .)		
PRODUCTION	**246.3**	**250.4**	**253.6**
Poultry meat	74.6	76.1	77.1
Pig meat	94.2	96.2	97.7
Bovine meat	61.3	61.7	61.9
Sheep & goat meat	11.8	12.0	12.4
Other meat	4.5	4.5	4.5
EXPORTS[2/]	**18.6**	**19.1**	**18.4**
Poultry meat	7.8	7.9	7.6
Pig meat	3.8	4.2	4.3
Bovine meat	5.9	6.1	5.6
Sheep & goat meat	0.7	0.7	0.7
Other meat	0.3	0.3	0.3
PER CAPITA CONSUMPTION	**39.8**	**39.9**	**39.9**
Poultry meat	12.0	12.1	12.2
Pig meat	15.2	15.3	15.4
Bovine meat	9.9	9.9	9.7
Sheep & goat meat	1.9	1.9	2.0
Other meat	0.7	0.7	0.7

Source: FAO Note: Total computed from unrounded data.
1/ For more detailed meat statistics, go to the following web site: http:/www.fao.org/es/ESC/en/20953/21014/index.html
2/ Includes meat (fresh, chilled, frozen prepared and canned) in carcass weight equivalent; excludes live animals, offals and EC (15) intra-trade.

Poultry output edges up but Avian Influenza (AI) cuts into trade prospects

Rising feed prices, AI induced bird mortality and slaughter, combined with consumer responses to the spread of AI is leading to a second year of slow growth in poultry meat output. Production in 2004 is forecast at 77.1 million tonnes, implying an increase of just 1 percent from the previous year, well below the average 5 percent growth of the past five years. Beset by AI outbreaks in early 2004, Asian poultry output is set to drop by 2 percent as disease-afflicted countries, i.e. Thailand, Viet Nam, Japan, the Republic of Korea, and Indonesia, among others, are estimated to have culled over 100 million birds. Recovery in many of these Asian countries, including those not affected by the disease, is constrained by lower prices in the wake of shaken consumer confidence in poultry and rising feed costs. Per caput consumption in the developing countries is forecast to decrease slightly to 8.2 kg/caput, mostly due to an estimated 2-percent decline in Asia. At the global level, per caput consumption, which grew 3 percent annually over the past five years, is expected to remain stable at 12 kg/caput.

Import bans on products originating from the 12 Asian and North American countries that were affected early in 2004 by AI are reducing supplies in world markets and causing international prices to rise. As a result, global trade in poultry products in 2004 is anticipated to contract by 4 percent to 7.6 million tonnes. Led by lower exports from the United States, developed country exports are expected to witness a third year of consecutive decline, sliding 5 percent to an estimated 3.8 million tonnes. Disease outbreaks are restricting Asian poultry exports, supplied by mainly Thailand and China, with shipments from the region forecast to be down by 21 percent. Non-traditional exporters in Asia, such as India, Malaysia, and the Philippines are increasing their exports while exports from Brazil, which have registered double-digit gains over the past 7 years, are expected to rise by a further 10 percent. High prices and consumer concerns are expected to reduce imports by major importers in Asia while trade barriers in the Russian Federation, will cause a further contraction in their imports.

Despite limited pigmeat output gains and higher prices, trade could expand

Low returns to hog producers in the context of higher feed prices are expected to limit growth in global pigmeat production to less than 2 percent in 2004, taking output to 97.7 million tonnes. In many countries, production costs are exceeding market prices as international maize and soybean meal prices have soared 20 percent and 65 percent respectively compared with last year. Lower profitability facing many of the producers in Europe and Brazil, combined with reduced prospects for exports to the Russian Federation, are negatively affecting the production outlook. Developed countries are set to experience a slight decline in output. This is despite, in the United States, a projected rise in output by 3 percent supported by strong consumer demand. In Asia, which accounts for 56 percent of global output, and where AI has bolstered pigmeat prices, output is set to increase by 3 percent. While per caput consumption is moving up in Asia and developing countries by 2 percent in 2004 to nearly 15 kg/caput and 11.8 kg/caput respectively, it remains significantly below the level of 29.2 kg/caput in developed countries.

Trade prospects for pigmeat in 2004 are stronger than for poultry and bovine meats, with exports estimated at 4.3 million tonnes, or 2 percent higher than last year. Much of the increase is expected to be sourced in North America, which typically exports high valued cuts to lucrative Asian markets. Shipments by other traditional exporters are expected to be hampered by trade restrictions in the Russian Federation, which was the world's

largest meat importer until its imposition of tariff rate quotas in 2003. Limited access to the Russian Federation market, where imports are forecast to be down by 12 percent, is set to reduce Brazilian shipments by 40 percent while the elimination of EU export subsidies early this year is forecast to reduce EU exports by 4 percent. By contrast, shipments from Mexico and Chile are anticipated to rise as a result of a trade agreement with Japan where strong consumer demand is bringing about an estimated 12 percent rise in imports, to a new record level. This is despite expectations that the strong import pace might retrigger the pigmeat safeguard, leading to higher tariffs in August.

Output and trade gains for ovine meat to exceed that of other meats

Global ovine meat production is expected to increase by 3 percent in 2004 to 12.4 million tonnes. Growth in Asia, which accounts for more than half of global production, is expected to rise 4 percent, supported by rising output in China. Despite a steady decline in United States output, growth in developed countries should be supported by a recovery of production in Australia, the EU and New Zealand. Global per caput consumption is forecast up 2 percent to 2 kg/caput.

A recovery in drought-affected exportable supplies from Australia and strong supply availability in New Zealand is leading to an estimated 3 percent increase in trade to 696 000 tonnes. Shipments from Oceania, which comprise 90 percent of global exports, are stimulated by higher import demand from the EU, North America, and Mexico.

BOVINE MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	46,695	59,858	59,205	61,284	61,687	61,898	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	23,625	30,063	29,515	30,197	29,728	29,088	50.6	50.2	49.9	49.3	48.2	47.0
Developing countries	23,071	29,795	29,690	31,087	31,959	32,810	49.4	49.8	50.1	50.7	51.8	53.0
UNITED STATES	10,584	12,298	11,983	12,427	12,042	11,510	22.7	20.5	20.2	20.3	19.5	18.6
EU (15)	0	7,437	7,363	7,541	7,440	7,290	0.0	12.4	12.4	12.3	12.1	11.8
BRAZIL	4,807	6,540	6,671	7,136	7,385	7,570	10.3	10.9	11.3	11.6	12.0	12.2
CHINA (MAINLAND)	2,336	5,328	5,488	5,846	6,130	6,500	5.0	8.9	9.3	9.5	9.9	10.5
C.I.S (12)	6,543	3,888	3,763	3,977	4,034	3,919	14.0	6.5	6.4	6.5	6.5	6.3
INDIA	2,632	2,863	2,881	2,906	2,961	3,060	5.6	4.8	4.9	4.7	4.8	4.9
ARGENTINA	2,808	2,718	2,452	2,700	2,800	2,650	6.0	4.5	4.1	4.4	4.5	4.3
AUSTRALIA	1,826	1,988	2,119	2,028	1,935	1,900	3.9	3.3	3.6	3.3	3.1	3.1
MEXICO	1,256	1,409	1,445	1,451	1,452	1,520	2.7	2.4	2.4	2.4	2.4	2.5
CANADA	860	1,264	1,250	1,272	1,245	1,450	1.8	2.1	2.1	2.1	2.0	2.3
OTHERS	13,044	14,125	13,792	14,000	14,262	14,529	27.9	23.6	23.3	22.8	23.1	23.5

BOVINE MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EU i.-t.)	4,665.2	5,475.0	5,430.5	5,833.9	5,986.4	5,495.7	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	3,377.4	3,547.1	3,715.0	3,720.5	3,756.9	3,622.9	72.4	64.8	68.4	63.8	62.8	65.9
Developing countries	1,287.9	1,928.0	1,715.5	2,113.5	2,229.5	1,872.7	27.6	35.2	31.6	36.2	37.2	34.1
UNITED STATES	1,006.0	1,308.1	1,352.5	1,370.5	1,281.0	1,412.0	21.6	23.9	24.9	23.5	21.4	25.7
C.I.S (12)	775.6	389.2	576.2	661.0	657.2	698.3	16.6	7.1	10.6	11.3	11.0	12.7
JAPAN	706.7	964.3	905.8	851.5	772.0	500.0	15.1	17.6	16.7	11.2	12.9	9.1
MEXICO	121.3	392.8	399.0	459.2	425.0	300.0	2.6	7.2	7.3	7.9	7.1	5.5
EU (15) (excl. intra-trade)	390.1	383.0	353.0	451.3	470.0	500.0	8.4	7.0	6.5	7.7	7.8	9.1
KOREA, REP.	131.3	277.2	209.6	370.6	367.0	220.0	2.8	5.1	3.9	6.4	6.1	4.0
CANADA	261.1	263.8	299.9	307.7	280.0	200.0	5.6	4.8	5.5	5.3	4.7	3.6
EGYPT	138.0	199.2	97.6	142.3	130.0	130.0	3.0	3.6	1.8	2.4	2.2	2.4
CHILE	45.7	121.0	115.0	132.8	170.0	180.0	1.0	2.2	2.1	2.3	2.8	3.3
MALAYSIA	67.1	120.7	122.5	127.3	135.0	140.0	1.4	2.2	2.3	2.2	2.3	2.5
OTHERS	1,022.5	1,055.8	999.4	1,159.6	1,299.2	1,215.4	21.9	19.3	18.4	19.9	21.7	22.1

BOVINE MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EU i.-t.)	4,776.5	5,728.4	5,536.9	5,847.8	6,062.3	5,609.0	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	3,654.0	4,218.2	4,085.3	4,139.2	3,787.3	3,000.6	76.5	73.6	73.8	69.6	62.5	53.5
Developing countries	1,122.5	1,510.1	1,451.6	1,808.5	2,275.0	2,608.4	23.5	26.4	26.2	30.4	37.5	46.5
AUSTRALIA	1,058.5	1,208.0	1,265.5	1,236.0	1,130.0	1,128.0	22.2	21.1	22.9	20.8	18.6	20.1
UNITED STATES	541.3	1,165.2	1,010.6	1,071.9	1,105.0	204.0	11.3	20.3	18.3	18.0	18.2	3.6
BRAZIL	302.8	410.8	645.0	757.9	1,050.0	1,230.0	6.3	7.2	11.7	12.7	17.3	21.9
CANADA	185.5	491.6	542.3	579.5	375.0	550.0	3.9	8.6	9.8	9.7	6.2	9.8
EU (15) (excl. intra-trade)	1,064.8	622.6	547.0	480.7	380.0	310.0	22.3	10.9	9.9	8.1	6.3	5.5
NEW ZEALAND	395.0	457.2	449.1	441.4	480.0	490.0	8.3	8.0	8.1	7.4	7.9	8.7
INDIA	101.8	288.2	243.8	298.6	350.0	400.0	2.1	5.0	4.4	5.0	5.8	7.1
ARGENTINA	213.6	301.8	134.6	296.5	320.0	360.0	4.5	5.3	2.4	5.0	5.3	6.4
URUGUAY	81.8	223.6	141.0	204.8	265.0	295.0	1.7	3.9	2.5	3.4	4.4	5.3
C.I.S (12)	233.0	180.4	157.1	190.5	212.6	218.6	4.9	3.2	2.8	3.2	3.5	3.9
OTHERS	598.5	378.9	400.8	389.8	394.7	423.4	12.5	6.6	7.2	6.6	6.5	7.5

BOVINE MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	46,620	59,975	58,903	61,201	61,913	61,786	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	23,362	29,737	28,836	29,863	30,010	29,785	50.2	49.6	49.0	48.8	48.5	48.2
Developing countries	23,239	30,238	30,067	31,338	31,903	32,021	49.8	50.4	51.0	51.2	51.5	51.8
UNITED STATES	11,152	12,389	12,288	12,698	12,296	12,715	23.9	20.7	20.9	20.7	19.9	20.6
EU (15)	-718	7,578	6,940	7,557	7,720	7,494	-1.5	12.6	11.8	12.3	12.5	12.1
BRAZIL	4,534	6,179	6,073	6,444	6,395	6,405	9.7	10.3	10.3	10.5	10.3	10.4
CHINA (MAINLAND)	2,186	5,291	5,441	5,822	6,111	6,469	4.7	8.8	9.2	9.5	9.9	10.5
C.I.S (12)	7,120	4,118	4,186	4,457	4,479	4,399	15.3	6.9	7.1	7.3	7.2	7.1
INDIA	2,531	2,575	2,637	2,608	2,612	2,660	5.4	4.3	4.5	4.3	4.2	4.3
ARGENTINA	2,602	2,431	2,357	2,411	2,492	2,300	5.6	4.1	4.0	3.9	4.0	3.7
MEXICO	1,377	1,791	1,833	1,901	1,865	1,810	3.0	3.0	3.1	3.1	3.0	2.9
JAPAN	1,306	1,482	1,322	1,256	1,328	972	2.8	2.5	2.2	2.1	2.1	1.6
CANADA	945	1,042	1,001	1,008	1,138	1,110	2.0	1.7	1.7	1.6	1.8	1.8
OTHERS	13,585	15,099	14,825	15,050	15,477	15,452	29.1	25.2	25.2	24.6	25.0	25.0

BOVINE MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Bov.Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	8.5	9.9	9.6	9.9	9.9	9.7	29.6	25.7	24.8	24.8	24.7	24.4
Developed countries	18.5	23.0	22.2	22.9	23.0	22.7	35.9	29.0	27.7	27.8	27.9	27.5
Developing countries	5.5	6.4	6.2	6.4	6.4	6.3	25.2	23.1	22.5	22.5	22.3	22.0
ARGENTINA	76.8	65.7	62.9	63.5	64.9	59.2						
URUGUAY	64.1	77.8	52.4	62.0	52.5	49.2						
UNITED STATES	42.6	44.5	43.8	44.9	43.2	44.4						
AUSTRALIA	44.0	41.0	44.9	39.7	41.7	42.1						
NEW ZEALAND	61.2	39.6	46.0	38.5	47.1	43.5						
BRAZIL	29.3	36.3	35.3	37.0	36.2	35.9						
PARAGUAY	42.1	34.4	34.2	36.7	32.0	27.2						
CANADA	32.7	33.5	31.9	31.8	35.6	34.4						
SWAZILAND	24.6	15.7	20.9	21.7	22.8	22.6						
CHILE	19.6	22.8	21.6	21.3	22.7	23.2						
EU (15)	-1.9	20.2	18.5	20.1	20.5	19.9						

OVINE MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	8,796	11,312	11,437	11,767	12,017	12,399	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	2,665	3,348	3,277	3,217	3,194	3,249	30.3	29.6	28.6	27.3	26.6	26.2
Developing countries	6,131	7,964	8,160	8,550	8,823	9,150	69.7	70.4	71.4	72.7	73.4	73.8
CHINA (MAINLAND)	1,373	2,740	2,927	3,167	3,400	3,640	15.6	24.2	25.6	26.9	28.3	29.4
EU (15)	0	1,139	1,023	1,053	1,076	1,085	0.0	10.1	8.9	9.0	9.0	8.8
INDIA	635	696	699	703	707	710	7.2	6.2	6.1	6.0	5.9	5.7
AUSTRALIA	655	691	726	656	560	570	7.4	6.1	6.3	5.6	4.7	4.6
PAKISTAN	595	506	520	532	547	560	6.8	4.5	4.5	4.5	4.6	4.5
NEW ZEALAND	488	534	564	523	549	570	5.5	4.7	4.9	4.4	4.6	4.6
C.I.S (12)	935	509	500	511	515	522	10.6	4.5	4.4	4.3	4.3	4.2
IRAN ISLAMIC REP.	366	436	444	450	455	460	4.2	3.9	3.9	3.8	3.8	3.7
TURKEY	363	374	351	333	325	320	4.1	3.3	3.1	2.8	2.7	2.6
SUDAN	179	261	262	263	265	279	2.0	2.3	2.3	2.2	2.2	2.2
OTHERS	3,206	3,426	3,420	3,578	3,618	3,683	36.5	30.3	29.9	30.4	30.1	29.7

OVINE MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	621.2	721.9	689.0	686.6	711.9	742.9	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	334.2	401.0	386.2	375.1	375.1	384.3	53.8	55.6	56.0	54.6	52.7	51.7
Developing countries	287.0	320.8	302.9	311.6	336.9	358.6	46.2	44.4	44.0	45.4	47.3	48.3
EU (15) (excl. intra-trade)	198.6	222.0	222.4	223.5	226.0	230.0	32.0	30.8	32.3	32.5	31.7	31.0
UNITED STATES	24.3	60.4	66.8	74.1	78.0	80.0	3.9	8.4	9.7	10.8	11.0	10.8
MEXICO	21.0	44.7	48.9	47.0	55.0	60.0	3.4	6.2	7.1	6.8	7.7	8.1
SAUDI ARABIA	32.9	57.2	45.3	47.0	47.0	47.0	5.3	7.9	6.6	6.8	6.6	6.3
PAPUA NEW GUINEA	41.0	35.7	29.3	21.5	25.0	30.0	6.6	4.9	4.3	3.1	3.5	4.0
JAPAN	56.3	27.2	26.8	25.0	20.0	20.0	9.1	3.8	3.9	3.6	2.8	2.7
CHINA (TAIWAN PROV.)	15.3	21.6	21.8	27.3	30.0	30.0	2.5	3.0	3.2	4.0	4.2	4.0
CANADA	13.1	16.3	17.2	17.0	17.0	17.0	2.1	2.3	2.5	2.5	2.4	2.3
SOUTH AFRICA	5.9	53.2	34.2	15.4	13.0	15.0	0.9	7.4	5.0	2.2	1.8	2.0
UNIT. ARAB EMIR.	20.9	16.4	14.9	21.3	23.0	25.0	3.4	2.3	2.2	3.1	3.2	3.4
OTHERS	191.7	167.3	161.5	167.7	177.9	188.9	30.9	23.2	23.4	24.4	25.0	25.4

OVINE MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	677.3	765.3	715.8	699.3	677.2	696.1	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	612.0	710.0	675.5	657.2	625.8	642.2	90.4	92.8	94.4	94.0	92.4	92.3
Developing countries	65.3	55.3	40.3	42.0	51.4	53.9	9.6	7.2	5.6	6.0	7.6	7.7
NEW ZEALAND	359.1	380.1	346.4	341.7	356.0	370.0	53.0	49.7	48.4	48.9	52.6	53.2
AUSTRALIA	221.2	310.7	306.5	294.6	250.0	252.0	32.7	40.6	42.8	42.1	36.9	36.2
URUGUAY	10.9	16.5	9.0	6.8	6.5	7.2	1.6	2.2	1.3	0.8	1.0	1.0
INDIA	11.0	11.9	3.5	5.0	6.0	7.0	1.6	1.6	0.5	0.7	0.9	1.0
OTHERS	75.0	46.1	50.3	52.2	58.7	59.9	11.1	6.0	7.0	7.5	8.7	8.6

OVINE MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	8,760	11,263	11,427	11,754	12,057	12,446	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	2,390	3,034	3,004	2,936	2,948	2,991	27.3	26.9	26.3	25.0	24.4	24.0
Developing countries	6,360	8,229	8,423	8,818	9,109	9,455	72.7	73.1	73.7	75.0	75.6	76.0
CHINA (MAINLAND)	1,371	2,754	2,950	3,199	3,428	3,665	15.7	24.4	25.8	27.2	28.4	29.4
EU (15)	195	1,357	1,242	1,273	1,300	1,313	2.2	12.0	10.9	10.8	10.8	10.5
INDIA	624	684	696	698	701	703	7.1	6.1	6.1	5.9	5.8	5.6
PAKISTAN	595	503	519	531	546	559	6.8	4.5	4.5	4.5	4.5	4.5
C.I.S (12)	942	512	503	516	519	526	10.8	4.5	4.4	4.4	4.3	4.2
IRAN ISLAMIC REP.	391	436	444	450	455	461	4.5	3.9	3.9	3.8	3.8	3.7
AUSTRALIA	434	378	422	361	311	319	5.0	3.4	3.7	3.1	2.6	2.6
TURKEY	359	373	351	332	323	318	4.1	3.3	3.1	2.8	2.7	2.6
NIGERIA	178	234	229	239	241	242	2.0	2.1	2.0	2.0	2.0	1.9
ALGERIA	178	182	178	195	203	218	2.0	1.6	1.6	1.7	1.7	1.8
OTHERS	3,484	3,850	3,895	3,961	4,030	4,122	39.8	34.2	34.1	33.7	33.4	33.1

OVINE MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Ov.Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	1.6	1.9	1.9	1.9	1.9	2.0	5.6	4.8	4.8	4.8	4.8	4.9
Developed countries	1.9	2.3	2.3	2.3	2.3	2.3	3.7	3.0	2.9	2.7	2.7	2.8
Developing countries	1.5	1.7	1.7	1.8	1.8	1.9	6.9	6.3	6.3	6.3	6.4	6.5
NEW ZEALAND	38.5	40.8	60.3	47.1	50.3	50.7						
ICELAND	29.7	29.9	25.1	25.1	24.3	24.1						
TONGA	35.1	29.5	26.5	25.0	21.3	20.2						
KUWAIT	16.1	20.3	17.9	18.7	18.8	18.5						
AUSTRALIA	24.7	20.0	22.2	18.7	16.0	16.3						
QATAR	19.5	15.8	19.6	21.4	22.3	22.0						
SAMOA	18.3	8.9	13.7	14.7	12.2	11.2						
UNIT. ARAB EMIR.	24.2	16.5	15.1	16.8	16.6	17.2						
FIJI	15.6	15.0	12.8	11.8	12.9	12.8						
URUGUAY	16.8	10.3	12.5	12.5	12.8	13.1						

PIG MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993 %	2000 %	2001 %	2002 %	2003 %	2004 %
WORLD	58,550	89,497	91,178	94,185	96,150	97,726	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	20,190	37,643	37,315	38,175	38,638	38,579	34.5	42.1	40.9	40.5	40.2	39.5
Developing countries	38,361	51,853	53,863	56,010	57,513	59,147	65.5	57.9	59.1	59.5	59.8	60.5
CHINA (MAINLAND)	28,544	40,314	41,845	43,266	44,600	45,940	48.8	45.0	45.9	45.9	46.4	47.0
EU (15)	0	17,679	17,675	18,004	17,986	17,800	0.0	19.8	19.4	19.1	18.7	18.2
UNITED STATES	7,751	8,597	8,691	8,930	9,076	9,302	13.2	9.6	9.5	9.6	9.4	9.5
C.I.S (12)	4,113	2,816	2,703	2,759	2,853	2,917	7.0	3.1	3.0	2.9	3.0	3.0
BRAZIL	1,250	1,888	1,968	2,100	2,100	2,050	2.1	2.1	2.2	2.2	2.2	2.1
VIET NAM	878	1,409	1,515	1,654	1,795	1,900	1.5	1.6	1.7	1.8	1.9	1.9
POLAND	1,903	1,923	1,849	2,023	2,200	2,050	3.3	2.1	2.0	2.1	2.3	2.1
MEXICO	822	1,030	1,058	1,070	1,084	1,135	1.4	1.2	1.2	1.1	1.1	1.2
CANADA	1,194	1,641	1,729	1,854	1,910	1,920	2.0	1.8	1.9	2.0	2.0	2.0
JAPAN	1,440	1,271	1,242	1,244	1,260	1,270	2.5	1.4	1.4	1.3	1.3	1.3
OTHERS	10,656	10,930	10,903	11,281	11,286	11,442	18.2	12.2	12.0	12.0	11.7	11.7

PIG MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	1,807.4	3,282.0	3,475.4	4,107.7	4,185.3	4,273.3	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	1,434.8	2,075.8	2,349.2	2,850.1	2,712.7	2,730.8	79.4	63.2	67.6	69.4	64.8	63.9
Developing countries	372.6	1,206.2	1,126.2	1,257.6	1,472.6	1,542.5	20.6	36.8	32.4	30.6	35.2	36.1
JAPAN	496.1	889.8	961.4	1,046.0	890.0	1,000.0	27.5	27.1	27.7	25.5	21.3	23.4
C.I.S (12)	373.7	267.6	437.2	670.6	688.7	522.8	20.7	8.2	12.6	16.3	14.1	12.2
UNITED STATES	326.2	435.6	428.0	480.2	532.0	507.0	18.1	13.3	12.3	11.7	12.7	11.9
MEXICO	92.9	245.6	262.6	288.9	340.0	345.0	5.1	7.5	7.6	7.0	8.1	8.1
HONG KONG	94.7	225.9	238.8	247.8	275.0	300.0	5.2	6.9	6.9	6.0	6.6	7.0
KOREA, REP.	6.0	172.3	125.3	155.4	153.0	170.0	0.3	5.2	3.6	3.8	3.7	4.0
CANADA	25.3	72.6	93.6	94.8	97.0	105.0	1.4	2.2	2.7	2.3	2.3	2.5
ARGENTINA	28.6	62.8	58.0	11.8	45.0	25.0	1.6	1.9	1.7	0.3	1.1	0.6
POLAND	59.3	40.6	22.4	50.0	35.0	35.0	3.3	1.2	0.6	1.2	0.8	0.8
SLOVENIA	24.9	15.7	24.9	25.8	30.0	20.0	1.4	0.5	0.7	0.6	0.7	0.5
OTHERS	279.7	853.6	823.1	1,036.5	1,199.6	1,243.6	15.6	26.0	23.7	25.2	28.7	29.1

PIG MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	1,894.8	3,226.5	3,293.8	3,809.2	4,186.5	4,271.3	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	1,373.1	2,748.3	2,547.9	2,746.4	3,003.2	3,162.1	72.5	85.2	77.4	72.1	71.7	74.0
Developing countries	521.7	478.1	745.9	1,062.8	1,183.3	1,109.1	27.5	14.8	22.6	27.9	28.3	26.0
EU (15) (excl. intra-trade)	690.9	1,187.8	910.7	990.7	985.0	950.0	36.5	36.8	27.6	26.0	23.5	22.2
CANADA	274.5	595.7	659.1	772.5	900.0	975.0	14.5	18.5	20.0	20.3	21.5	22.8
UNITED STATES	182.2	580.1	628.9	652.6	696.0	788.0	9.6	18.0	19.1	17.1	16.6	18.4
BRAZIL	47.8	153.3	297.2	511.4	530.0	320.0	2.5	4.8	9.0	13.4	12.7	7.5
CHINA (MAINLAND)	169.9	139.8	213.7	290.4	380.0	470.0	9.0	4.3	6.5	7.6	9.1	11.0
HUNGARY	72.2	150.6	126.9	114.3	115.0	120.0	3.8	4.7	3.9	3.0	2.7	2.8
AUSTRALIA	7.8	41.0	55.6	65.6	65.0	64.0	0.4	1.3	1.7	1.7	1.6	1.5
MEXICO	4.3	56.3	58.9	61.0	60.0	75.0	0.2	1.7	1.8	1.6	1.4	1.8
POLAND	13.2	117.9	74.9	54.9	140.0	140.0	0.7	3.7	2.3	1.4	3.3	3.3
KOREA, REP.	13.7	30.0	40.0	20.7	22.0	25.0	0.7	0.9	1.2	0.5	0.5	0.6
OTHERS	418.2	174.0	228.0	275.2	293.5	344.3	22.1	5.4	6.9	7.2	7.0	8.1

PIG MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	58,495	90,200	91,319	94,286	96,210	97,845	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	20,284	37,733	37,054	38,173	38,398	38,240	34.7	41.8	40.6	40.5	39.9	39.1
Developing countries	38,212	52,468	54,265	56,113	57,812	59,606	65.3	58.2	59.4	59.5	60.1	60.9
CHINA (MAINLAND)	28,374	40,340	41,746	43,151	44,400	45,655	48.5	44.7	45.7	45.8	46.1	46.7
EU (15)	-569	17,291	16,828	17,045	17,101	16,922	-1.0	19.2	18.4	18.1	17.8	17.3
UNITED STATES	7,884	8,457	8,464	8,759	8,912	9,053	13.5	9.4	9.3	9.3	9.3	9.3
C.I.S (12)	4,448	3,061	3,107	3,393	3,406	3,401	7.6	3.4	3.4	3.6	3.5	3.5
JAPAN	1,935	2,124	2,158	2,269	2,129	2,289	3.3	2.4	2.4	2.4	2.2	2.3
POLAND	1,907	1,870	1,803	1,985	2,119	1,968	3.3	2.1	2.0	2.1	2.2	2.0
VIET NAM	858	1,397	1,488	1,642	1,790	1,890	1.5	1.5	1.6	1.7	1.9	1.9
BRAZIL	1,203	1,714	1,697	1,589	1,670	1,730	2.1	1.9	1.9	1.7	1.6	1.8
PHILIPPINES	731	1,047	1,093	1,372	1,188	1,214	1.2	1.2	1.2	1.5	1.2	1.2
CANADA	945	1,116	1,152	1,167	1,121	1,050	1.6	1.2	1.3	1.2	1.2	1.1
OTHERS	10,778	11,783	11,783	11,915	12,472	12,674	18.4	13.1	12.9	12.6	13.0	13.0

PIG MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Pig Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	10.6	14.9	14.9	15.2	15.3	15.4	37.2	38.6	38.4	38.2	38.4	38.6
Developed countries	16.1	29.1	28.5	29.3	29.4	29.2	31.1	36.8	35.6	35.6	35.7	35.4
Developing countries	9.0	11.0	11.2	11.5	11.6	11.8	41.5	40.0	40.5	40.3	40.5	41.0
CYPRUS	53.8	63.7	62.1	62.9	63.4	64.0						
HONG KONG	39.2	50.1	51.2	51.7	52.3	54.8						
POLAND	49.6	48.2	46.5	51.1	54.5	50.6						
HUNGARY	52.0	50.8	43.7	49.9	45.9	44.5						
EU (15)	-1.5	46.1	44.8	45.3	45.6	45.0						
CHINA (TAIWAN PROV.)	43.1	43.2	43.3	42.2	42.0	42.8						
CANADA	32.7	35.8	36.6	36.8	35.0	32.5						
SWITZERLAND	37.6	32.8	32.9	33.2	33.1	33.7						
SINGAPORE	33.0	25.4	25.1	25.7	29.6	32.0						
PARAGUAY	27.7	27.1	26.9	15.2	15.4	16.6						

POULTRY MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000 %	2001 %	2002 %	2003 %	2004 %
WORLD	40,784	68,963	71,473	74,591	76,072	77,122	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	19,270	32,629	33,736	34,915	35,038	35,801	47.2	47.3	47.2	46.8	46.1	46.4
Developing countries	21,515	36,334	37,737	39,676	41,035	41,321	52.8	52.7	52.8	53.2	53.9	53.6
UNITED STATES	12,440	16,416	16,813	17,516	17,700	18,200	30.5	23.8	23.5	23.5	23.3	23.6
CHINA (MAINLAND)	5,736	12,075	12,103	12,620	13,150	13,150	14.1	17.5	16.9	16.9	17.3	17.1
EU (15)	0	8,801	9,018	8,927	8,615	8,700	0.0	12.8	12.6	12.0	11.3	11.3
BRAZIL	3,235	6,125	6,395	7,229	7,387	7,835	7.9	8.9	8.9	9.7	9.7	10.2
MEXICO	1,071	1,863	1,976	2,123	2,182	2,300	2.6	2.7	2.8	2.8	2.9	3.0
C.I.S (12)	1,996	1,134	1,300	1,463	1,621	1,723	4.9	1.6	1.8	2.0	2.1	2.2
THAILAND	1,056	1,194	1,336	1,413	1,413	1,000	2.6	1.7	1.9	1.9	1.9	1.3
JAPAN	1,318	1,195	1,216	1,229	1,218	1,200	3.2	1.7	1.7	1.6	1.6	1.6
CANADA	773	1,064	1,110	1,111	1,091	1,100	1.9	1.5	1.6	1.5	1.4	1.4
ARGENTINA	713	1,000	993	973	975	980	1.7	1.5	1.4	1.3	1.3	1.3
OTHERS	12,447	18,096	19,213	19,987	20,720	20,934	30.5	26.2	26.9	26.8	27.2	27.1

POULTRY MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	2,710.1	7,362.9	7,720.0	7,843.2	7,859.4	7,582.3	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	1,134.4	3,381.3	3,822.3	3,969.0	3,903.3	3,588.5	41.9	45.9	49.5	50.6	49.7	47.3
Developing countries	1,575.7	3,981.6	3,897.7	3,874.2	3,956.1	3,993.8	58.1	54.1	50.5	49.4	50.3	52.7
C.I.S (12)	196.2	1,439.3	1,646.9	1,671.0	1,485.4	1,371.5	7.2	19.5	21.3	21.3	18.9	18.1
JAPAN	436.3	807.3	807.3	859.7	810.0	650.0	16.1	11.0	10.5	11.0	10.3	8.6
HONG KONG	362.7	1,088.5	966.6	835.2	700.0	750.0	13.4	14.8	12.5	10.6	8.9	9.9
EU (15) (excl. intra-trade)	201.0	384.9	669.0	531.0	750.0	660.0	7.4	5.2	8.7	8.0	9.5	8.7
CHINA (MAINLAND)	99.7	850.3	707.2	574.5	570.0	430.0	3.7	11.5	9.2	7.3	7.3	5.7
MEXICO	192.4	362.0	388.4	399.3	436.0	450.0	7.1	4.9	5.0	5.1	5.5	5.9
SAUDI ARABIA	170.0	350.0	403.0	395.0	405.0	410.0	6.3	4.8	5.2	5.0	5.2	5.4
CANADA	68.6	127.8	132.0	147.3	150.0	155.0	2.5	1.7	1.7	1.9	1.9	2.0
UNIT. ARAB EMIR.	75.0	110.9	131.0	133.4	138.0	140.0	2.8	1.5	1.7	1.7	1.8	1.8
LATVIA	0.4	154.0	58.9	61.0	63.0	65.0	0.0	2.1	0.8	0.8	0.8	0.9
OTHERS	907.9	1,688.0	1,809.7	2,135.8	2,351.9	2,500.8	33.5	22.9	23.4	27.2	29.9	33.0

POULTRY MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	3,020.9	7,298.8	7,843.5	7,826.4	7,924.8	7,587.2	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	1,942.4	4,451.2	4,654.1	4,232.0	4,038.9	3,848.8	64.3	61.0	58.1	54.1	51.0	50.7
Developing countries	1,078.5	2,847.6	3,289.4	3,594.4	3,885.8	3,738.4	35.7	39.0	41.9	45.9	49.0	49.3
UNITED STATES	1,090.6	2,911.8	3,171.4	2,686.9	2,757.0	2,480.0	36.1	39.9	40.4	34.3	34.8	32.7
BRAZIL	526.2	964.8	1,343.6	1,726.3	2,100.0	2,300.0	17.4	13.2	17.1	22.1	26.5	30.3
EU (15) (excl. intra-trade)	643.2	1,019.6	961.3	1,086.8	800.0	850.0	21.3	14.0	12.3	13.9	10.1	11.2
HONG KONG	169.7	812.4	692.9	588.0	495.0	470.0	5.6	11.1	8.8	7.5	6.2	6.2
CHINA (MAINLAND)	113.6	548.9	580.8	560.3	500.0	425.0	3.8	7.5	7.4	7.2	6.3	5.6
THAILAND	177.6	395.6	511.3	552.0	585.0	325.0	5.9	5.4	6.5	7.1	7.4	4.3
HUNGARY	77.4	121.8	131.9	134.0	120.0	140.0	2.6	1.7	1.7	1.7	1.5	1.8
CANADA	14.8	84.3	97.5	114.5	100.0	105.0	0.5	1.2	1.2	1.5	1.3	1.4
POLAND	15.0	49.0	61.5	44.6	77.0	85.0	0.5	0.7	0.7	0.6	1.0	1.1
LATVIA	0.1	154.0	20.0	30.0	30.0	30.0	0.0	2.1	0.3	0.4	0.4	0.4
OTHERS	192.5	236.5	281.2	303.1	360.8	377.2	6.4	3.2	3.6	3.9	4.6	5.0

POULTRY MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	40,398	68,934	71,311	74,473	76,106	77,215	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	18,391	31,491	32,938	34,563	35,022	35,610	45.5	45.7	46.2	46.4	46.0	46.1
Developing countries	22,007	37,444	38,372	39,910	41,084	41,605	54.5	54.3	53.8	53.6	54.0	53.9
UNITED STATES	11,303	13,529	13,710	14,798	15,037	15,774	28.0	19.6	19.2	19.9	19.8	20.4
CHINA (MAINLAND)	5,722	12,376	12,229	12,634	13,220	13,155	14.2	18.0	17.1	17.0	17.4	17.0
EU (15)	-442	8,166	8,725	8,471	8,565	8,510	-1.1	11.8	12.2	11.4	11.3	11.0
BRAZIL	2,709	5,160	5,048	5,503	5,288	5,535	6.7	7.5	7.1	7.4	6.9	7.2
C.I.S (12)	2,191	2,541	2,821	3,117	3,125	3,132	5.4	3.7	4.0	4.2	4.1	4.1
MEXICO	1,261	2,214	2,354	2,516	2,612	2,744	3.1	3.2	3.3	3.4	3.4	3.6
JAPAN	1,749	1,977	2,037	2,068	2,043	1,846	4.3	2.9	2.9	2.8	2.7	2.4
CANADA	825	1,106	1,133	1,143	1,147	1,150	2.0	1.6	1.6	1.5	1.5	1.5
MALAYSIA	641	801	816	878	933	938	1.6	1.2	1.1	1.2	1.2	1.2
THAILAND	878	792	843	821	809	706	2.2	1.1	1.2	1.1	1.1	0.9
OTHERS	13,561	20,271	21,595	22,524	23,326	23,725	33.6	29.4	30.3	30.2	30.6	30.7

POULTRY MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Poul.Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	7.3	11.4	11.6	12.0	12.1	12.2	25.7	29.5	30.0	30.2	30.4	30.4
Developed countries	14.6	24.3	25.4	26.5	26.8	27.2	28.2	30.7	31.7	32.2	32.6	33.0
Developing countries	5.2	7.9	7.9	8.1	8.3	8.2	23.9	28.6	28.7	28.7	28.8	28.6
QATAR	32.9	47.3	53.6	51.6	54.1	61.1						
ISRAEL	43.4	64.5	69.2	69.2	67.0	66.1						
UNIT. ARAB EMIR.	31.2	56.6	63.9	58.7	59.8	64.1						
KUWAIT	37.6	46.4	52.7	47.0	47.1	49.4						
UNITED STATES	43.2	48.6	48.9	52.4	52.9	55.1						
SINGAPORE	36.2	47.6	45.3	46.1	49.2	48.4						
HONG KONG	45.2	49.5	47.7	43.3	36.8	46.7						
CYPRUS	37.2	43.8	44.9	41.6	39.4	40.6						
VENEZUELA	17.6	27.8	35.5	36.1	35.5	35.3						
BRAZIL	17.5	30.3	29.3	31.6	30.0	31.0						

OTHER MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993 %	2000 %	2001 %	2002 %	2003 %	2004 %
WORLD	3,051	4,282	4,503	4,493	4,452	4,456	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	695	1,582	1,597	1,586	1,554	1,531	22.8	37.0	35.5	35.3	34.9	34.4
Developing countries	2,356	2,700	2,906	2,907	2,898	2,925	77.2	63.0	64.5	64.7	65.1	65.6
CHINA (MAINLAND)	573	797	976	971	965	960	18.8	18.6	21.7	21.6	21.7	21.5
EU (15)	0	927	947	921	900	880	0.0	21.6	21.0	20.5	20.2	19.7
UNITED STATES	257	237	234	234	222	220	8.4	5.5	5.2	5.2	5.0	4.9
CONGO, DEM. REP.	126	144	144	144	144	149	4.1	3.4	3.2	3.2	3.2	3.3
INDIA	131	138	140	140	140	140	4.3	3.2	3.1	3.1	3.2	3.1
ETHIOPIA	127	126	128	128	128	128	4.2	2.9	2.8	2.8	2.9	2.9
ARGENTINA	108	117	117	118	118	113	3.5	2.7	2.6	2.6	2.7	2.5
NIGERIA	100	100	100	100	100	100	3.3	2.3	2.2	2.2	2.2	2.2
GHANA	90	90	90	90	90	90	2.9	2.1	2.0	2.0	2.0	2.0
MEXICO	97	83	83	83	85	87	3.2	1.9	1.8	1.8	1.9	2.0
OTHERS	1,443	1,523	1,544	1,564	1,559	1,589	47.3	35.6	34.3	34.8	35.0	35.7

OTHER MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	274.5	267.0	414.3	372.1	370.0	374.4	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	214.5	195.9	323.6	247.6	259.4	260.8	7.0	4.6	7.2	6.5	5.8	5.9
Developing countries	60.0	71.1	90.8	124.5	110.6	113.6	2.0	1.7	2.0	2.8	2.5	2.5
EU (15) (excl. intra-trade)	159.3	132.1	260.4	178.1	180.0	180.0	58.0	49.5	62.9	47.9	48.7	48.1
MEXICO	15.7	36.5	51.2	55.0	55.0	55.0	5.7	13.7	12.4	14.8	14.9	14.7
C.I.S (12)	1.2	25.0	22.5	30.0	39.8	40.7	0.4	9.4	5.4	8.1	10.8	10.9
SWITZERLAND	11.5	11.3	12.6	12.1	11.8	11.9	4.2	4.2	3.0	3.2	3.2	3.2
JAPAN	33.5	14.3	14.0	10.7	11.0	11.0	12.2	5.3	3.4	2.9	3.0	2.9
KOREA, REP	1.1	3.8	4.6	5.0	5.0	5.0	0.4	1.4	1.1	1.3	1.4	1.3
HONG KONG	6.7	5.6	4.7	4.0	4.0	4.0	2.5	2.1	1.1	1.1	1.1	1.1
CANADA	1.0	2.0	2.4	3.1	3.0	3.0	0.3	0.8	0.6	0.8	0.8	0.8
CZECK, REP	0.8	2.1	2.5	2.5	3.0	3.2	0.3	0.8	0.6	0.7	0.8	0.8
SAUDI ARABIA	1.0	2.9	1.0	1.5	1.5	1.5	0.4	1.1	0.2	0.4	0.4	0.4
OTHERS	42.7	31.5	38.3	70.1	55.9	59.1	15.5	11.8	9.3	18.8	15.1	15.8

OTHER MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	261.6	236.3	270.0	290.1	272.2	278.6	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	146.1	123.5	132.4	110.1	108.1	108.9	4.8	2.9	2.9	2.4	2.4	2.4
Developing countries	115.5	112.8	137.6	180.0	164.1	169.6	3.8	2.6	3.1	4.0	3.7	3.8
CHINA (MAINLAND)	39.4	44.6	56.3	60.0	65.0	65.0	15.1	18.9	20.9	20.7	23.9	23.3
ARGENTINA	38.2	32.2	32.1	37.7	38.0	40.0	14.6	13.6	11.9	13.0	14.0	14.4
UNITED STATES	44.9	36.1	40.8	21.8	22.0	22.0	17.2	15.3	15.1	7.5	8.1	7.9
AUSTRALIA	10.6	18.4	20.0	20.0	20.0	20.0	4.1	7.8	7.4	6.9	7.3	7.2
NEW ZEALAND	15.2	17.5	19.1	19.0	19.0	19.0	5.8	7.4	7.1	6.5	7.0	6.8
BRAZIL	15.7	15.1	18.7	19.0	19.0	19.0	6.0	6.4	6.9	6.5	7.0	6.8
EU (15) (excl. intra-trade)	16.1	5.6	6.4	6.2	6.0	6.0	6.1	2.4	2.4	2.1	2.2	2.2
CANADA	18.8	15.1	15.7	13.3	13.0	13.0	7.2	6.4	5.8	4.6	4.8	4.7
POLAND	11.9	12.7	9.8	10.0	10.0	10.0	4.5	5.4	3.6	3.4	3.7	3.6
HUNGARY	16.6	5.3	7.3	7.3	7.0	7.0	6.3	2.2	2.7	2.5	2.6	2.5
OTHERS	34.2	33.7	43.8	75.8	53.2	57.5	13.1	14.3	16.2	26.1	19.6	20.6

OTHER MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	3,062	4,313	4,647	4,575	4,550	4,552	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	761	1,655	1,788	1,723	1,705	1,683	25.0	38.6	39.7	38.4	38.3	37.8
Developing countries	2,301	2,658	2,859	2,851	2,845	2,869	75.4	62.1	63.5	63.6	63.9	64.4
EU (15)	143	1,053	1,201	1,093	1,074	1,054	4.7	24.4	25.8	23.9	23.6	23.2
CHINA (MAINLAND)	534	753	920	911	900	895	17.4	17.5	19.8	19.9	19.8	19.7
C.I.S (12)	210	203	203	231	245	239	6.8	4.7	4.4	5.1	5.4	5.3
UNITED STATES	214	206	198	218	206	204	7.0	4.8	4.3	4.8	4.5	4.5
CONGO, DEM. REP.	126	144	144	144	144	149	4.1	3.3	3.1	3.1	3.2	3.3
INDIA	131	138	140	140	140	140	4.3	3.2	3.0	3.1	3.1	3.1
MEXICO	111	117	132	136	138	140	3.6	2.7	2.8	3.0	3.0	3.1
SAUDI ARAB.	52	52	51	51	51	48	1.7	1.2	1.1	1.1	1.1	1.1
CZECH, REP	31	38	39	39	40	42	1.0	0.9	0.8	0.9	0.9	0.9
PERU	37	32	32	33	34	32	1.2	0.7	0.7	0.7	0.8	0.7
OTHERS	1,474	1,576	1,587	1,578	1,576	1,608	48.1	36.5	34.1	34.5	34.6	35.3

OTHER MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Oth.Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	0.6	0.7	0.8	0.7	0.7	0.7	1.9	1.8	2.0	1.9	1.8	1.8
Developed countries	0.6	1.3	1.4	1.3	1.3	1.3	1.2	1.6	1.7	1.6	1.6	1.6
Developing countries	0.5	0.6	0.6	0.6	0.6	0.6	2.5	2.0	2.1	2.0	2.0	2.0
UNIT. ARAB EMIR.	7.7	6.4	6.3	6.1	6.0	6.5						
REUNION	6.0	5.9	6.0	6.1	6.0	6.1						
QATAR	2.7	2.7	2.5	3.6	3.0	3.0						
CYPRUS	1.2	1.7	1.9	1.7	1.8	1.8						
HONG KONG	1.9	1.6	1.5	1.4	1.3	1.3						
UNITED STATES	0.8	0.7	0.7	0.8	0.7	0.7						
SINGAPORE	0.0	0.3	0.9	0.8	0.8	0.9						
KUWAIT	0.4	0.4	0.4	0.2	0.2	0.2						

MEAT PRODUCTION

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	Million tons - CWE				Million tons - CWE				Million tons - CWE				Million tons - CWE				Million tons - CWE			
World	59.2	61.3	61.7	61.9	11.4	11.8	12.0	12.4	91.2	94.2	96.2	97.7	71.5	74.6	76.1	77.1	237.8	246.3	250.4	253.6
Africa	4.4	4.5	4.5	4.6	1.9	1.9	1.9	2.0	0.7	0.7	0.7	0.8	3.2	3.3	3.3	3.4	11.5	11.6	11.7	12.0
Egypt	0.6	0.6	0.6	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.7	1.4	1.5	1.5	1.5
Nigeria	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.0	1.1	1.1	1.1
South Africa	0.6	0.6	0.6	0.6	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.8	0.8	0.9	0.9	1.7	1.7	1.7	1.7
Others	2.9	3.0	3.0	3.1	1.4	1.4	1.4	1.5	0.4	0.5	0.5	0.5	1.6	1.6	1.6	1.7	7.3	7.4	7.5	7.7
North & Central America	15.2	15.7	15.3	15.1	0.2	0.2	0.2	0.2	11.8	12.2	12.4	12.7	20.9	21.8	22.0	22.6	48.5	50.2	50.3	51.0
Canada	1.2	1.3	1.2	1.6	0.0	0.0	0.0	0.0	1.7	1.9	1.9	1.9	1.1	1.1	1.1	1.1	4.1	4.3	4.3	4.5
Mexico	1.4	1.5	1.5	1.5	0.1	0.1	0.1	0.1	1.1	1.1	1.1	1.1	2.0	2.1	2.2	2.3	4.6	4.8	4.9	5.1
USA	12.0	12.4	12.0	11.6	0.1	0.1	0.1	0.1	8.7	8.9	9.1	9.3	16.8	17.5	17.7	18.2	37.8	39.2	39.1	39.3
Others	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.4	1.0	1.0	1.0	1.0	1.9	1.9	2.0	2.0
South America	11.5	12.3	12.7	12.8	0.3	0.3	0.3	0.4	3.1	3.3	3.3	3.3	10.3	11.2	11.4	11.9	25.5	27.4	28.0	28.6
Argentina	2.5	2.7	2.8	2.7	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	1.0	1.0	1.0	1.0	3.8	4.1	4.2	4.0
Brazil	6.7	7.1	7.4	7.6	0.1	0.1	0.1	0.1	2.0	2.1	2.1	2.1	6.4	7.2	7.4	7.8	16.2	16.6	17.0	17.6
Colombia	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.6	0.6	0.6	0.6	1.4	1.4	1.4	1.4
Uruguay	0.3	0.4	0.4	0.6	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.5	0.5	0.6	0.6
Others	1.4	1.4	1.4	1.4	0.1	0.1	0.1	0.1	0.8	0.8	0.9	0.9	2.3	2.3	2.4	2.4	4.6	4.7	4.8	5.0
Asia 2/	13.8	14.4	14.8	15.4	6.3	6.7	6.9	7.2	50.2	52.2	53.6	55.2	23.8	24.7	25.7	25.2	95.5	99.3	102.4	104.4
China, Mainland	5.5	5.8	6.1	6.5	2.9	3.2	3.4	3.6	41.8	43.3	44.6	45.9	12.1	12.6	13.2	13.2	63.3	66.9	68.2	70.2
India	2.9	2.9	3.0	3.1	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	1.3	1.4	1.6	1.8	5.6	5.8	6.0	6.3
Japan	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	1.2	1.2	1.3	1.3	1.2	1.2	1.2	1.2	2.9	3.0	3.0	3.0
Pakistan	0.9	0.9	1.0	1.0	0.5	0.5	0.5	0.6	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.4	1.8	1.8	1.9	1.9
Thailand	0.2	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.3	1.4	1.4	1.0	2.1	2.2	2.2	1.8
Others	3.8	3.9	4.0	4.0	2.1	2.3	2.2	2.3	6.1	6.5	6.6	6.8	7.6	7.6	7.9	7.8	19.9	20.7	21.0	21.2
Europe 3/	11.5	11.7	11.7	11.4	1.4	1.4	1.5	1.5	24.8	25.3	25.5	25.2	12.5	12.8	12.8	13.0	51.3	52.4	52.6	52.3
EU (15)	7.4	7.5	7.4	7.3	1.0	1.1	1.1	1.1	17.7	18.0	18.0	17.8	9.0	8.9	8.6	8.7	36.0	36.4	36.0	35.8
Other West Europe	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.7	0.8	0.8	0.8
Hungary	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.1	1.1
Poland	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	1.8	2.0	2.2	2.1	0.7	0.9	0.9	0.9	2.9	3.2	3.4	3.2
Romania	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.6	0.5	0.5	0.5	0.3	0.3	0.4	0.4	1.0	1.0	1.1	1.1
Other East Europe	0.6	0.4	0.4	0.4	0.1	0.1	0.1	0.1	1.4	1.2	1.2	1.2	0.6	0.7	0.8	0.8	2.6	2.6	2.6	2.6
Oceania	2.7	2.6	2.6	2.6	1.3	1.2	1.1	1.1	0.5	0.5	0.5	0.5	0.8	0.8	0.9	0.9	5.4	5.2	5.2	5.2
Australia	2.1	2.0	1.9	1.9	0.7	0.7	0.6	0.6	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7	3.9	3.8	3.6	3.6
New Zealand	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	1.3	1.3	1.4	1.4
CIS (12)	3.8	4.0	4.0	3.9	0.5	0.5	0.5	0.5	2.7	2.8	2.9	2.9	1.3	1.5	1.6	1.7	8.4	8.9	9.2	9.3
Developed countries	29.5	30.2	29.7	29.1	3.3	3.2	3.2	3.2	37.3	38.2	38.6	38.6	33.7	34.9	35.0	35.8	105.4	108.1	108.2	108.2
Developing countries	29.7	31.1	32.0	32.8	8.2	8.6	8.8	9.2	53.9	56.0	57.5	59.1	37.7	39.7	41.0	41.3	132.4	138.2	142.2	145.4

1/ Including Other Meat
2/ Including CIS countries in Asia
3/ Including Baltic States & CIS countries in Europe.

MEAT IMPORTS

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE			
World 2/	5430.5	5833.9	5986.4	5495.7	689.0	686.6	711.9	742.9	3475.4	4107.7	4185.3	4273.3	7720.0	7843.2	7859.4	7582.3	17729.2	18843.6	19113.0	18468.6
Africa	208.8	288.0	272.0	268.8	47.9	30.3	28.4	32.4	55.8	61.6	78.9	76.5	363.5	455.5	516.0	527.1	690.4	879.9	924.9	937.9
Angola	35.2	44.9	30.0	30.0	0.3	0.1	0.2	0.2	17.0	23.0	28.0	20.0	52.0	81.0	85.0	80.0	104.5	149.0	143.2	130.2
Egypt	97.6	142.3	130.0	130.0	2.0	0.7	1.0	1.0	0.0	0.1	0.1	0.1	4.4	5.4	7.0	7.0	104.1	148.8	136.5	138.5
South Africa	25.9	30.5	35.0	28.0	34.2	15.4	13.0	15.0	9.1	9.1	16.0	18.0	71.0	90.0	100.0	100.0	140.4	145.3	164.3	161.3
Others	50.1	70.3	77.0	80.8	11.5	14.1	14.2	16.2	29.7	29.3	34.8	38.4	236.1	279.2	324.0	340.1	341.4	436.7	479.0	608.0
North & Central America	2118.7	2208.1	2064.4	1993.1	146.1	149.8	162.7	170.6	863.9	937.9	1066.3	1059.2	820.3	913.7	997.5	1066.2	4011.7	4278.1	4359.5	4357.8
Canada	299.9	307.7	280.0	200.0	17.2	17.0	17.0	17.0	93.6	94.8	97.0	105.0	132.0	147.3	150.0	155.0	545.2	570.0	547.0	480.0
Mexico	399.0	459.2	425.0	300.0	48.9	47.0	55.0	60.0	262.6	288.9	340.0	345.0	388.4	399.3	436.0	450.0	1150.1	1249.3	1311.0	1210.0
USA	1352.5	1370.5	1281.0	1412.0	66.8	74.1	78.0	80.0	428.0	480.2	632.0	607.0	28.2	32.9	33.0	37.0	1880.0	1963.5	1930.0	2042.0
Others	67.4	70.7	78.4	81.1	13.1	11.7	12.7	13.6	79.7	74.0	97.3	102.2	271.6	334.2	378.5	424.2	436.4	495.3	571.5	625.8
South America	183.7	228.6	269.7	287.7	5.3	3.7	5.4	6.4	80.0	30.9	62.3	47.4	95.0	65.6	83.2	95.2	365.7	330.1	422.4	438.5
Argentina	13.6	7.1	12.0	10.0	1.1	1.0	1.0	1.0	58.0	11.8	45.0	25.0	26.7	1.2	10.0	15.0	99.6	21.2	68.2	51.2
Brazil	38.5	65.7	60.0	65.0	3.6	2.5	4.0	5.0	0.3	0.2	0.0	0.0	0.2	0.2	0.2	0.2	43.1	69.1	64.6	70.6
Chile	115.0	132.8	170.0	180.0	0.0	0.0	0.0	0.0	0.5	1.0	0.0	0.0	0.3	0.2	0.0	0.0	115.9	134.0	170.2	180.2
Others	16.6	23.0	27.7	32.7	0.6	0.2	0.4	0.4	21.2	17.8	17.3	22.4	67.8	64.0	73.0	80.0	107.1	105.8	119.4	136.5
Asia 3/	1867.5	1843.9	2092.4	1575.6	204.0	223.3	228.5	237.5	1624.1	1861.2	1808.4	1998.6	3753.3	3688.0	3584.9	3399.0	7483.4	7645.2	7744.6	7241.4
China , Mainland	5.6	15.0	18.0	8.0	25.4	34.9	32.0	30.0	115.1	175.1	180.0	185.0	707.2	574.5	570.0	430.0	853.7	799.9	800.4	653.4
China, Province of Taiwan	72.9	83.6	90.0	75.0	21.8	27.3	30.0	30.0	11.4	22.9	45.0	60.0	17.0	31.2	48.0	62.0	123.2	165.2	213.3	217.3
China, Hong Kong SAR	74.5	83.4	90.0	60.0	5.5	6.5	8.0	10.0	238.8	247.8	275.0	300.0	966.6	835.2	700.0	750.0	1290.1	1176.8	1077.0	1124.0
Japan	905.8	651.5	772.0	500.0	26.8	25.0	20.0	20.0	981.4	1046.0	890.0	1000.0	807.3	859.7	810.0	650.0	2715.2	2592.9	2503.0	2181.0
Korea, Rep. of	209.6	370.6	367.0	220.0	2.2	3.1	5.0	6.0	125.3	155.4	153.0	170.0	149.9	158.0	150.0	140.0	491.7	692.1	680.0	541.0
Saudi Arabia	36.8	65.0	80.0	60.0	45.3	47.0	47.0	47.0	2.8	3.0	3.0	3.0	403.0	395.0	405.0	410.0	488.9	511.4	536.5	511.5
Others	562.3	574.9	675.4	662.6	77.1	79.6	86.5	94.5	169.3	211.0	262.4	290.6	702.2	834.5	901.9	957.0	1520.6	1706.9	1934.5	2013.3
Europe 2/ 4/	1006.4	1216.9	1234.6	1320.5	235.6	238.1	241.3	245.6	785.5	1132.8	1070.0	994.0	2650.0	2682.6	2633.3	2449.3	4975.9	5497.1	5415.6	5247.0
EU (15) 2/	353.0	451.3	470.0	500.0	222.4	223.5	226.0	230.0	64.0	62.3	70.0	72.0	669.0	631.0	750.0	660.0	1568.8	1546.2	1696.0	1642.0
Other West Europe	19.5	25.8	29.0	33.0	8.5	8.9	9.0	9.0	14.6	15.3	20.0	26.0	49.6	48.4	52.3	57.3	106.3	111.7	123.4	138.5
Bulgaria	19.6	27.9	26.0	25.0	0.0	0.0	0.1	0.1	18.4	20.8	28.0	32.0	28.9	29.5	28.0	27.0	67.6	78.4	82.8	84.8
Poland	0.4	1.5	2.0	8.0	0.0	0.1	0.1	0.1	22.4	50.0	35.0	35.0	89.9	99.0	80.0	100.0	112.8	150.6	117.1	143.1
Romania	14.1	8.7	7.0	5.0	0.0	0.0	0.0	0.0	54.1	64.8	65.0	35.0	74.0	91.1	110.0	115.0	142.2	184.6	172.0	155.0
Other East Europe	50.4	73.8	87.2	96.0	1.0	1.3	1.6	1.9	160.0	203.5	244.0	239.0	125.7	157.1	190.0	201.0	341.3	440.6	527.3	542.7
Oceania	42.5	45.7	50.5	47.2	50.7	41.8	46.2	51.0	63.0	80.5	96.5	94.6	36.3	34.8	42.4	43.1	195.3	205.1	238.7	238.3
Australia	4.3	4.3	3.0	2.0	0.3	0.5	1.0	1.0	34.7	48.4	60.0	58.0	1.0	1.3	1.5	1.5	40.7	54.8	65.8	62.8
New Zealand	11.2	16.9	20.0	17.0	3.5	3.0	3.0	3.0	17.0	21.4	25.0	25.0	0.6	1.0	1.0	1.0	32.5	42.5	49.2	46.2
Papua New Guinea	10.7	7.7	10.0	10.0	29.3	21.5	25.0	30.0	1.1	1.0	1.0	1.0	0.1	0.4	0.4	0.4	41.3	31.2	37.1	41.4
CIS (12)	576.2	661.0	657.2	698.3	4.0	4.9	4.6	5.6	437.2	670.6	588.7	522.8	1646.9	1671.0	1485.4	1371.5	2686.8	3037.4	2775.7	2638.8
Russian Federation	535.7	614.8	600.0	640.0	3.4	4.3	4.0	4.0	405.7	640.0	550.0	480.0	1389.8	1380.8	1140.0	1050.0	2342.3	2668.8	2324.0	2204.0
Uzbekistan	5.0	6.0	7.0	8.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	22.0	30.0	40.0	50.0	31.0	37.0	49.9	61.2
Other CIS	35.6	40.2	50.2	50.3	0.6	0.6	0.6	1.6	30.5	29.5	37.7	41.8	235.1	260.2	305.4	271.5	313.4	331.6	401.8	373.7
Developed countries 2/	3715.0	3720.5	3756.9	3622.9	386.2	375.1	375.1	384.3	2349.2	2850.1	2712.7	2730.8	3822.3	3969.0	3903.3	3588.5	10596.2	11162.2	11007.3	10587.3
Developing countries	1715.5	2113.5	2229.5	1872.7	302.9	311.6	336.9	358.6	1126.2	1257.6	1472.6	1542.5	3897.7	3874.2	3956.1	3993.8	7133.0	7681.5	8105.6	7881.3

1/ Including Other Meat
2/ Excluding EU (15) Intra-trade
3/ Including CIS countries in Asia
4/ Including Baltic States & CIS countries in Europe.

MEAT EXPORTS

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	..... Thousand tons - CWE				..... Thousand tons - CWE				..... Thousand tons - CWE				..... Thousand tons - CWE				..... Thousand tons - CWE			
World 2/	5536.9	5947.8	6062.3	5609.0	715.8	699.3	677.2	696.1	3293.8	3809.2	4186.5	4271.3	7843.5	7826.4	7924.8	7587.2	17659.9	18572.7	19123.1	18442.0
Africa	62.3	51.3	47.1	46.3	12.0	15.8	16.9	15.6	2.7	6.0	5.2	6.7	20.4	23.5	24.7	27.5	111.3	131.2	115.8	121.0
Botswana	27.3	13.2	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.4	13.3	9.2	9.0
Namibia	25.9	23.3	20.0	18.0	6.6	6.3	6.0	6.0	0.6	0.6	0.6	1.0	0.0	0.1	0.7	0.7	33.7	31.5	28.5	27.1
Others	9.0	14.8	18.1	19.3	5.4	9.5	10.9	9.6	2.1	5.4	4.6	5.7	20.4	23.4	24.0	26.8	50.2	86.4	78.1	84.9
North & Central America	1620.6	1739.5	1577.1	856.2	3.9	3.7	3.5	3.5	1352.2	1491.1	1661.9	1844.5	3285.3	2812.1	2869.4	2599.6	6321.2	6084.6	6149.8	5341.6
Canada	542.3	679.5	375.0	550.0	0.3	0.3	0.4	0.4	659.1	772.5	900.0	975.0	97.5	114.5	100.0	105.0	1314.9	1480.0	1388.4	1643.4
Nicaragua	31.7	46.4	50.0	50.0	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.5	0.0	0.2	0.5	1.0	32.2	47.4	51.4	52.0
USA	1010.6	1071.9	1105.0	204.0	3.6	3.4	3.0	3.0	628.9	652.6	696.0	788.0	3171.4	2686.9	2757.0	2480.0	4855.3	4436.7	4583.0	3497.0
Others	35.9	41.7	47.1	52.2	0.0	0.0	0.1	0.1	64.0	65.9	65.5	81.1	16.4	10.6	12.0	13.6	118.8	120.4	127.0	149.3
South America	987.6	1282.2	1692.8	1974.2	15.5	12.5	16.6	18.6	331.3	595.8	630.3	435.3	1414.4	1790.1	2196.6	2400.6	2808.7	3753.6	4604.0	4899.1
Argentina	134.6	296.5	320.0	360.0	1.0	2.0	4.7	5.0	0.1	0.1	0.1	0.1	21.1	30.5	60.0	60.0	188.9	366.8	422.8	465.1
Brazil	645.0	767.9	1050.0	1230.0	0.1	0.1	0.1	0.1	297.2	511.4	530.0	320.0	1343.6	1726.3	2100.0	2300.0	2304.6	3014.7	3699.1	3869.1
Uruguay	141.0	204.8	265.0	295.0	9.0	5.8	6.5	7.2	0.0	0.0	0.0	0.0	0.5	0.9	0.0	0.0	157.6	217.5	276.5	307.2
Others	66.9	23.0	57.8	89.2	5.4	4.6	5.3	6.3	34.0	84.3	100.2	115.2	49.2	32.4	36.6	40.6	157.7	154.6	205.6	257.7
Asia 3/	341.2	394.1	449.6	501.4	12.9	13.8	17.9	19.7	351.9	398.0	485.5	589.3	1858.9	1798.2	1685.0	1328.6	2632.2	2679.2	2715.3	2516.8
China, Mainland	52.4	39.0	37.0	39.0	2.9	3.0	4.0	5.0	213.7	290.4	380.0	470.0	580.8	560.3	500.0	425.0	906.0	952.7	986.0	1004.0
India	243.8	298.6	350.0	400.0	3.5	5.0	6.0	7.0	0.8	1.1	1.0	1.0	0.4	2.0	5.0	10.0	248.5	306.8	362.0	418.0
Thailand	4.1	3.4	3.0	3.0	0.0	0.0	0.0	0.0	14.0	16.1	14.0	16.0	511.3	552.0	585.0	325.0	529.4	571.5	602.0	344.0
Others	40.9	53.1	59.6	59.4	6.6	5.9	7.9	7.7	123.5	90.3	90.5	102.3	766.4	683.9	595.0	568.6	948.3	848.2	765.2	750.7
Europe 2/ 4/	809.3	800.8	683.8	611.0	18.6	17.1	16.3	16.6	1199.6	1252.2	1338.0	1330.9	1237.8	1377.1	1120.9	1201.7	3294.5	3476.8	3186.9	3188.0
EU (15) 2/	547.0	480.7	380.0	310.0	3.8	3.4	2.0	2.0	910.7	990.7	985.0	950.0	961.3	1086.8	800.0	850.0	2429.2	2567.8	2173.0	2118.0
Other West Europe	2.2	3.3	4.0	4.0	1.7	2.1	2.5	2.6	2.5	1.7	2.0	2.0	0.3	0.5	0.6	0.6	7.3	8.3	9.9	9.9
Hungary	6.9	9.2	10.0	10.0	1.3	0.2	0.0	0.0	126.9	114.3	115.0	120.0	131.9	134.0	120.0	140.0	274.4	265.0	252.0	277.0
Poland	52.3	86.9	60.0	45.0	0.0	0.1	0.1	0.1	74.9	54.9	140.0	140.0	51.5	44.6	77.0	85.0	188.6	196.5	287.1	280.1
Romania	0.6	0.6	1.0	1.0	0.0	0.0	0.0	0.0	0.9	0.5	1.0	1.0	6.8	5.4	12.0	15.0	9.2	7.6	15.0	18.0
Other East Europe	47.2	35.2	23.7	29.7	4.7	3.3	3.3	3.3	163.1	149.1	156.7	172.6	170.1	172.6	162.3	180.1	385.1	370.4	355.0	394.5
Oceania	1716.0	1679.9	1611.9	1619.9	652.9	636.3	606.0	622.0	56.2	66.1	65.5	64.6	26.7	25.3	28.1	29.1	2492.0	2447.5	2351.3	2375.5
Australia	1265.5	1236.0	1130.0	1128.0	306.5	294.6	250.0	252.0	55.5	65.6	65.0	64.0	25.9	24.2	27.0	28.0	1673.5	1640.4	1492.0	1492.0
New Zealand	449.1	441.4	480.0	490.0	346.4	341.7	356.0	370.0	0.4	0.3	0.3	0.3	0.6	1.0	1.0	1.0	815.6	803.4	856.3	880.3
CIS (12)	157.1	190.5	212.6	218.6	1.3	1.2	1.4	1.7	18.9	37.2	36.0	39.0	11.7	21.1	21.0	23.0	220.2	250.8	271.6	282.9
Russian Federation	6.4	6.6	7.0	7.0	0.4	0.4	0.4	0.4	7.8	7.4	7.0	7.0	3.7	1.3	1.0	1.0	19.0	16.0	15.4	15.4
Ukraine	116.3	142.4	160.0	165.0	0.2	0.3	0.3	0.3	2.9	3.0	7.0	10.0	0.7	3.6	1.0	1.0	120.4	149.6	168.5	176.5
Other CIS	34.4	41.5	45.6	46.6	0.7	0.5	0.7	1.0	38.2	26.8	22.0	22.0	7.3	16.1	19.0	21.0	80.9	85.2	87.7	91.0
Developed countries 2/	4085.3	4139.2	3787.3	3000.6	675.5	657.2	625.8	642.2	2547.9	2746.4	3003.2	3162.1	4554.1	4232.0	4038.9	3848.8	11995.1	11885.0	11563.4	10762.6
Developing countries	1451.6	1808.5	2275.0	2608.4	40.3	42.0	51.4	53.9	745.9	1062.8	1183.3	1109.1	3289.4	3594.4	3885.8	3738.4	5664.8	6687.8	7559.7	7679.5

1/ Including Other Meat
2/ Excluding EU (15) intra-trade
3/ Including CIS countries in Asia
4/ Including Baltic States & CIS countries in Europe.

MEAT CONSUMPTION

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	Million tons - CWE				Million tons - CWE				Million tons - CWE				Million tons - CWE				Million tons - CWE			
World	58903	61201	61913	61786	11427	11754	12057	12446	91319	94286	96210	97845	71311	74473	76106	77215	237865	246591	250369	253628
Africa	4571	4695	4740	4817	1935	1932	1951	2004	780	802	820	829	3546	3705	3795	3902	12070	12390	12558	12827
Egypt	647	696	686	695	110	110	109	107	3	3	3	3	647	657	671	686	1539	1598	1604	1629
Nigeria	373	379	383	393	229	239	241	242	165	173	176	180	198	213	220	225	1065	1127	1130	1152
South Africa	597	605	613	697	174	160	163	170	119	119	127	131	880	929	941	959	1781	1826	1857	1870
Others	2954	3016	3058	3133	1423	1422	1438	1485	492	506	514	515	1821	1907	1963	2032	7685	7839	7966	8177
North & Central America	15692	16148	15868	16212	353	361	366	375	11259	11614	11831	11967	18471	19801	20198	21121	46186	48409	48490	49993
Canada	1001	1008	1138	1110	30	31	32	33	1152	1167	1121	1050	1133	1143	1147	1150	3353	3360	3440	3343
Mexico	1833	1901	1865	1810	124	127	136	142	1262	1298	1364	1405	2354	2515	2612	2744	5704	5977	6116	6241
USA	12288	12688	12296	12715	166	172	167	167	8464	8759	8912	9053	13710	14798	15037	15774	34849	36736	36478	37867
Others	570	551	569	577	33	31	32	33	382	390	434	459	1275	1344	1401	1453	2260	2337	2457	2542
South America	10750	11286	11283	11115	324	330	336	346	2895	2718	2765	2931	8965	9472	9301	9618	23023	23961	23847	24164
Argentina	2357	2411	2492	2300	59	59	58	58	254	227	261	245	1001	943	924	935	3728	3719	3815	3611
Brazil	6073	6444	6395	6405	114	119	122	124	1897	1589	1570	1730	5048	5503	5288	5635	12906	13661	13384	13806
Colombia	695	678	678	683	13	12	13	13	104	114	113	113	620	664	670	672	1440	1475	1483	1490
Venezuela	425	495	465	475	11	11	12	13	121	127	127	127	874	905	906	918	1422	1541	1512	1535
Others	1199	1262	1253	1252	127	129	132	138	719	662	694	716	1422	1458	1512	1558	3528	3565	3653	3723
Asia 2/	15381	15918	16529	16416	6516	6908	7158	7443	51445	53524	54914	56631	25761	26512	27606	27362	100494	104408	107549	109240
China, Mainland	5441	5822	6111	6469	2950	3199	3428	3665	41746	43151	44400	45655	12229	12634	13220	13155	63287	65717	68059	69839
India	2637	2608	2612	2660	696	698	701	703	594	611	629	639	1251	1399	1595	1740	5318	5456	5677	6882
Japan	1322	1256	1328	972	27	25	20	20	2158	2269	2129	2289	2037	2068	2043	1846	5637	5607	5491	5157
Korea, Rep	495	565	545	474	5	6	8	9	1013	1047	1295	1346	570	592	572	536	2040	2330	2428	2312
Philippines	381	340	383	400	34	37	39	41	1093	1372	1188	1214	632	675	702	717	2135	2468	2324	2385
Viet Nam	195	201	207	210	5	5	5	5	1488	1642	1790	1890	385	430	470	400	2091	2297	2491	2524
Others	4909	5126	5344	5231	2800	2938	2956	2999	3352	3432	3482	3599	8658	8713	9003	8968	19986	20533	21080	21141
Europe 3/	11425	12192	12448	12174	1594	1638	1692	1709	24442	25113	25327	24933	13767	14137	14316	14302	52903	54295	54717	54206
EU (15)	6940	7557	7720	7494	1242	1273	1300	1313	16828	17045	17101	16922	8725	8471	8565	8510	35166	35424	35540	35279
Other West Europe	245	253	261	270	47	47	46	46	371	370	373	381	151	159	168	178	842	856	869	900
Hungary	53	47	60	60	8	9	10	10	437	497	455	440	377	386	368	343	888	946	901	862
Poland	239	201	232	253	1	1	1	1	1803	1985	2119	1968	789	909	864	887	2863	3124	3204	3092
Romania	158	164	156	156	52	54	56	58	498	561	536	528	351	426	448	470	1091	1221	1210	1225
Other East Europe	534	486	516	511	87	91	116	116	1503	1359	1420	1377	662	804	928	948	2835	2792	3033	3000
Oceania	1082	959	1043	1049	706	586	554	570	494	512	549	551	799	844	888	908	3063	2991	3074	3067
Australia	856	764	809	824	422	361	311	319	354	369	401	400	631	664	694	710	2253	2216	2222	2204
New Zealand	179	151	187	174	235	185	200	203	64	68	71	71	116	129	135	140	567	547	604	604
CIS (12)	4186	4457	4479	4399	503	515	519	526	3107	3393	3406	3401	2821	3117	3125	3132	10915	11699	11734	11636
Developed countries	28836	29863	30010	29765	3004	2938	2948	2991	37054	38173	38398	38240	32938	34563	35022	35610	104041	107366	107595	108073
Developing countries	30067	31338	31903	32021	8423	8818	9109	9455	54265	56113	57812	59606	38372	39910	41084	41605	133824	139225	142774	145556

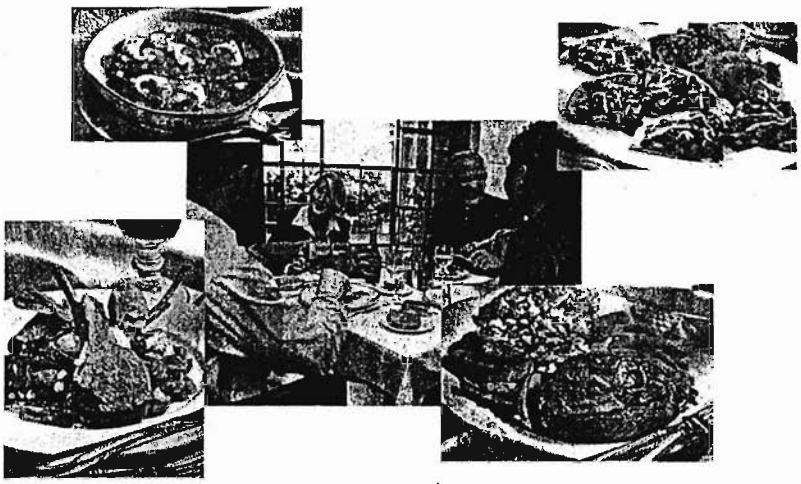
1/ Including Other Meat
2/ Including CIS countries in Asia
3/ Including Baltic States & CIS countries in Europe.

P/C MEAT CONSUMPTION

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	....kg per year....				....kg per year....				....kg per year....				....kg per year....				....kg per year....			
World	9.6	9.9	9.9	9.7	1.9	1.9	1.9	2.0	14.9	15.2	15.3	15.4	11.6	12.0	12.1	12.2	38.8	39.8	39.9	39.9
Africa	5.7	5.8	5.7	5.6	2.4	2.4	2.3	2.3	1.0	1.0	1.0	1.0	4.4	4.5	4.5	4.6	15.1	15.2	15.0	15.0
Egypt	9.3	9.8	9.5	9.5	1.6	1.6	1.5	1.5	0.0	0.0	0.0	0.0	9.3	9.3	9.3	9.4	22.1	22.5	22.2	22.2
South Africa	14.6	14.7	14.8	14.3	4.3	3.9	3.9	4.1	2.9	2.9	3.1	3.1	21.6	22.6	22.7	23.0	43.7	44.4	44.9	44.9
Sudan	10.6	10.6	10.4	10.4	8.6	8.3	8.2	8.5	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	22.9	22.5	22.2	22.5
Tunisia	6.4	5.4	6.1	6.3	6.8	5.9	6.0	6.1	0.0	0.0	0.0	0.0	12.1	11.9	11.8	12.3	26.3	24.4	24.8	25.5
North America	42.6	43.6	42.4	43.4	0.6	0.6	0.6	0.6	30.8	31.6	31.7	31.7	47.6	50.7	51.1	53.1	122.5	127.6	126.1	129.3
Canada	31.9	31.8	35.6	34.4	1.0	1.0	1.0	1.0	36.8	36.8	35.0	32.5	36.0	36.1	35.9	35.6	106.7	105.9	107.5	103.6
USA	43.8	44.9	43.2	44.4	0.6	0.6	0.6	0.6	30.2	31.0	31.3	31.6	48.9	52.4	52.9	55.1	124.3	130.0	128.2	132.2
Central America and Carr.,,	13.6	13.7	13.4	12.9	0.9	0.9	0.9	0.9	9.3	9.4	9.9	10.1	20.6	21.6	22.1	22.8	45.3	46.5	47.2	47.7
Dominican Rep.	8.3	8.3	8.6	8.8	0.1	0.1	0.1	0.1	7.5	7.6	8.2	8.4	24.6	21.7	19.9	18.9	40.5	37.8	36.8	36.2
Mexico	18.3	18.7	18.1	17.3	1.2	1.2	1.3	1.4	12.6	12.7	13.2	13.4	23.4	24.7	25.3	26.2	56.8	58.7	59.2	59.6
South America	30.6	31.7	31.3	30.4	0.9	0.9	0.9	0.9	8.3	7.6	7.7	8.0	25.6	26.6	25.8	26.3	65.6	67.3	66.1	66.1
Argentina	62.9	63.5	64.9	59.2	1.6	1.5	1.5	1.5	6.8	6.0	6.6	6.3	26.7	24.8	24.1	24.1	99.4	98.0	99.4	92.9
Brazil	35.3	37.0	36.2	35.9	0.7	0.7	0.7	0.7	9.9	9.1	8.9	9.7	29.3	31.6	30.0	31.0	74.9	78.4	75.8	77.3
Chile	21.6	21.3	22.7	23.2	0.7	0.7	0.7	0.8	17.5	17.2	18.1	17.9	23.7	22.5	23.0	23.4	64.1	61.8	64.9	65.6
Uruguay	52.4	62.0	52.5	49.2	12.6	12.5	12.8	13.1	9.6	8.0	8.2	9.6	16.0	15.8	16.2	16.3	90.7	98.7	90.8	89.4
Asia 2/	3.9	4.0	4.1	4.0	1.7	1.8	1.8	1.9	13.9	14.3	14.5	14.8	7.0	7.1	7.3	7.1	26.8	27.5	28.0	28.1
China , Mainland	4.3	4.6	4.8	5.0	2.3	2.5	2.7	2.8	33.0	33.8	34.6	35.3	9.7	9.9	10.3	10.2	50.0	51.5	53.0	54.0
China, Province of Taiwan	3.5	4.0	4.2	3.5	1.1	1.3	1.5	1.5	43.3	42.2	42.0	42.8	31.9	32.5	32.7	32.3	79.8	80.0	80.4	80.1
Japan	10.4	9.9	10.4	7.6	0.2	0.2	0.2	0.2	17.0	17.9	16.7	18.0	16.0	16.3	16.1	14.5	44.4	44.1	43.2	40.5
Korea, Rep.	10.5	11.9	11.4	9.8	0.1	0.1	0.2	0.2	21.5	22.0	27.0	27.9	12.1	12.5	11.9	11.1	43.2	49.0	50.7	47.9
Malaysia	6.3	6.5	6.8	7.0	0.7	0.6	0.7	0.8	8.2	9.8	8.7	8.8	36.0	38.1	39.8	39.4	51.3	55.0	56.1	56.0
West Europe	18.5	20.1	20.5	20.0	3.3	3.4	3.5	3.5	44.3	44.8	44.9	44.5	22.9	22.2	22.5	22.3	92.7	93.4	93.6	93.0
EU (15)	18.5	20.1	20.5	19.9	3.3	3.4	3.5	3.5	44.8	45.3	45.5	45.0	23.2	22.5	22.8	22.6	93.6	94.2	94.5	93.7
East Europe	8.9	8.1	8.7	8.9	1.3	1.4	1.6	1.7	38.4	39.9	41.0	39.1	19.7	22.9	23.6	24.0	69.5	73.2	75.6	74.1
Czech, Rep.	7.3	9.3	10.4	9.3	0.1	0.1	0.1	0.2	41.2	41.7	42.1	40.8	23.7	32.1	31.8	31.1	76.7	86.7	88.1	86.0
Hungary	5.3	4.7	6.0	6.1	0.8	0.9	1.0	1.0	43.7	49.9	45.9	44.5	37.7	38.8	37.1	34.7	88.9	95.0	90.9	87.2
Poland	6.2	5.2	6.0	6.5	0.0	0.0	0.0	0.0	46.5	51.1	54.5	50.6	20.3	23.4	22.2	22.8	73.8	80.5	82.4	79.5
Romania	7.1	7.4	7.1	7.1	2.3	2.5	2.5	2.6	22.4	25.3	24.3	24.0	15.8	19.2	20.3	21.3	49.0	55.1	54.8	55.6
Oceania	35.5	31.1	33.5	33.3	23.2	19.0	17.8	18.1	16.2	16.6	17.6	17.5	26.3	27.4	28.5	28.8	100.6	97.1	98.6	97.2
Australia	44.9	39.7	41.7	42.1	22.2	18.7	16.0	16.3	18.6	19.2	20.7	20.4	33.1	34.5	35.8	36.2	118.2	115.2	114.4	112.5
New Zealand	46.0	38.5	47.1	43.5	60.3	47.1	60.3	60.7	16.3	17.2	17.8	17.7	29.7	32.8	34.0	35.0	145.4	139.1	152.4	150.9
CIS (12)	14.7	15.7	15.7	15.5	1.8	1.8	1.8	1.8	10.9	11.9	12.0	11.9	9.9	11.0	11.0	11.0	38.4	41.2	41.3	40.9
Developed countries	22.2	22.9	23.0	22.7	2.3	2.3	2.3	2.3	28.5	29.3	29.4	29.2	25.4	26.5	26.8	27.2	80.1	82.4	82.4	82.5
Developing countries	6.2	6.4	6.4	6.3	1.7	1.8	1.8	1.9	11.2	11.5	11.6	11.8	7.9	8.1	8.3	8.2	27.7	28.4	28.7	28.9

1/ Including Other Meat
2/ Excluding CIS countries in Asia

Bringing American Lamb to the Table

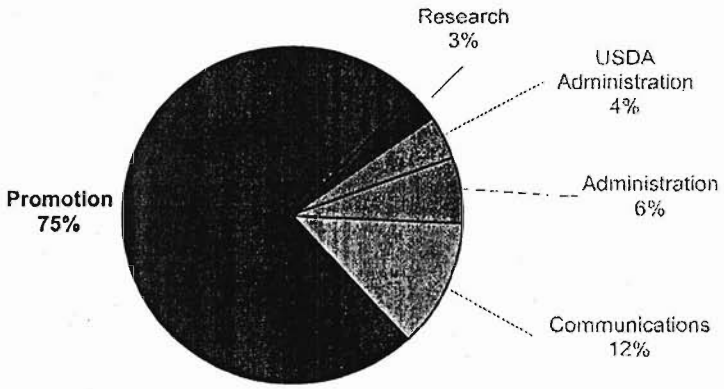


AMERICAN LAMB BOARD

ALB Strategy

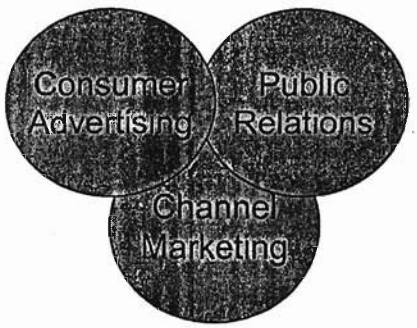
- Promote American Lamb to the best target groups as identified by existing research
- Minimize the volatility of seasonal product sales through targeted promotions
- Communicate openly and on a regular basis with ALB contributors
- Leverage and expand the ALB budget by developing cooperative partnerships
- Use research data to benchmark, measure and evaluate progress

ALB FY04 Budget – 2.4 million



ALB Marketing & Promotions

Through advertising, channel marketing and public relations, ALB wants to increase the demand for American Lamb in the marketplace throughout the year at a profitable price.

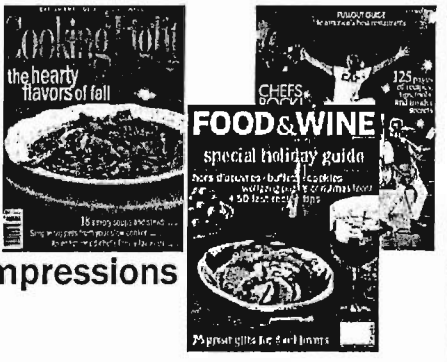


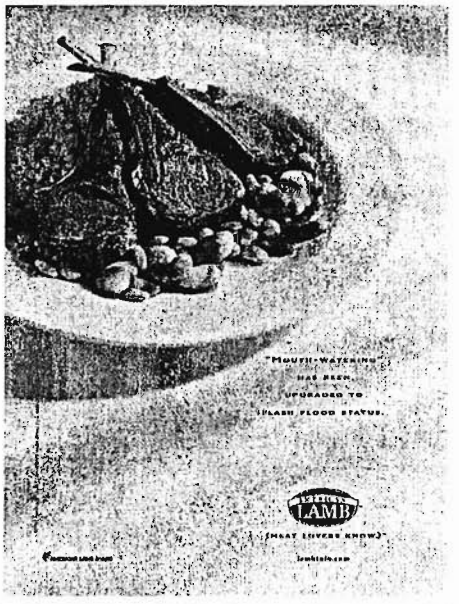
Consumer Marketing

- Goals
  - Increase domestic market's overall acceptance of lamb
  - Establish American Lamb as the preferred choice for lamb in the market place
- Target Market
  - Primary Audience – "Emerging Gourmets" who tend to be:
    - 40-60 years old
    - High HH income ($60,000+)
    - Married
    - Suburban
    - High lamb consumption
    - Dine out often
    - Enjoy cooking and entertaining
    - Attend and participate in cultural activities

Consumer Marketing

- Implementation
  - Full page, four-color ads in national epicurean magazines, utilizing current "(Meat Lovers Know)" print ads
    - *Bon Appetit*
    - *Cooking Light*
    - *Food and Wine*
    - *Gourmet*
  - Anticipated Results= 95,600,000 consumer impressions





Public Relations

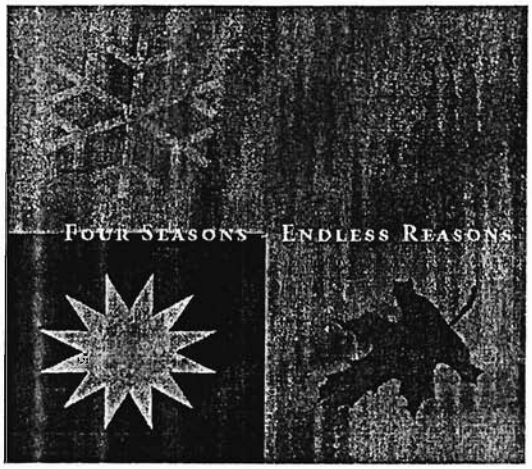
Goals:

- Minimize volatility of seasonal product sales
- Promote new uses and cuts of American Lamb

PR Approach:

- Leverage seasonal cooking trend
- Use as platform to introduce new cuts

Introducing...



Four Seasons • Endless Reasons Campaign

Promoting American Lamb for Every Season

Our Targets

Emerging Gourmets
↓
Food & Lifestyle Magazines
Newspaper Food Sections
Feature TV News
Prominent Events

Culinary/Retail Food Professionals
↓
Chef Events
Trade Media

Strategic Approach

- Enlist Chefs as "American Lambassadors"
- Create Splashy National Magazine Media Event
- Conduct Consumer Media Relations
- Execute Culinary Marketing Campaign

Key Messages

1. Year-Round Availability
2. Wide Variety of Cuts and Many Value Options
3. Choose American Lamb for Mild and Fresh Flavor

Consumer Media Relations

- New York Event - American Lambassadors Team Up
- Nationwide Press Kit Distribution
- Eat American For Lamb Campaign
- Local T.V Interviews
- National T.V. Coverage

Culinary Marketing Campaign

- Secured American Lamb sponsorship and presence at 6 prominent food events
  - Ongoing culinary and foodservice/retail trade media relations

IACP
INTERNATIONAL ASSOCIATION OF CULINARY PROFESSIONALS

EpCot

THE AMERICAN ACADEMY OF CHEFS
Honor Society of the American Culinary Federation

THE CULINARY INSTITUTE OF AMERICA 1946

IFEC

What's Next?

Consumer Media Campaign

- Ongoing media relations
  - National media pitching
  - Color recipe pages for newspapers
  - Summer press kit for newspapers and TV

Culinary Marketing Campaign

- Chefs recipe contest
- Ongoing trade media relations

Channel Marketing

- Goals/Targets
  - Increase featuring and ensure availability of American lamb at top 25-50 leading supermarket chains
  - Encourage the menuing of American lamb with particular focus on casual dining and high-end restaurant chains
  - Educate the chef/student community on the features and benefits of American lamb vs. foreign competition

Culinary Education

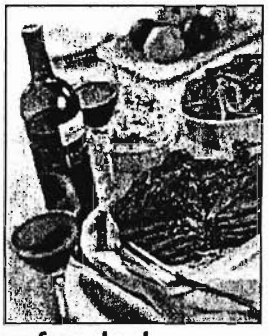
- Educate the chefs of tomorrow
- Targeting culinary school educators and students
- Mailing of video and Instructor's Guide to leading culinary schools in February/March
- Available in VHS and DVD format

American Lamb Makes the Plate

Retail Marketing

- Focus on partnership programs to stretch the budget
- Select partners based on common customer base, financial resources and complimentary categories

Spring/Summer '04 Retail Program



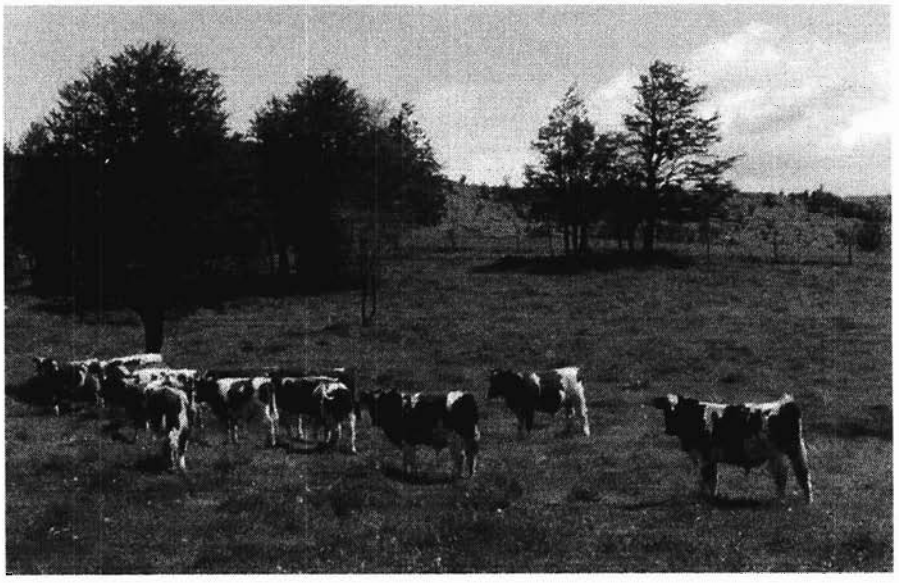
- Continue partnership with Buena Vista Winery
- Kraft third partner
- Grill oriented cuts (loin chops)
- Present program to leading lamb suppliers in conjunction with BVW
- Program components include partner-funded coupons, wine, meat and grocery POP, recipes, wine-pairing suggestions and sweepstakes

Recipe Label Program 2003-04

- Key retailers including Albertson's, Kroger, Stop & Shop, Price Chopper, Acme, Roche Bros., Kash 'n Carry
- Over 10 million labels purchased by retailers to date

TEXTO DE TRABAJO SOBRE SISTEMAS PATAGONICOS DE PRODUCCION DE CARNE

Presentado para publicación en Revista "Tierra Adentro"



SISTEMAS PRODUCTIVOS DE CARNE BOVINA Y OVINA EN LA PATAGONIA HUMEDA DE CHILE (AYSÉN)

Christian Hepp
Ing.Agr. M.Phil PhD
INIA *Tamelaike*
Coyhaique, Región de Aysén, Patagonia, Chile

Introducción

La Patagonia Húmeda se ubica principalmente en la vertiente occidental de la Cordillera de los Andes y en los valles intermontanos de las regiones de Aysén y Magallanes (Chile). La Zona Intermedia de Aysén , aún cuando se proyecta hacia la vertiente oriental de los Andes, cuenta con precipitaciones anuales que fluctúan entre los 800 a 1500 mm y corresponde probablemente al sector de mayor potencial de intensificación ganadero de la Patagonia austral, con alrededor de 250.000 ha factibles de mejorar (Hepp 1993).

Desde la década de los ochenta, en la Región de Aysén se ha evaluado el mejoramiento de praderas naturalizadas de la Zona Intermedia, determinándose altas respuestas a la aplicación de fósforo y azufre, elementos deficitarios en los suelos de la zona (Hepp 1996, 2001). Si bien el nitrógeno es el elemento más deficitario en estos suelos, la filosofía aplicada es su obtención a través del proceso de fijación simbiótica por especies leguminosas, especialmente trébol blanco (*Trifolium repens*), pero también trébol rosado (*Trifolium pratense*) y, más recientemente alfalfa (*Medicago sativa*). Ello se ve reforzado por la presencia de abundante trébol blanco en las praderas naturalizadas fertilizadas de la zona (30-50% de la composición botánica) y a la medición de eficientes niveles de fijación de nitrógeno en praderas locales (121-262 kg N ha^{-1} por año) (Hepp y Almonacid 1995). La aplicación de fósforo y azufre permite incrementar la producción de materia seca de las praderas naturalizadas de la Zona Intermedia, desde niveles de menos de 1000 kg MS ha^{-1} en praderas degradadas a valores superiores a los 6000 kg MS ha^{-1} luego de tres años de aplicación de fertilizantes. Paralelamente se produce un aumento en la calidad del forraje producido (digestibilidad, proteína), al producirse cambios botánicos profundos, desde una dominancia de especies malezas hacia una pradera compuesta por trébol blanco y especies gramíneas de mayor valor nutritivo (Hepp, Mejías et al. 1995).

Estos incrementos cuantitativos y cualitativos de la producción forrajera de las praderas naturalizadas necesariamente requieren de un ajuste de los sistemas de producción ganadera, tradicionalmente de crianza bovina y ovina, y se abren oportunidades de realizar recrías y engordas con productos de mayor valor y calidad. Este trabajo relata las diferentes etapas de intensificación experimentadas por praderas naturalizadas de esta zona, con énfasis en la producción de carne bovina y ovina, extractada de resultados obtenidos por el INIA Tamal Aike.

Clima y Suelos

El clima de la zona es transandino con degeneración esteparia y registra precipitaciones que fluctúan entre los 800 a 1000 mm anuales. La temperatura media anual es de 8,5 °C, con un rango de 3,6°C en invierno y 13,6°C en verano. La temperatura mínima media de invierno es de –0,4°C, mientras que la máxima media de verano alcanza los 19,9°C. Alrededor de 10% de la precipitación anual ocurre en forma de nieve.

Los suelos se caracterizan por la presencia abundante de cenizas volcánicas depositadas por acción eólica en un paisaje modelado por glaciares, además de terrazas aluviales y lomajes morrénicos. Son ligeramente ácidos (pH 6,1), presentaban deficiencia de fósforo (11 mg kg^{-1} P Olsen) y de azufre (5 mg kg^{-1} S-SO_4), niveles elevados de potasio (340 mg kg^{-1}), altos niveles de bases de saturación (21,6 cmol+ kg^{-1}), retención de fósforo intermedia y niveles de aluminio mínimos.

Praderas

Las praderas naturalizadas sin fertilizar (PN) contienen gramíneas de regular valor forrajero, especialmente *Poa pratensis* L. (poa) y *Holcus lanatus* L (pasto miel). En praderas naturalizadas fertilizadas (PNF) aparecen además proporciones menores de *Dactylis glomerata* L (pasto ovillo) y *Lolium perenne* L (ballica perenne), además de presentar alto contenido de *Trifolium repens* L (trébol blanco) en relación a PN. Esta última está dominada por especies malezas, entre las que destacan *Taraxacum officinale* (diente de león), *Acaena pinnatifida* (pimpinela), *Fragaria chiloensis* (frutilla silvestre), *Cerastium spp* (cerastio) e *Hypochoeris radicata* (pasto del chancho). La variación típica de la composición botánica de una pradera naturalizada sin fertilizar (PN) y otra fertilizada por 10 años (PNF), se detalla en la figura 1. Asimismo, la variación estacional de la composición botánica tiene efectos sobre el valor nutritivo del forraje disponible, como se aprecia en la figura 2.

La aplicación de fósforo y azufre provoca incrementos en la producción de materia seca de PNF (Figura 3). De valores iniciales cercanos a 1500 kg ha^{-1} en las praderas degradadas (PN), al cuarto año se observa en PNF un incremento de 127% con respecto a PN. La producción de PNF tiende a estabilizarse al quinto año en niveles de 5500 a 6500 kg ha^{-1}, pero las diferencias con PN se agudizan al decaer la producción de ésta en el tiempo. Es así como PNF produce entre 2 a 6 veces más materia seca en los años finales de evaluación.

Evaluación de Sistemas Productivos

El mejoramiento de praderas naturalizadas a través de la fertilización con P y S abre posibilidades de intensificación de la producción ganadera. Para ello se han probado diversas alternativas, que se han ajustado a los diferentes escalones dentro del proceso de mejoramiento.

a. Crianza bovina

La rigurosidad climática de esta zona implica un período de crecimiento limitado de las praderas, el que se extiende aproximadamente entre los meses de octubre a marzo. Ello implica necesariamente integrar la conservación de forraje, o bien el uso de rezagos y/o combinaciones silvopastoriles, además de pérdidas controladas de peso vivo de las vacas. No obstante, una raza especializada en producción de carne (Hereford) presenta mayor rusticidad al tener menores requerimientos de mantención, por su menor tamaño corporal y la buena utilización de forrajes toscos, respecto al Overo Colorado (OC) o Frisón Rojo, raza tradicionalmente de mayor presencia en la zona(Bórquez 1984). Asimismo, la raza Hereford, por su mayor precocidad, debiera acortar los procesos de engorda (Anrique et al. 1981).

La incorporación de la raza Hereford (H) al sistema de crianza bovina, junto al mejoramiento gradual de la pradera a través de la fertilización, la subdivisión mediante cerco eléctrico y regulación de la carga animal, fueron abordadas por los trabajos iniciales de Bórquez (1984). En ellos abordó la evaluación de requerimientos de forraje conservado (heno), y el rendimiento productivo y reproductivo de las razas H y OC durante tres años, partiendo con praderas altamente

degradadas. En ambos sistemas de crianza se fue incorporando un 50% de superficie fertilizada, la cual era utilizada principalmente durante el período de primavera-verano.

Este estudio permitió determinar que en la Región de Aysén, en sólo tres años, es factible incrementar la carga animal de sistemas de crianza bovina en un 28% (0,46 *vs* 0,36 UA/ha), mediante la incorporación de la raza Hereford y un plan de fertilización parcial del predio. La raza H, con vacas en promedio 12% más livianas que las OC, tuvo 44% menores requerimientos invernales de forraje conservado, producto de menor consumo diario y de un período de suplementación también inferior a OC. Estas condiciones de mayor rusticidad de H sobresalen especialmente en los inviernos más críticos, donde las pérdidas de peso invernal son menores a las de la raza OC. Si bien los pesos de destete de H son algo inferiores a los de OC (196 *vs* 211 kg), ambos son adecuados y el resultado final favorece a la raza H, dada las mayores cargas que es factible manejar (26% más producción total en sistema H *vs* OC: 147 *vs* 117 kg/ha).

b. Recría y engorda de novillos

El uso de praderas naturalizadas fertilizadas abrió la posibilidad de iniciar sistemas más intensivos de producción de carne bovina, como es el caso de sistemas de recría/engorda estacional con ganado Hereford. En un sistema de este tipo, los animales ingresan con un peso vivo aproximado de 190 kg en octubre y utilizan la pradera a pastoreo durante aproximadamente 210-220 días, hasta el mes de mayo del año siguiente. Ello corresponde a la etapa de 12 a 18-19 meses de edad, aproximadamente.

El sistema PNF se diferencia significativamente del sistema PN a partir del día 150, aproximadamente en febrero-marzo (figura 4). Los novillos en PNF siempre presentan mayores ganancias de peso, mientras en aquellos de PN declinan más rápidamente e incluso llegan a producirse pérdidas de peso a fines de la temporada. Los animales de PNF logran pesos finales cercanos a los 400 kg de peso vivo, que en novillos Hereford es adecuado para faenamiento. Sin embargo, en PN, los pesos finales son notablemente inferiores, lo que obliga a estos animales a pasar un segundo invierno y ser finalizados más cerca de los 30 meses.

El sistema PNF permitió un aumento gradual de la carga a través de los cinco años, desde 1,8 a 2,8 novillos ha^{-1} al final del período, mientras que en PN no fue factible manejar en promedio más de 0,9 novillos ha^{-1}. En PNF, la ganancia promedio por animal y la ganancia diaria de peso (975 g d^{-1}) fueron en promedio 44% mayor a la de PN (678 g d^{-1}). La producción promedio de carne (peso vivo) en PNF fue 2,9 veces mayor a la de PN, aunque se observó un aumento sostenido en cada uno de los años estudiados, desde casi 390 kg ha^{-1} hasta 592 kg ha^{-1} en el año 4. Por otra parte, en PN la producción permanece estancada en niveles comparables a los sistemas de crianza reportados anteriormente (en promedio 124 kg ha^{-1}). Los incrementos de producción son un resultado de una combinación de mayor carga animal y mejor desempeño individual en PNF respecto de PN.

c. Recría y engorda ovino-bovina

Las praderas fertilizadas tienen su máximo de producción en el mes de diciembre y la tasa de crecimiento tiende a superar largamente los requerimientos animales. Ello genera un período de sobreproducción, donde el forraje se acumula y la calidad decae por sobremaduración. Una alternativa de uso de estos excedentes de forraje puede ser la incorporación estacional de corderos destetados en pastoreo conjunto o diferido con bovinos. Para determinar la respuesta animal a un sistema de estas características, se probaron varias relaciones novillo:cordero sobre praderas con un historial de 12 años de fertilización. Los novillos fueron de raza Hereford y los corderos destetados

Corriedale (18 kg peso vivo). Se utilizó como testigo un sistema bovino puro sobre PNF, además de un control con novillos sobre PN.

Los pesos finales de novillos de los sistemas mixtos de relación 1:1 (380 kg) y 1:2 (374 kg) fueron similares a los de 1:0 (408 kg), lo que indicaría que los niveles de competencia entre especies son moderados. Al elevarse la relación a 1:3, el peso vivo de los bovinos se resiente notoriamente (347 kg) y dichos novillos no alcanzan pesos de término, aunque siguen siendo superiores a los de PN (304 kg). Los corderos en el tratamiento 1:2 logran los mayores pesos vivos (40,9 kg), mientras que en 1:3 los pesos y ganancias son muy inferiores. En 1:0 los novillos logran las mayores tasas de crecimiento (1.150 g d^{-1}), y con 1 o 2 corderos por novillo las ganancias de peso en bovinos son similares (980 g d^{-1}).

Los cuatro sistemas sobre PNF presentan una cantidad similar de kg totales ganados por unidad de superficie (Figura 5), a pesar que en rigor ambas producciones no son estrictamente aditivas. La tendencia es una disminución de la producción bovina al aumentar la carga de ovinos. Sin embargo, los resultados de pesos finales en novillos indicarían que en forma preliminar, una relación novillo:cordero de hasta 1:2 seria sostenible sobre estas praderas, sin perder demasiado peso final de bovinos, asegurando la finalización de los animales.

d. Engorda estacional ovina

Otra alternativa de uso de PNF es la engorda de corderos, los que pueden ser destetados en forma precoz. Para determinar el potencial de producción de carne de cordero en PNF, se realizó una experiencia probando diferentes presiones de pastoreo, durante el período de engorda final, entre los meses de enero y marzo. Para ello se trajeron corderos de raza Corriedale de las estepas y se sometieron a diferentes tratamientos de cargas durante un período de 80 días. Las praderas utilizadas habían sido previamente utilizadas con bovinos, hasta el mes de diciembre. El cuadro 4 resume los principales resultados, evaluados entre el 1 de enero y 22 de marzo. Se utilizaron cuatro cargas de corderos, de 25, 35, 45 y 55 corderos por hectárea.

Las cargas más bajas presentaron mayores ganancias diarias de peso vivo y mejor evolución de la condición corporal. Las ganancias de peso iniciales llegaron a niveles de 250 a 300 g d^{-1} en C25 y C35. La condición corporal final en C25 y C35 fue de 3,15, mientras que en C45 y C55 llegó a 2,90. Los pesos de canal fría alcanzados en C25 (15,3 kg) y C35 (14,3 kg) permitieron obtener canales más pesadas, aunque con mayor deposito de grasa. Los corderos de cargas más altas tuvieron canales más pequeñas (12,2 kg) y menor cantidad de grasa.

La determinación de qué carga usar deberá estar en relación al objetivo del sistema productivo. Si se desea una mayor producción por unidad de superficie de más de 500 kg de peso vivo por hectárea, es recomendable usar cargas de C45 o C55, con pesos de faenamiento de aproximadamente 31 kg. Si el requerimiento es de corderos más pesados, las cargas más livianas de 25 o 35 corderos por hectárea permitirán llegar a pesos finales de 34 a 36 kg de peso vivo.

Es destacable la alta producción por hectárea que se logra en estos sistemas intensivos con corderos, ya que en sólo 80 días se llega a superar los 600 kg de peso vivo ha^{-1}, lo mismo que puede llegarse a lograr con novillos en casi siete meses.

Proyectos recientes de INIA Tamel Aike (con apoyo FIA) están incorporando nuevas razas a la producción ovina regional, como es el caso de Texel, Border Leicester, Suffolk y Milchschaf, las cuales en sistemas de cruzamientos pueden mejorar los resultados de producción y calidad de canal.

Literatura citada

Anrique, R., S. Matte, et al. (1981). Hibridismo: Manual para aumentar la producción de carne, Corporación de Fomento de la Producción - Universidad Austral de Chile: 20 p.

Bórquez, H. (1984). Comportamiento de vientres Hereford y Overo Colorado. Valle Simpson, Aysén. Investigación en Técnicas Pecuarias en la XI Región de Chile. Coyhaique, Instituto de Investigaciones Agropecuarias y Serplac XI Región: 107-119.

Ehijos, J. (1992). Engorda intensiva de corderos en praderas naturales fertilizadas en la Zona Intermedia de Aysén. Tesis Ing Agr. Universidad Austral de Chile. Valdivia, Chile.

Hepp, C. (1993). El potencial ganadero de Aysén. Ley de la Carne: Un Desafío para la Región de Aysén, Seminario Colegio Ingenieros Agrónomos. Coyhaique, Chile.

Hepp, C. (1996). Praderas en la Zona Austral: XI Región (Aysén). In: Praderas para Chile. I. Ruiz. Santiago, Chile: 625-638.

Hepp, C. (2001). Programa de bonificación de fertilizantes para las praderas naturalizadas de la Zona Austral de Chile: Evaluación del sexenio 1993-1998. Boletín INIA. Coyhaique: 24.

Hepp, C. and P. Almonacid (1995). Estimación de la fijación de nitrógeno por el trébol blanco en praderas naturales mejoradas de Aysén. In: Investigación en Tecnologías de Uso de Fertilizantes en Praderas de la XI Región. Informe. INIA.-Intendencia Región de Aysén. Coyhaique, Chile: 47-53.

Hepp, C., J. H. Mejías, et al. (1995). Respuesta a los macronutrientes fósforo, azufre, nitrógeno y potasio en cuatro zonas agroclimáticas de la XI Región. In: Investigación en Tecnologías de Uso de Fertilizantes en Praderas de la XI Región. INIA-Intendencia Región de Aysén. Coyhaique, Chile: 1-30.

Hepp, C., H. Thiermann y L. Goic (2003). Comparación de engorda de novillos Hereford en condiciones de praderas naturalizadas con y sin fertilización en la Zona Intermedia de Aysén (Patagonia)." (en preparación).

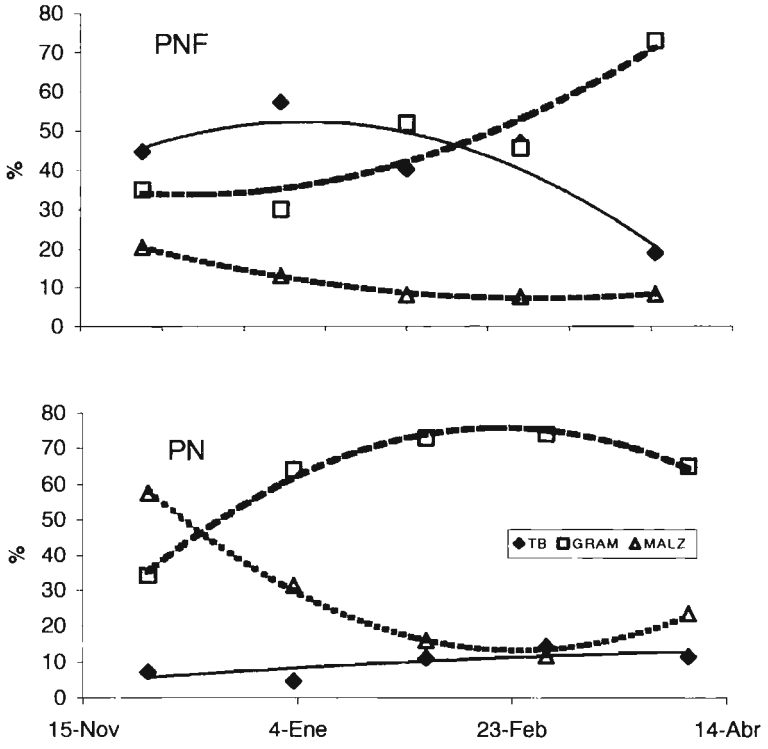


Figura 1. Variación de la composición botánica (% base MS) en praderas naturalizadas fertilizadas (PNF) y sin fertilizar (PN) luego de 10 años de fertilización, durante la principal temporada de crecimiento. Valle Simpson, Aysén, Chile.
TB trébol blanco, GRAM gramíneas, MALZ malezas. Fuente: adaptado de Hepp, Thiermann y Goic (2003)

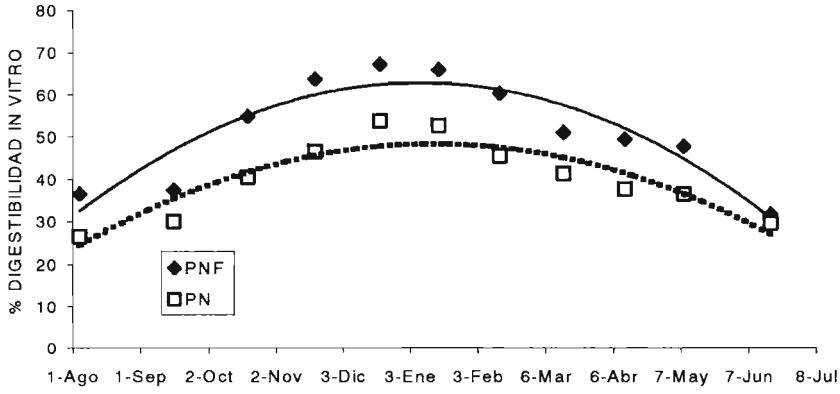


Figura 2. Variación de la digestibilidad in vitro (% base MS) en praderas naturalizadas fertilizadas (PNF) y sin fertilizar (PN) luego de 10 años de fertilización. Valle Simpson, Aysén, Chile. Fuente: adaptado de Hepp, Thiermann y Goic (2003)

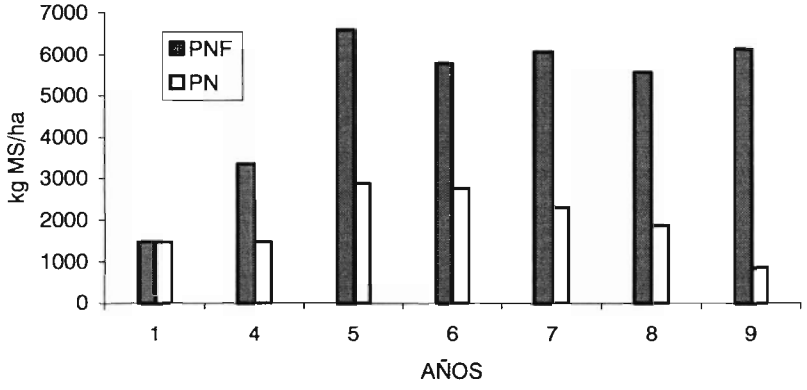


Figura 3. Variación de la producción de materia seca (kg MS ha^{-1}) en praderas naturalizadas fertilizadas (PNF) y sin fertilizar (PN) durante nueve años de fertilización. Valle Simpson, Aysén, Chile.
Fuente: adaptado de Hepp, Thiermann y Goic (2003) y Bórquez (1984)

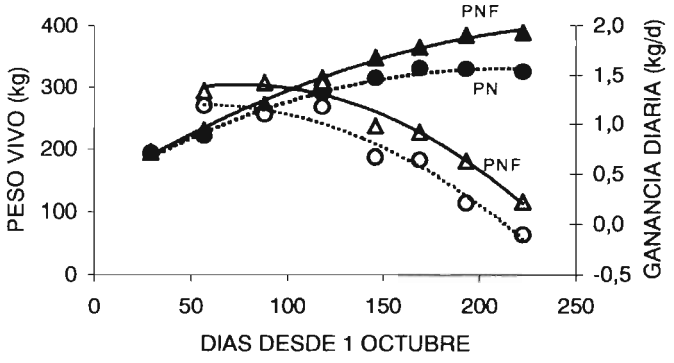


Figura 4. Variación del peso vivo (kg) y ganancia diaria de peso (kg d^{-1}) de novillos Hereford engordados sobre praderas naturalizadas fertilizadas *vs.* sin fertilizar. Promedio 5 años. Valle Simpson, Aysén, Chile.
Fuente: adaptado de Hepp, Thiermann y Goic (2003)

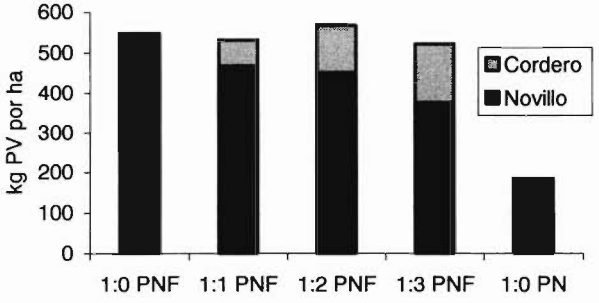
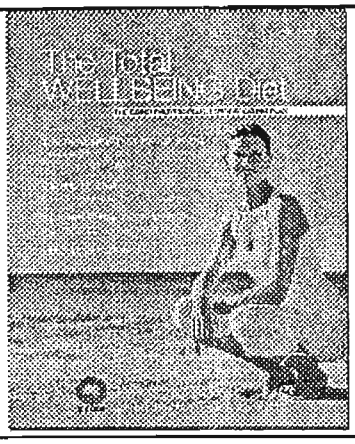
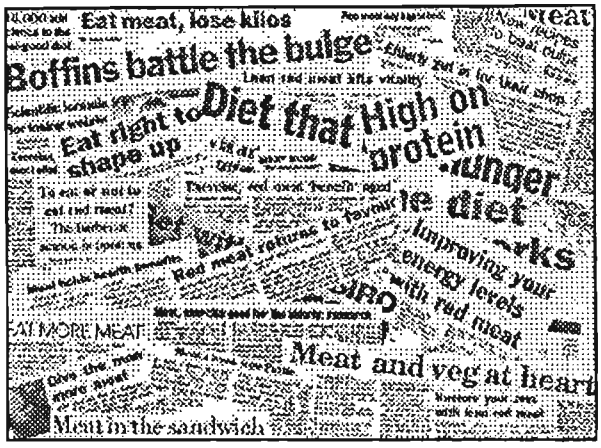


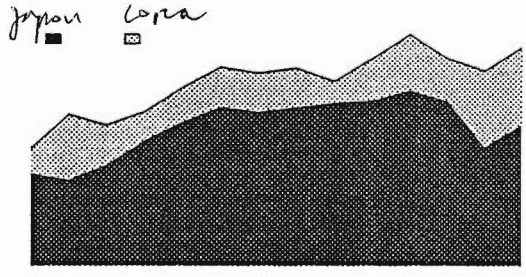
Figura 5. Peso vivo (kg) producido por unidad de superficie (ha), en novillos Hereford y corderos Corriedale, en diferentes sistemas mixtos o individuales sobre praderas naturalizadas fertilizadas (PNF). Valle Simpson, Aysén, Chile.
Fuente: adaptado de datos sin publicar (Hepp, 2003)



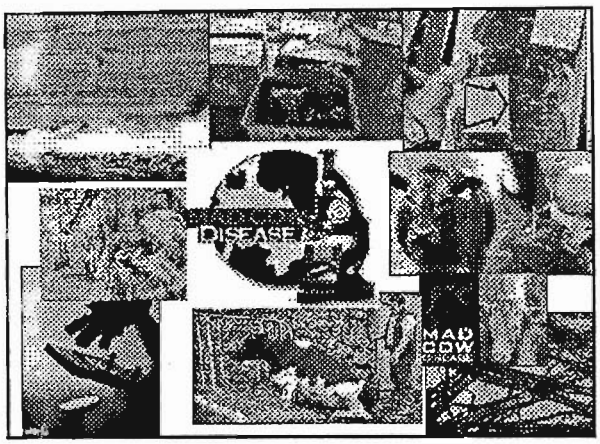


Cutting edge science grading scheme lifts beef quality & consistency

Rising North Asian beef import demand

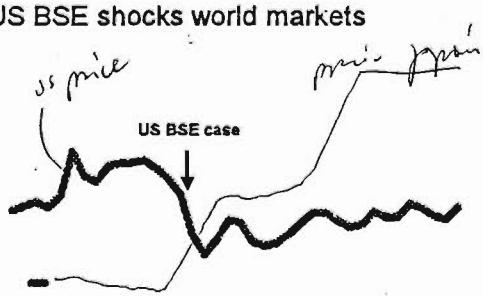


Source: Japan Ministry of Finance, KOTIS



US BSE:
The biggest shock to ever hit world beef markets

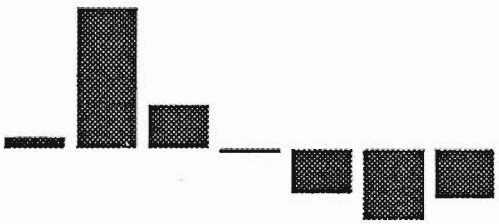
US BSE shocks world markets



Source: Chikusan Nippo, Steiner

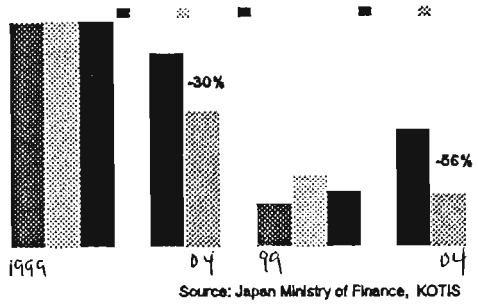
US absence shifts trade flows

Change in Australian beef exports



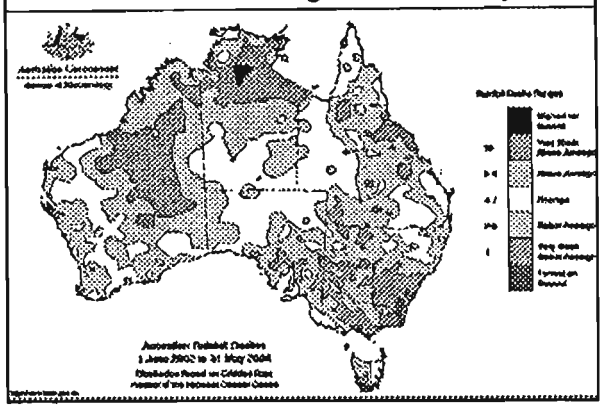
Source: DAFF

But ultimate impact is a loss of beef customers:
Japan and Korea beef imports fall sharply

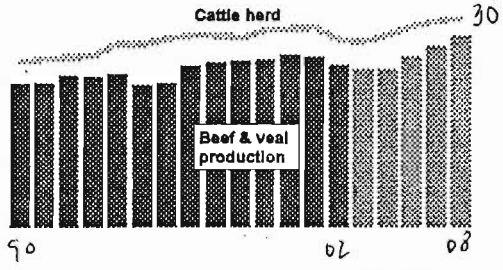


Source: Japan Ministry of Finance, KOTIS

Australia's severe drought enters third year



Drought impacts on Australian supply



Source: ABS, MLA forecasts

Need for global cooperation to expand beef consumers and trade

- Border controls to be based on science
- Successful outcome of WTO Round vital
- Japan snapback needs to be suspended for US re-entry
- Global nutritional health promotions

The Global Meat Economy: Outlook and Issues for the Beef and Pork Industries

World Meat Congress, Winnipeg, Canada, 14 June, 2004

Nancy Morgan, ESCB/FAO

The global livestock economy over the past decade has been characterized by one of the fastest consumption and trade growth of all major agricultural commodities. Growing numbers of quality-conscious urban consumers in developing countries have spurred global demand for meat and dairy products which, increasingly, has shifted from bulk meat trade to more specific value-added products and specialised cuts. Much of this demand has been met by increased output in developing countries themselves, where relatively low feed prices, technology transfers, and increasing vertical integration and concentration have combined to keep prices relatively low for consumers.

Among the major factors that have influenced the global livestock sector over the past few decades, the following were of particular relevance. Many of these factors are expected to continue to shape and influence markets over the next decade.

- Structural changes in the livestock industries, including improved genetics, animal housing, and enhanced management: In part these changes are a result of growing cross-border technology and investment flows into meat industries around the globe, particularly in strong growth markets or low-cost production regions. This trend is likely to continue in the future, leading to changing cost structures in industries in developing countries.
- Changes in policy environment: Implementation of WTO provisions for meat products have led to a reduction in the use of export subsidies and expanding access to various markets. These developments have stimulated trade flows and led to increasing participation of developing countries in international markets as exporters. Continued progress toward freer trade on international markets is projected over the next decade, assuming continuation of existing or announced national agricultural policies affecting these sectors.
- Increased instability in global meat markets as a result of animal disease outbreaks and escalating human health concerns related to BSE and antibiotics in feed. World-wide import bans on meat from infected areas and heightened border inspections and testing have had distorting effects on the patterns of livestock and meat trade, inducing trade diversion and shifting relative prices among meats. Human and animal health issues, as well as those related to product quality, are expected to increase in complexity over the next decade and influence consumption patterns.

This presentation will review the general trends underpinning growth in the global livestock sector, identify some of the factors affecting the global meat outlook for 2004, take a look at the issue of trade and animal diseases, and finally, summarize some of the challenges which face livestock producers, traders, researchers, consumers, and certainly policy makers.

The Livestock Revolution

The rapid growth in livestock production and trade over the past decade has been characterised as a revolution. Certainly growing incomes, urbanisation and changing life styles and consumption choices have prompted strong demand for meat products, mainly in developing countries. In fact, nearly three-quarters of the growth in global meat production and consumption over the past decade has been housed in developing countries. Consumer preferences and the changing cost structures of livestock production and processing industries have led to strong production gains for poultry and pork products, both of which are lower-priced than beef cuts. These changes in industry structure, lower prices and a evolving international policy environment which, through the World Trade Organisation (WTO), has increased market acccess, has led to a trade gains of over 7 percent annually in meat trade over the 1990s. Both health and economic factors, such as lower relative prices, have benefitted poultry share of global meat trade, which rose from 22 percent in 1990 to over 41 percent by 2003.

The total value of livestock and meat trade in 2002 is estimated at US$54 billion, or 12 percent of total agricultural trade. The Western Hemishere, exporting 10.4 million tonnes of meat products in 2002, accounted for over 50 percent of world meat trade. The total agregate value of meat and live animals from the region is estimated at US$ 13.5 billion and and US$ 2.6 billion respectively.

The list of major issues on concern to market participants in the livestock sector continues to grow as markets become more complex and integrated. Disease outbreak and food safety concerns predominant in 2004 but policy developments influence markets as do structural change/competitivenss in industries due to new technologies, improved management, environment regulations, animal welfare concerns. All of these, including policy developments/liberalisation prospects as a result of WTO and regional trade agreements, will influence long term market propsects for livestock market participants.

The Meat Outlook for 2004

Animal disease outbreak have been disrupting international markets periodically over the past three years. The impact of alternating disease outbreaks and recovery results in rapid increases in exportable meat supplies and considerably increase price volatility at international levels. In 2004, animal disease outbreaks are substantially affecting the outlook for the global meat market with approximately one-third of global meat exports, or 6 million tonnes, being presently affected by outbreaks of avian flu or by identified cases of BSE. While bans on imports may be temporary, global meat trade, originally forecast to rise in 2004, is likely to slide four percent. Import bans on poultry and beef exports from disease-affected markets are leading to higher international meat prices for product originated from disease-free zones as well as putting upward pressure on other animal protein product prices. Considerably trade diversion is expected to occur, with importers turning to disease-free meat suppliers, particularly those in Latin America and Oceania, to supply their markets.

The Beef Sector: Limited supplies and high prices depress bovine meat trade prospects

Global bovine meat production is forecast to reach 61.9 million tonnes in 2004, up marginally from the previous year. Low cattle inventories in Oceania, BSE concerns in North America, and reduced sector support in the EU are constraining slaughtering, leading to an expected 2 percent drop in bovine meat production in developed countries. By contrast, output in developing regions is anticipated to rise by 3 percent, with continued strong gains foreseen in China, India, the Republic of Korea, and Mexico. Per capita beef consumption in both developed and developing regions is set to drop by 1 percent to 22.7 and 6.4 kg/caput, respectively.

Higher prices and import bans on product originating from North America are expected to drop global beef trade by 8 percent to 5.6 million tons. North American exports, totalling 1.5 million tonnes in 2003 and valued at US$ 4 billion, are expected to plummet by 50 percent. While exports from Canada will recover as the US lifts import restrictions on Canadian product, US exports are estimated to decline 82 percent. Meanwhile, as demand for beef from disease-free suppliers surges, shipments from South America might expand by 17 percent, with Brazil's share of global beef shipments rising to 22 percent. However, the gap left by beef trade restrictions on North American product is unlikely to be filled by product from South American or Oceania. Consequently, purchases by the major importing countries of Japan, Mexico, and the Republic of Korea are projected to fall by 35 percent, 30 percent, and 40 percent respectively. While Indian beef exports are likely to rise 14 percent, a marginal decline in Australian shipments is anticipated, on account of limited inventories and an appreciating currency. Meanwhile, the EU is set to register their second year as a net beef importer as exports decline for the fifth consecutive year.

The Pigmeat Sector: Despite limited pigmeat output gains and higher prices, trade expected to expand

Low returns to hog producers in the context of higher feed prices in 2004 are expected to limit pigmeat output to 97.7 million tones, up less than 2 percent from 2003. In many countries, production costs are exceeding market prices as international maize and soybean meal prices have soared 20 percent and 65 percent respectively compared with last year. Lower profitability facing many of the producers in Europe and Brazil, combined with reduced prospects for imports by Russia, are dampening major

exporters' production outlook. By contrast, in the United States, output is expected to rise by 3 percent supported by strong consumer demand. US producer and retail pigmeat prices remain unusually high given the glut of meat available in the context of export restrictions facing the beef and poultry sector. Overall, however, developed countries are set to experience a slight decline in pigmeat production this year. Meanwhile in Asia, which accounts for 56 percent of global output, and where the AI has battered pigmeat prices, output is set to increase by 3 percent. While per capita consumption is moving up in Asia and developing countries by 2 percent in 2004 to nearly 15.0 kg/caput and 11.8 respectively, it remains significantly below the level in developed countries, where consumption is expected to drop 1 percent to 29.2 kg/caput.

Trade prospects for pigmeat in 2004 are stronger than for poultry and bovine meats, with exports estimated at 4.3 million tonnes, or 2 percent higher than last year. Much of the increase is expected to be sourced in North America, which typically exports high valued cuts to lucrative Asian markets. Shipments by other traditional exporters are expected to hampered by trade restrictions in Russia, which was the world's largest meat importer until its imposition of tariff rate quotas in 2003. Limited access to the Russian market, where imports are forecast down 12 percent, is set to reduce Brazilian shipments by 40 percent while the elimination of EU export subsidies early this year is forecast to reduce EC exports by 4 percent. By contrast, shipments from Mexico and Chile are anticipated to rise as a result of a trade agreement with Japan where strong consumer demand is bringing about an estimated 12 percent rise in imports, a new record. This is despite expectations that the strong import pace might retrigger the pigmeat safeguard, leading to higher tariffs in August.

Meat Price Implications: International meat prices are surging in 2004, as animal disease outbreaks in major meat exporting countries and bans on imports from disease afflicted areas are reducing exportable supplies. Expectations of higher prices for meat from disease-free zones in 2004 come on the heels of rising prices during the previous year. In 2003, the FAO trade-weighted meat price index rose 16 percent, as limited meat production gains lifted price by 42 percent for poultry, 19 percent for beef and 8 percent for pigmeat.

Policy Issues of Concern in 2004:

The accession of 10 new countries into the EU raises a element of uncertainty into the outlook. It is generally felt, however, that accession will only have a limited impact on global meat trade flows. Certainly, accession offers an opportunity to all countries involved to increase trade. The immediate impact will be likely increased product flow, both pork and high quality beef cuts, moving into the acceeding countries. Similar to the US and Canada, hogs may move from Poland and other countries into Germany, be slaughtered and exported back as products. In the long term, increased investment flows into Eastern European countries and improved hygiene standards in existing plants will generate a more equitably flow of trade.

Trade policy developments in 2004 included reduced its use of export subsidies by the EU for both pork and beef, the continuation of restrictive TRQs in Russia, and in Japan, a reduction in the beef tariffs in April and the elimination of the pork safeguard. However, the safeguard may be reimposed by August due to the strong pace of imports. Protection for livestock industries in OECD continues to be high. OECD figures indicate that support for all agricultural products in 2003 is estimated at US$312 billion, this compares to US$637 billion total value of agricultural production. Estimated support to the livestock sector (excluding wool) is 104 billion, or 16 percent of the total support. The estimates for the various meats are:

Beef/Veal: 34 billion (32 percent of total support)

Sheepmeat: 5 billion (.5 percent of total support)

Pigmeat: 11 billion (10 percent of total support)

Poultry: 7 billion (7 percent of total support).

Meat Trade and Animal Diseases

Animal disease outbreaks hold high costs for economies around the globe, result in considerable market disruptions and price volatity as countries import barriers to trade and raise concern about increased cross-boundary risks of disease transmission and effective disease control.

A recent study by FAO measured the costs of selected disease outbreaks[1]. These ranged from US$ 9.2 billion for the FMD outbreak in the UK in 2001 to US$ 6.6 billion for the FMD outbreak in Taiwan in 1997. The latter case led to significant and permanent changes in the pattern of trade, with the Republic of Korea replacing Taiwan as the major supplier of pork to Japan. The FMD outbreak in the Republic of Korea in 2000 then resulted in other suppliers filling the vacuum. Obviously FMD outbreaks were not limited to the EU in 2001; the South America countries of Argentina and Uruguay lost considerable export earnings, estimated at US$ 440 million for Argentina and US$ 178 million. These direct trade losses do not include the costs of public disease control measures, losses to producers and consumers through destabilized markets and fluctuating prices, and the general costs to the industry.

The increasing prevalence of policy measures imposed to ensure human and animal health are revealed by a proliferation since 1995 of notifications to the SPS committee at the WTO. Meat notifications have been rising quickly and constituted about 30 percent of total notifications. A preliminary assessment of notifications to the WTO in the first four months of 2004 reveal that the notifications have already surpassed 200, and accounted for more than 60 percent of total notifications. Certain, they are on track to considerably exceed the record level of 250 received in 2001. To-date, since 1995, out of the more than 4,700 notifications submitted to the SPS committee, 1,371 related to meat products.

The Challenges:

The complexity of the global trading system of meat products is expected to increase further in response to consumers' preoccupation about the ways in which meat is produced and sold. While long term prospects for meat industries are robust with meat demand expected to witness gains high than most other agricultural commodities, annual consumption gains are projected to slow to 2.2 percent annually through 2010. Similarly, growth in meat trade is expected to slow to 2.4 percent annually from the 7 percent gains witnessed over the 1990s. Trade growth for all meats is expected to range between 2.4-3.1 percent over the time period.

However, increased trade in meat product and greater intensification of production systems increase the risk of interantional spread of animal diseases, zoonose and food-borne infections. With greater scrutiny of meat production systems and the "hoof to plate" approach to food safety and quality, there is a risk of proliferation of divergent food standards, sanitary assurances and certification procedures. In addition, social concerns related to the environmental impact of intensive livestock production systems and the way of treating, raising livestock (animal welfare) will result in increasing legislation affecting the cost structure of industries.

It is increasingly clear that product quality and safety are passwords to success. In this increasingly complex marketplace, transparency, appropriate legislation, and greater collaboration between producers, consumers, policy makers, and international organisations is critical to enhancing participation in global livestock and meat markets.

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[1] See FAO website for 2002 IGG document entitled "Animal Diseases: Implications for International Meat Trade" on http://www.fao.org/Unfao/bodies/ccp/me/02/.

Presentation to

2004 World Meat Congress

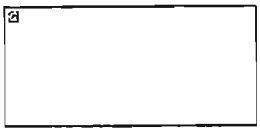
Canada Beef

by

Ben Thorlakson
Chairman
Canada Beef Export Federation

Pr: entation to

2 04 World Meat Congress



by
Ber Thorlakson
Ch man
Ca da Beef Export Federation

The Devastating Impact of BSE

C nadian industry's dependence on rade:

- Canada positioned as 3rd largest xporter of beef and cattle in the world
- 2002 - nearly 60% of Canada's beef roduction went to exports

May 20 – BSE

Immediate suspension of trade

Canada's dependency on trade

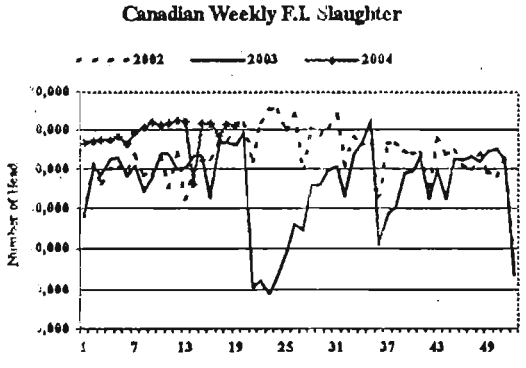
- Since mid-1980s, Canada has become increasingly dependent on slaughter capacity in US

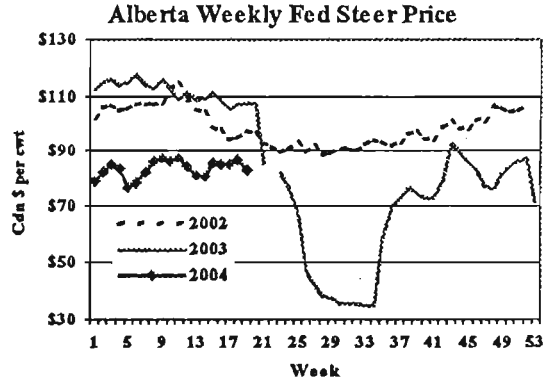
- ntil May 20, surplus production was rocessed in the US
- nnual export of approx. 1 million live attle to US
- uspension of trade caused major nbalance
- anada's cattle supply exceeded its laughter capacity

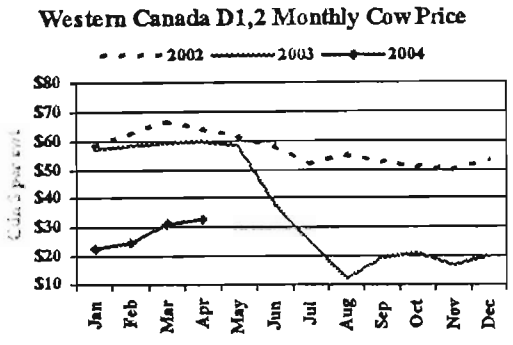
Economic Impact of BSE:

➢Economists estimate current direct loss to Canadian cattle and beef industry is

$2.1 billion







Canada's BSE-Protection Actions

meat bone

- 1978 - Ban importation of MBM from Europe
- 1989 - Ban importation of live breeding cattle from Europe
- 1990 - Classify BSE as official "Reportable Disease", begin Passive Surveillance on all European cattle living in Canada

Canada's BSE-Protection Actions

- 1992 – Active surveillance within the known risk population of cattle
- 1993 – Diagnosis of a BSE cow originally imported from UK
- 1994 – Removal of all remaining European cattle residing in Canada - and destroying and testing of all herd mates & offspring of the index animal

Canada's BSE-Protection Actions

- 1996 - Ban feeding of chicken litter & restaurant waste to cattle
- 1997 – Implemented Mandatory Ruminant Feed Ban
- 1998 – Submit to European (GBR) Risk Assessment Process: Minimal Class 2 Risk

Canada's BSE-Protection Actions

- 2000 – Submit to Canadian & American Risk Assessments: Minimal Risk
- 2001 – Ban air-injection stunning
- 2001 – Implement National Cattle Identification/Traceback System

Canada's BSE-Protection Actions

- 2003 – Diagnosis of BSE in a Canadian-born cow (born before the ruminant feed ban)
- 2003 – Mandatory CNS testing for mechanically deboned beef
- 2003 – SRM removal policy from the human food system

Canada's BSE-Protection Actions

- 2004 – Enhanced National Cattle Identification System
- 2004 – Enhanced BSE Surveillance with OIE Guidance

Possible route by which BSE came to Canada

- 182 live cattle imported from UK between 1981 and 1989
- Prior to 1993, 68 either slaughtered or died on farm
- 10 from farms in UK that had a case of BSE
- Total level of BSE risk was very small – was halted in 1989 – and was blocked in 1997

Despite:

- Canada's Minimal Risk for BSE status
- OIE guidelines which encourage continued trade in safe products

ALL MAJOR INTERNAIONAL MARKETS FOR CANADIAN BEEF CLOSED

OIE Developments

- **establishing criteria for Risk-Assessment-based approach to replace country classification based on incidences of BSE**
- **acknowledges countries' risk mitigation measures and levels of BSE surveillance**
- **categorizes risk levels associated with trade from countries with varying levels of BSE risk**

All countries espouse the principal that trade decisions should be based on science – but reality has proven otherwise.

Canadian Consumer Confidence

- Canada is first country to see beef consumption increase following a BSE incident
- Turning point for the world

Canadian Public Response

- Rallies in support of industry were held across the country
- Beef was consumed and purchased in significant quantities
- Public began to feel angry that Canadian beef was being banned on basis of political intervention

- Consumer confidence testament to transparency and professional communication by government and industry

Canadian consumer confidence records highest levels in history of a country detecting BSE

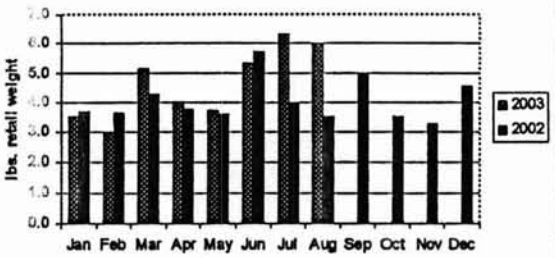
Food inspection agency

88% trust CFIA
86% said Canadian Beef was safe to eat
85% trust CCA
84% trust cattle producers
65% stated they would buy more beef if it would help Canadian beef farmers

No other country in the history of BSE has experienced a subsequent increase in beef consumption.

Transparent and factual communications empower people to make appropriate decisions.

Canadian beef consumption jump 60% and 70% in July & August



- Jump in consumer consumption occurred following:
  - CFIA investigation
  - Implementation of Specified Risk Materials policy

With restored market access, we believe international consumers will openly receive Canadian beef

- Mexico – a case in point: export volumes to Mexico recovered to pre-BSE levels – and reached new highs
- exports going to the Philippines and Macau
- approximately 23 international markets have resumed trade in Canadian beef

"I look forward to the confident resumption in trade of safe Canadian beef products throughout the world."

Ben Thorlakson
Chairman
Canada Beef Export Federation

"I look forward to the confident resumption in trade of safe Canadian beef products throughout the world."

Ben Thorlakson
Chairman
Canada Beef Export Federation

Canada Beef

- End -

Short Term Market Prospects for MERCOSUR Beef

Arturo Llavallol
President of the Argentine Beef Promotion Institute
2nd. Vicepresident of the Sociedad Rural Argentina

Short Term Market Prospects for MERCOSUR Beef

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BEEF AND VEAL
Production - CWT.000

	1997	1998	1999	2000	2001	2002	2003
ARGENTINA	2712	2469	2720	2718	2461	2700	2800
BRASIL	6050	6140	6050	6300	6820	7240	7385
PARAGUAY	226	231	246	238	200	205	215
URUGUAY	468	454	420	450	371	412	424
MERCOSUR	9,456	9,294	9,436	9,706	9,852	10,557	10,824

Source: IEE, SRA based on FAO and USDA

Per Capita Consumption
kgr./inhab /year

	1999	2000	2001	2002
ARGENTINA	67.8	66.5	63.9	59.6
BRASIL	35.5	36.9	35.2	34.9
PARAGUAY	41.0	42.7	43.7	42.0
URUGUAY	56.2	55	57.9	48.6

World average consumption = 9.3 kgr/inhab/year

Source: Argentine Rural Society

MERCOSUR Foreing Trade
in 000 CWT

	1993	1998	1999	2000	2001	2002	2003
• Brasil	448	370	541	554	789	929	1.194
• Argent.	283	291	339	343	150	329	338
• Uruguay	108	279	246	279	177	259	320

Source: IMF - CERA

MERCOSUR Major destinations

Fresh and Frozen	EU
	South America
	Middle East
	the USA
Processed	EU, USA

Source: IMS - GIRA

EU 2003 Beef Major Suppliers

Brazil	55.4 %
Argentina	18 %
Poland	8.6 %
Uruguay	5.3 %
MERCOSUR	78.7 %

Source: EU Beef Forecasting Group

EU BEEF SUPPLY AND DEMAND (CWE 000 tons)

YEAR	PRODUCTION	EXPORTS	CONSUMPTION	SURPLUS/DEFICIT
2002	7450	550	7400	(515)
2003	7350	440	7580	(676)
2004	7280	360	7520	(602)
2005	7100	300	7510	(711)

Source: EU beef Forecasting Group

EU BEEF IMPORTS (CWE 000 tons)

YEAR	TONS
2001	375
2002	475
2003	500
2004	600*
2005	720*

Source: SRA

* Estimates

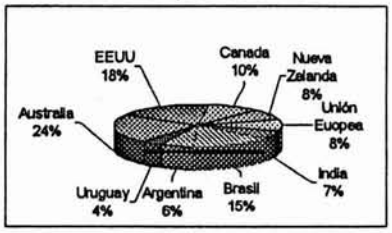
Mercosur - EU
NEW BEEF AGREEMENT

- It is a very important negotiation for MCS
- It is considered sensible by our sector
- EU would give us a new beef quota divided into two fases.

  - Mercosur wants more quota than EU is offering us in only one fase, with zero tariff

  - Negotiation is actually on course and will probably end by October, 2004.

World Market Share
Beef Exports 2002

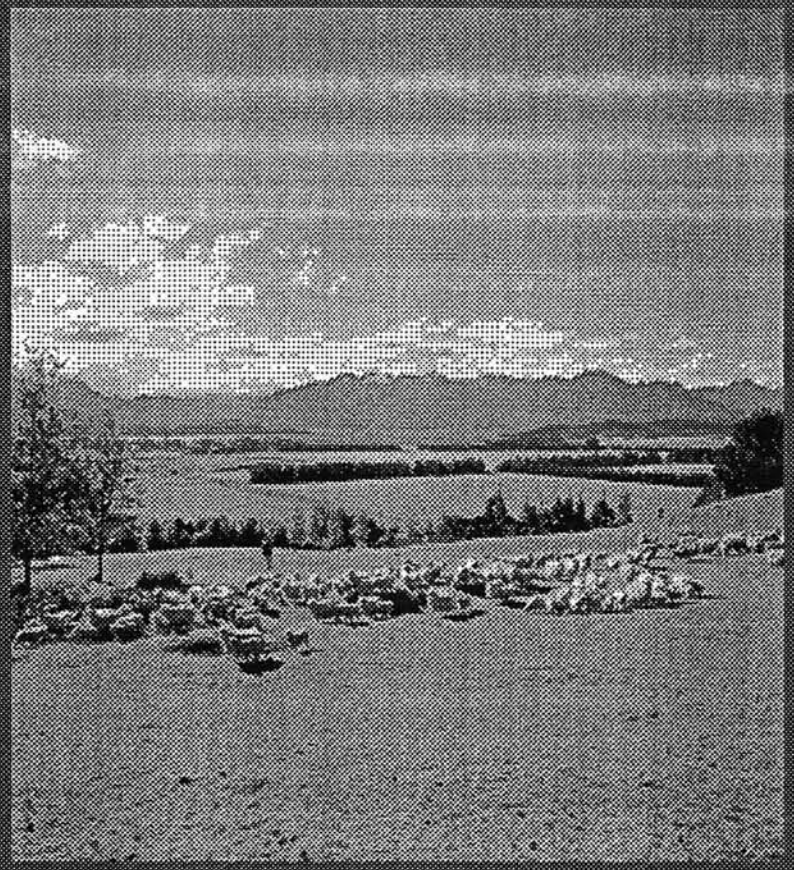


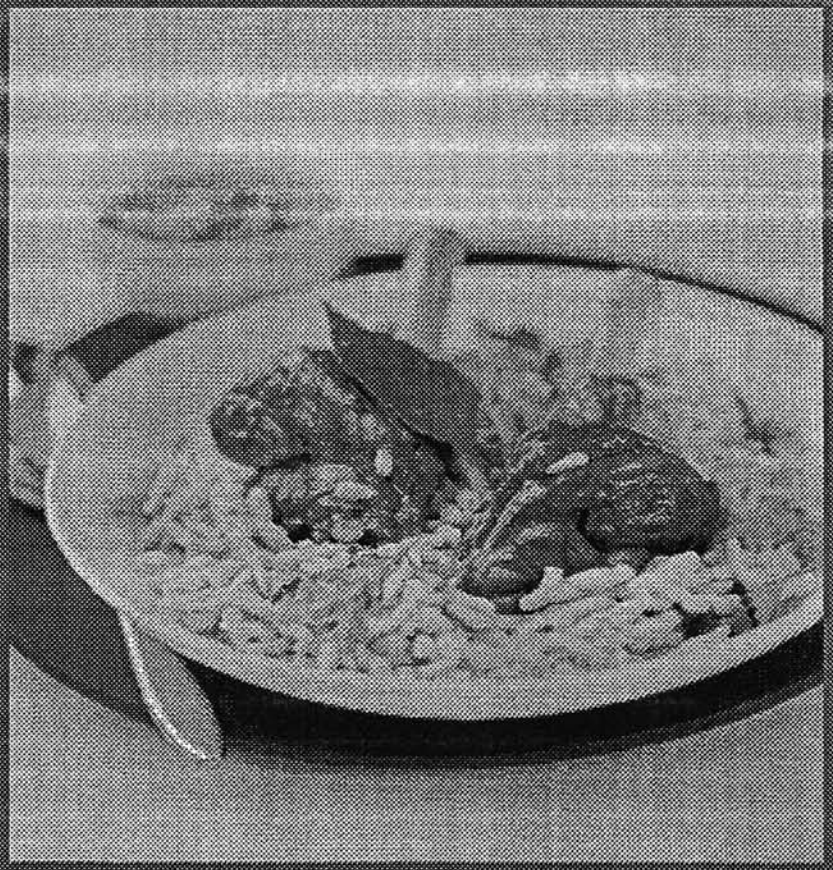
Source:USDA and Institute for Economic Research –Argentine Rural Society

MERCOSUR : 25% of TOTAL

meat NEW ZEALAND

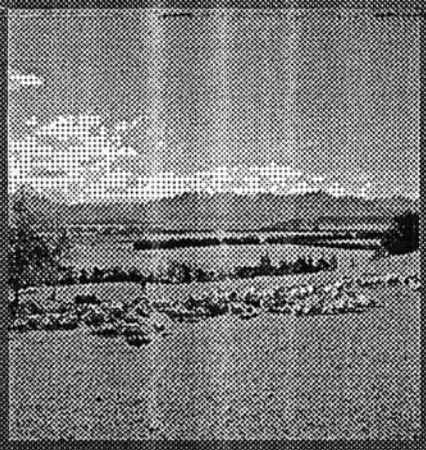
Situation and Outlook





meat NEW ZEALAND

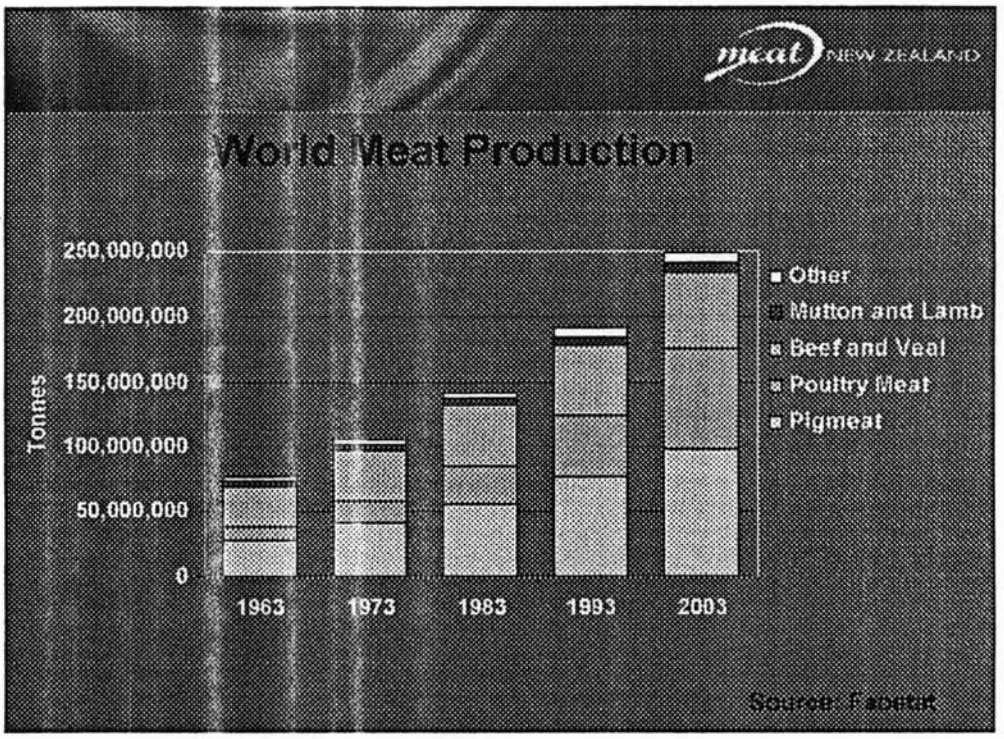
Situation and Outlook

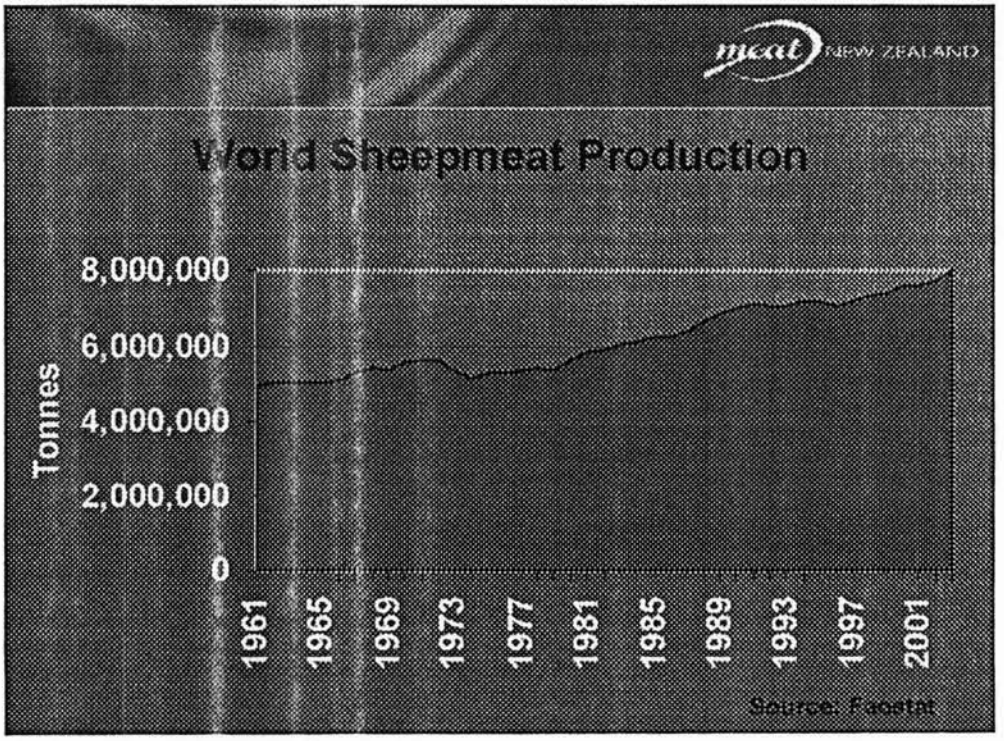


meat NEW ZEALAND

Introduction

- World Meat Production
- World Sheepmeat Production
- World Sheepmeat Exports
- Main Sheepmeat Markets
- World Sheepmeat Production by Country
- Lamb Consumption
- International Meat prices
- Distribution of World Population – the next 10 years
- Distribution of World Income – the next 10 years
- Producer Support Estimates (PSE)
- Country Overviews
- Summary


meat NEW ZEALAND
World Meat Production
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0
Tonnes
1963
1973
1983
1993
2003
Other
Mutton and Lamb
Beef and Veal
Poultry Meat
Pigmeat
Source: Faostat


meat NEW ZEALAND
World Sheepmeat Production
8,000,000
6,000,000
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2,000,000
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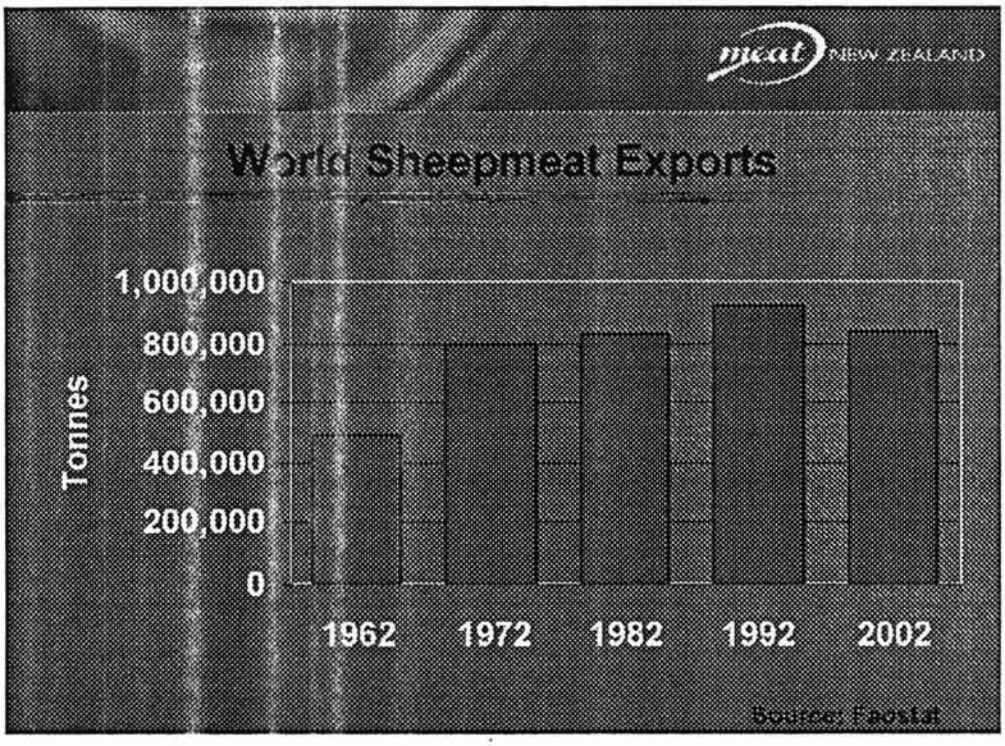
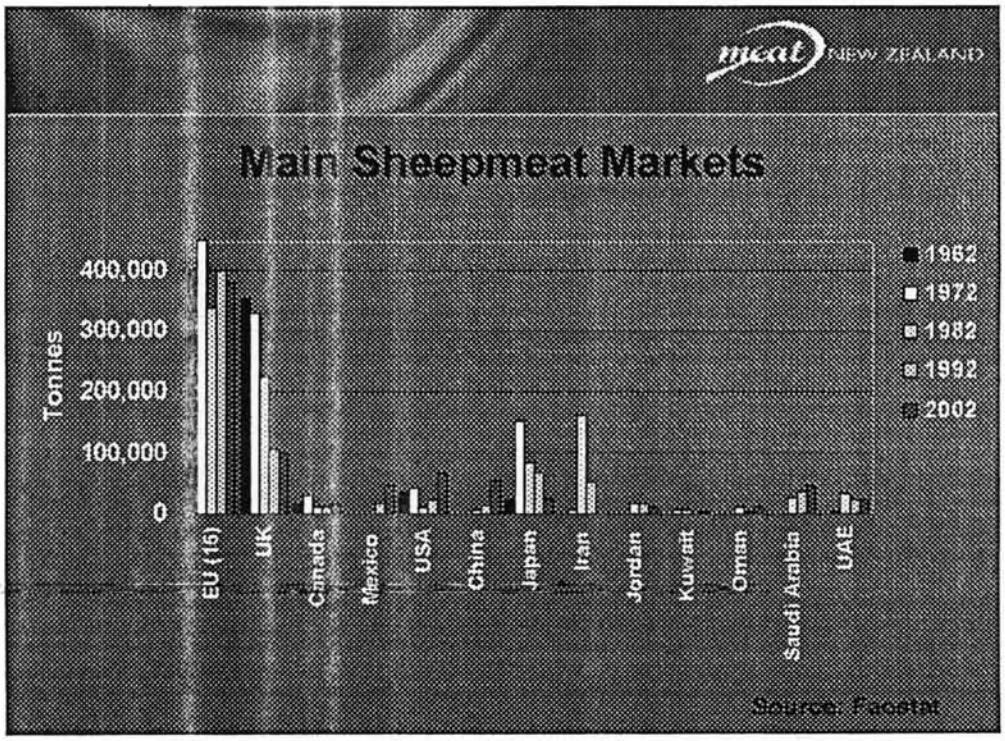
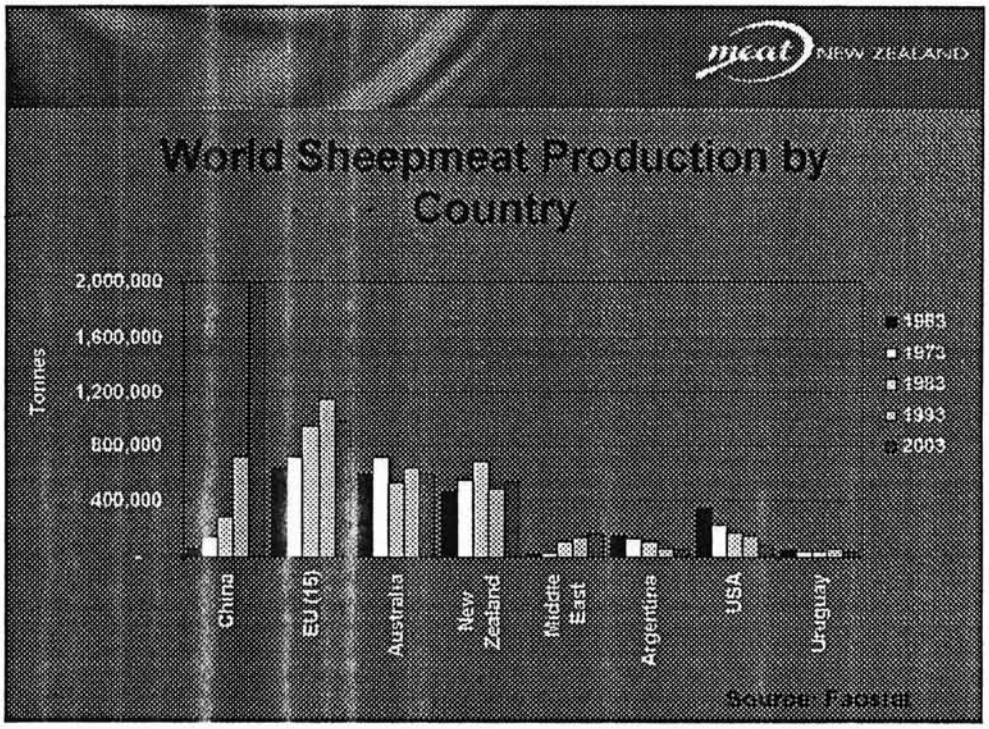
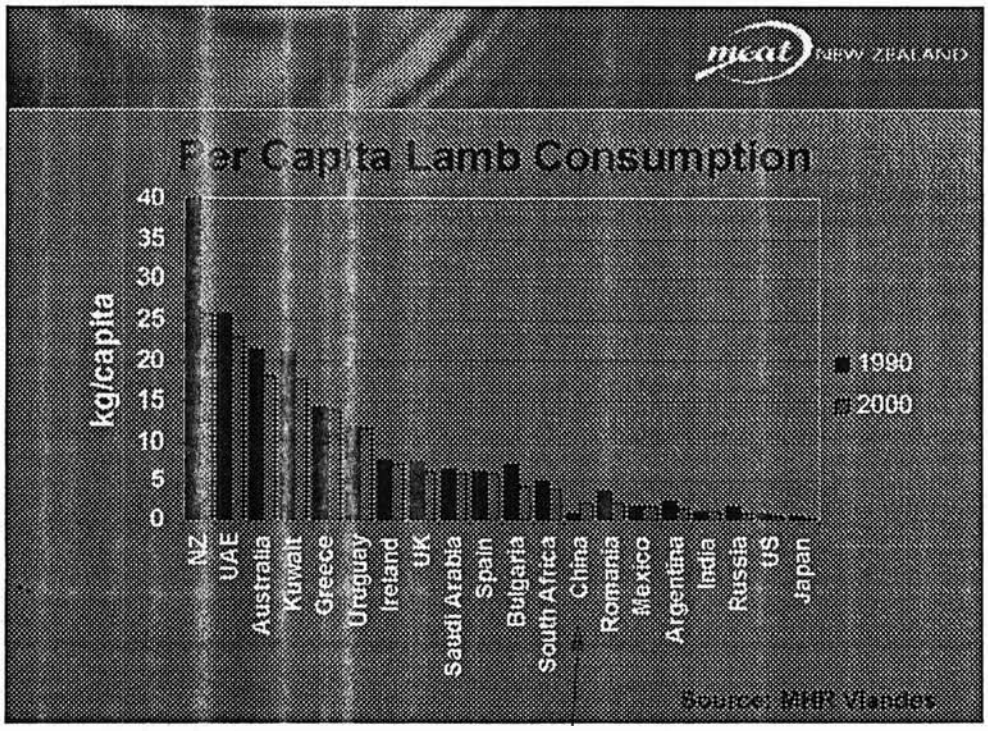
Tonnes
1961
1965
1969
1973
1977
1981
1985
1989
1993
1997
2001
Source: Faostat


meat NEW ZEALAND
World Sheepmeat Exports
Tonnes
1,000,000
800,000
600,000
400,000
200,000
0
1962
1972
1982
1992
2002
Source: Faostat

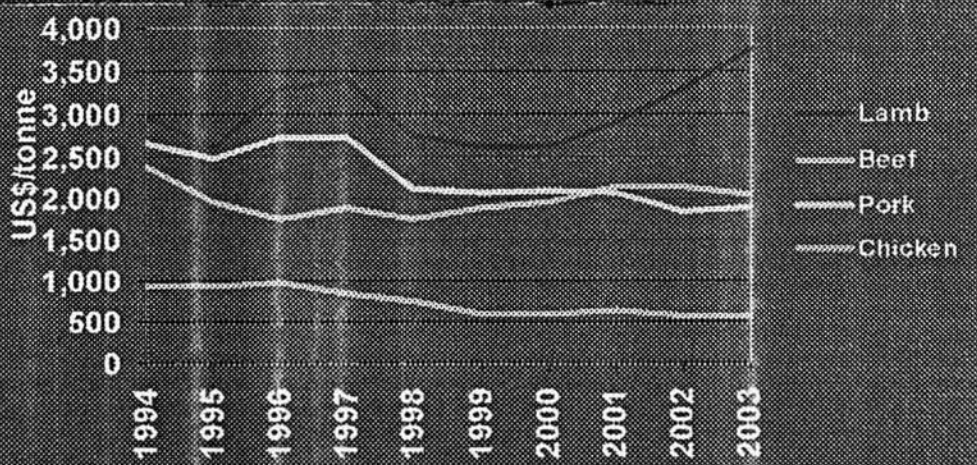

meat NEW ZEALAND
Main Sheepmeat Markets
Tonnes
400,000
300,000
200,000
100,000
0
EU (15)
UK
Canada
Mexico
USA
China
Japan
Iran
Jordan
Kuwait
Oman
Saudi Arabia
UAE
1962
1972
1982
1992
2002
Source: Faostat


meat NEW ZEALAND
World Sheepmeat Production by Country
Tonnes
2,000,000
1,600,000
1,200,000
800,000
400,000
-
China
EU (15)
Australia
New Zealand
Middle East
Argentina
USA
Uruguay
1963
1973
1983
1993
2003
Source: Faostat


meat NEW ZEALAND
Per Capita Lamb Consumption
kg/capita
40
35
30
25
20
15
10
5
0
NZ
UAE
Australia
Kuwait
Greece
Uruguay
Ireland
UK
Saudi Arabia
Spain
Bulgaria
South Africa
China
Romania
Mexico
Argentina
India
Russia
US
Japan
1990
2000
Source: MHR Viandes

meat NEW ZEALAND

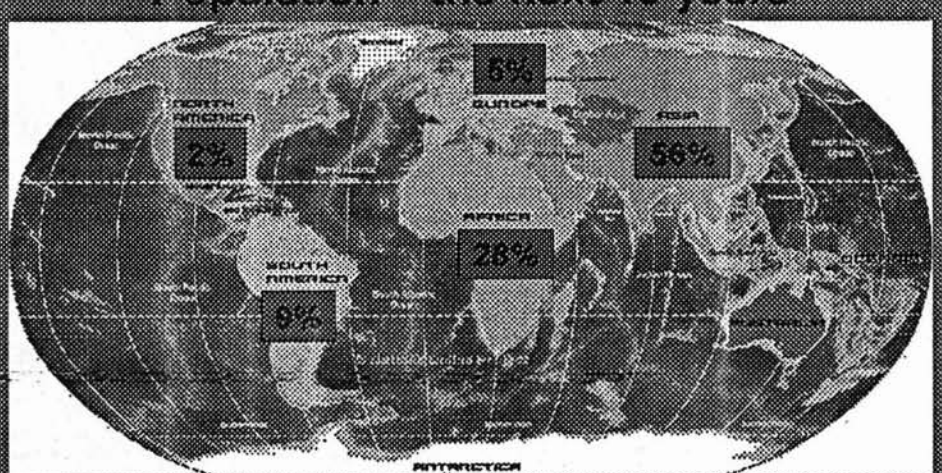
International Meat Prices



Source: Faostat

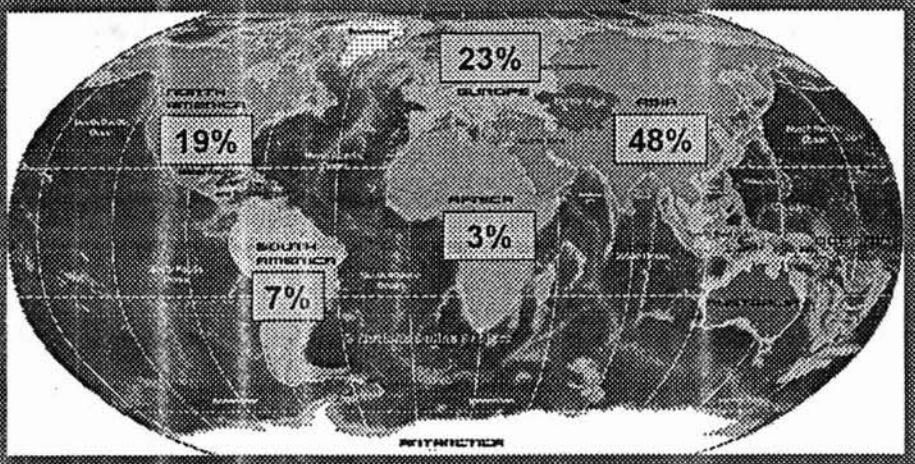
meat NEW ZEALAND

Distribution of Additional World Population – the next 10 years



meat NEW ZEALAND

Distribution of Additional World Income – the next 10 years

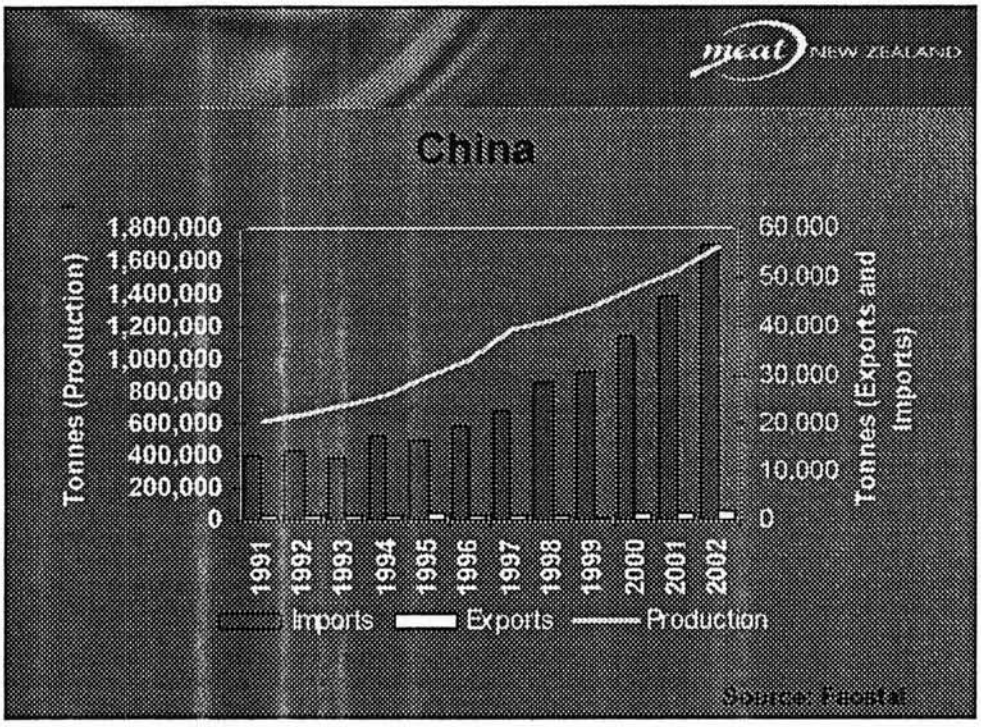


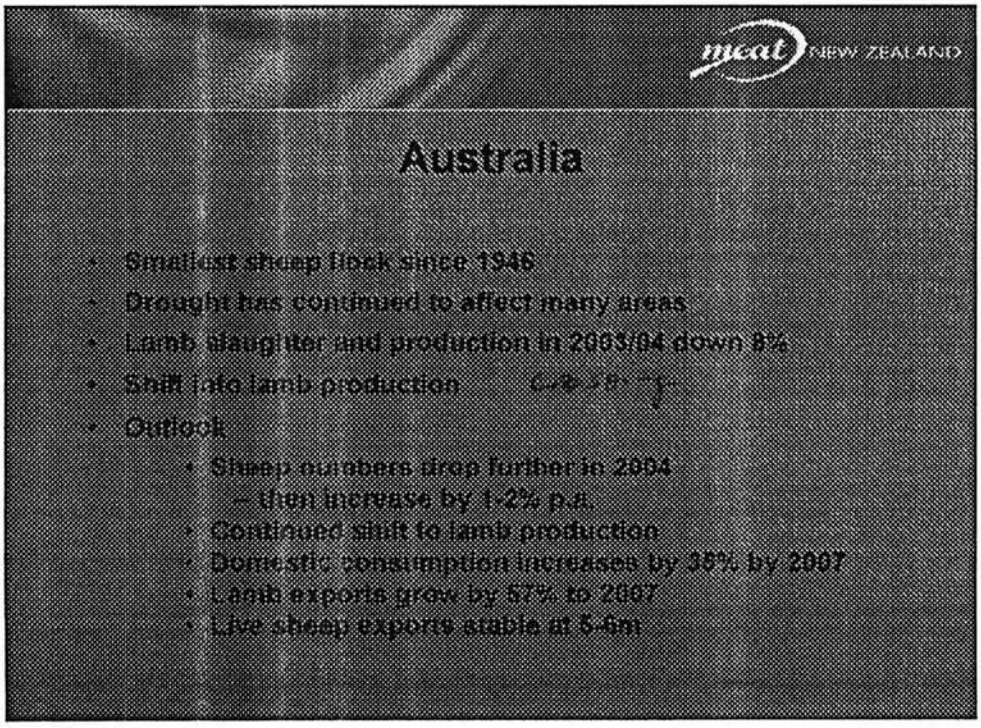
meat NEW ZEALAND

Producer Support Estimate (PSE)

	EU	US	OECD
Sheepmeat	38%	19%	27%
Poultry	38%	5%	18%
Pork	26%	5%	24%
Beef and veal	79%	5%	37%

Source: OECD PSE/CSE Database 2003


meat NEW ZEALAND
China
Tonnes (Production)
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
60,000
50,000
40,000
30,000
20,000
10,000
0
Tonnes (Exports and Imports)
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
Imports
Exports
Production
Source: Faostat


meat NEW ZEALAND
Australia
• Smallest sheep flock since 1946
• Drought has continued to affect many areas
• Lamb slaughter and production in 2003/04 down 8%
• Shift into lamb production
• Outlook
  • Sheep numbers drop further in 2004
    – then increase by 1-2% p.a.
  • Continued shift to lamb production
  • Domestic consumption increases by 35% by 2007
  • Lamb exports grow by 57% to 2007
  • Live sheep exports stable at 5-6m

meat NEW ZEALAND

New Zealand

- Lowest sheep numbers in 48 years
- Spring 2003 Lambing
  - Drought affected, but still second highest on record
  - Lambs born - down 5%
- Lamb slaughter and production in 2003/04
  - Down 8%
  - Lowest since mid 1990s
- Outlook
  - Stable sheep numbers
  - Slight increase in breeding ewes
  - Small increases in production
  - Returns dominated by value of NZD

meat NEW ZEALAND

European Union

- December 2003 sheep census – decline around 1%
- Largest flocks:
  - UK -1% in total <-1% breeding ewes
  - Spain -3% in total -4% breeding ewes
  - France -2% in total -3% breeding ewes
  - Italy down slightly
  - Ireland/Portugal: steady
  - Hungary +16% to 1.3m

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European Union (continued)

- Outlook - influenced by:
  - Tight supplies
  - Rebuilding of flocks post-FMD
  - Impact of CAP reform
  - EU enlargement – minimal impact on production
  - Beef intervention stocks

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United States

- Sheep numbers continue to decline
- Lamb consumption is low ... but steady – per capita
- Imports offset declining production
- Live lamb prices strong, but input prices high – lambs and feed
- Outlook
  - Economic recovery
  - Continued strong lamb meat prices, competition from AU and NZ
  - Impact of LMAAP
  - Challenges in identifying markets for diversification/segmentation

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Summary

- Sheepmeat traditional product
- Lamb has been repositioned
- World supply flat but demand increasing
- Meeting consumer preferences key to success
- Consumers more demanding
- Attention to detail throughout the chain essential
- Integrity vital at all times → [illegible] safety
- Must move increasingly from commodity to added value products

meat NEW ZEALAND

Research and Development

New Zealand

Research and Development

New Zealand

Outcome Areas

- Sheep Genomics
- Greenhouse Gas Reduction
- Farm Health
- Farm Productivity
- Meat Products and Quality
- Wool Products and Quality
- Processing and Harvesting Efficiency
- Information Transfer

Sheep Genomics

- Ovita Limited:
  - Formed by Meat New Zealand, AgResearch and Wool Equities
  - Focus – commercialisation of intellectual property and products derived from genetic research and knowledge of the sheep genome
  - Not involved in the production of GM sheep

Greenhouse Gas Reduction

- Pastoral Greenhouse Gas Research Consortia (PGgRC)
  - Formed by the Sheep, Beef, Goat, Deer and Dairy industries
  - Aims:
    - reduce the emission of methane and nitrous oxide; and
    - Improve animal efficiency
  - Outcome: lower emissions and increased productivity

Farm Health

Major investment programmes are:

- Internal Parasites
  - Methods of controlling drench resistance
- Tannins
  - Solving the agronomy issues of tannin-containing plants
- Johnes Disease
  - Development of a vaccine

Farm Productivity

Major investment programmes are:

- High Performance Sheep Systems
  - Research to maximise sheep production
  - Includes lamb genetics, reproductive efficiency survivability and growth rate
- Forage and Nutrition
  - Tools to get maximum growth rate from pastures
  - Reducing intake of toxic endophytes
  - Improving hill country productivity

Meat Products and Quality

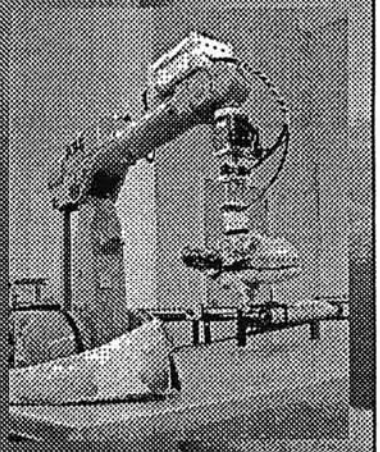
Major investment programmes are:

- Food Safety
- Meat Quality
- Meat Biologics Consortia
  - The consortia will develop new high-value products for human health and nutriceuticals.

Processing and Harvesting Efficiency

Major investment programmes are:

- De-pelting
  - Improved mechanical pelt removal
- Improved co-products returns
  - Improving skin quality
- Automation
  - Automated handling in the boning room



Information Transfer

- Monitor Farm Programme
  - 30 farms
    - Distributed nationally
    - Benchmarked; and
    - Work to improve performance and profitability
- Farmer Initiated Technology Transfer (FITT)
  - Small scale funding for local farmer grou
    research
- Producer Councils
  - Sheep, Beef and Goat

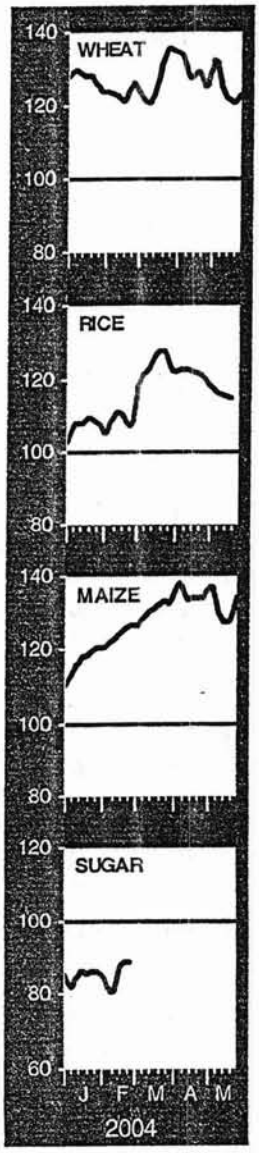
global information and early warning system on food and agriculture

food outlook

No. 2 June 2004

highlights

EXPORT PRICES
(July 2003=100)



FAO's latest forecast of global cereal production in 2004 is 1 956 million tonnes, a substantial increase from the previous year. However, despite a modest expected rise in utilization, the new 2004/05 marketing season may lead to a fifth consecutive annual drawdown of global cereal stocks.

FAO's first forecast of global cereal trade in 2004/05 stands at 229.7 million tonnes, 3 percent down from the previous year. The decline mostly reflects, good crop prospects in traditional importing countries, as well as a strong production recovery in Europe. In the case of rice, trade is also expected to be limited by tight supplies in major exporting countries.

After rising for several months, international prices of most cereals eased back somewhat in recent weeks reflecting generally favourable prospects for the 2004 crops and, for rice, also the release of government stocks onto domestic markets in China and Thailand.

Global cassava production is forecast to expand in 2004, alongside a sharp increase in trade. A tightening of feed grain supplies in China could stimulate cassava imports to the country and could further strengthen international prices.

International meat prices are surging in 2004 as animal disease outbreaks in major meat exporting countries and resulting bans on imports from these areas are reducing exportable supplies.

International prices for dairy products were well above average during the first-half of 2004, as a result of sustained import demand and limited availability of export supplies. For the remainder of the year, prices are expected to remain at or near their current high levels.

International prices in the oilcrop complex have continued to rise strongly in the past few months, being strongly influenced by tight soybean supplies and by slower growth in palm oil production.

World pulse production is forecast to reach a record 60 million tonnes in 2004, which could lead to increased consumption and trade during the year.

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Meat and Meat Products

Meat and meat product prices continue to rise

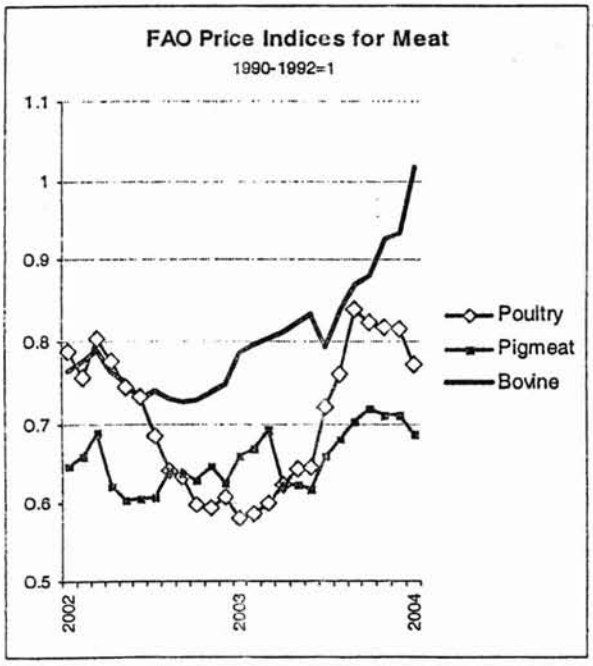
International meat prices are surging in 2004, as animal disease outbreaks in major meat exporting countries and bans on imports from disease afflicted areas are reducing exportable supplies. Expectations of higher international prices for meat came on the heels of rising prices in the previous year. In 2003, the FAO trade-weighted meat price index rose already by 16 percent, as limited meat production gains lifted prices by 42 percent for poultry, 19 percent for beef and 8 percent for pigmeat.

Animal diseases, rising feed prices and considerable uncertainty about consumer demand for meat products are slowing the expansion in global meat output in 2004. Production is expected to rise by 1 percent to 253.6 million tonnes, one of the slowest growths registered in FAO's database. Meat markets have been disrupted by the impact of the avian influenza (AI) which led to increased poultry mortality/culling throughout Asia and parts of North America, and the finding of Bovine Spongiform Encephalopathy (BSE) in North America. In Asia, meat output is expected to increase less than 2 percent, half the average rate of the past five years. Output gains in developed countries are expected to remain stable with a slight increase in North America offset by a decline in Europe. At the world level, per caput meat consumption is expected to remain at 39.9 kg/caput, constrained by high overall meat prices and consumer concerns about the safety of eating poultry, particularly in Asia.

Import bans on meat produced in disease-afflicted countries in early 2004 affected approximately one-third of global meat exports, or 6 million tonnes. While the bans have been temporary, global meat trade, originally forecast to rise in 2004, is now anticipated to slide by 4 percent to 18.4 million tonnes. If confirmed, this would be the first drop in meat trade since the mid-1980s. Over the past four years, alternating disease outbreaks and recoveries have resulted in rapid shortages/increases in exportable meat supplies and considerable international meat price variability. The resulting shift in trading patterns is expected to favour those disease-free meat suppliers in Latin America and Oceania. Exports from Oceania, however, are likely to be constrained in 2004 by low animal inventories and stronger currencies in the region. By contrast, meat exports from South America, which have surged over the past three years, might increase further by about 6 percent in 2004, taking the region's share of meat exports to 27 percent, up from just 16 percent in the early 1990's. Moving into the position as the world's largest meat exporter, Brazil is expected to ship over 3.8 million tonnes of meat in 2004, or 21 percent of global trade.

Limited supplies and high prices depress bovine meat trade prospects

Global bovine meat production is forecast to reach 61.9 million tonnes in 2004, up marginally from the previous year. Low cattle inventories in Oceania, BSE concerns in North America and reduced sector support in the EU are constraining slaughtering, leading to an expected 2 percent drop in bovine meat production in developed countries. By contrast, output in developing regions is anticipated to rise by 3 percent, with continued strong gains foreseen in China, India, the Republic of Korea and Mexico. Per caput beef consumption is set to drop by 1 percent in both developed and developing regions to 22.7 and 6.4 kg/caput, respectively.



Higher prices and import bans on products originating from North America are expected to reduce global beef trade by 8 percent to 5.6 million tonnes. North American exports, totalling 1.5 million tonnes in 2003 and valued at US$4 billion, are expected to plummet by 50 percent. While exports from Canada will recover as the United States lifts import restrictions on Canadian products, United States exports are estimated to decline by 82 percent. As demand for beef from disease-free suppliers surges, shipments from South America might expand by 17 percent, with Brazil's share of global beef shipments rising to 22 percent. However, the gap left by beef trade restrictions on North American products is unlikely to be entirely filled by South American or Oceania. Consequently, purchases by the major importing countries of Japan, Mexico, and the Republic of Korea are projected to fall by 35 percent, 30 percent, and 40 percent respectively. While Indian beef exports are likely to rise by 14 percent, a marginal decline in Australian shipments is anticipated, on account of limited inventories and an appreciating currency. The EU is set to register their second year as a net beef importer as exports decline for the fifth consecutive year.

World Meat Statistics[1/]

	2002	2003 estimate	2004 prelim.
	(. . . . million tonnes . . . .)		
PRODUCTION	**246.3**	**250.4**	**253.6**
Poultry meat	74.6	76.1	77.1
Pig meat	94.2	96.2	97.7
Bovine meat	61.3	61.7	61.9
Sheep & goat meat	11.8	12.0	12.4
Other meat	4.5	4.5	4.5
EXPORTS[2/]	**18.6**	**19.1**	**18.4**
Poultry meat	7.8	7.9	7.6
Pig meat	3.8	4.2	4.3
Bovine meat	5.9	6.1	5.6
Sheep & goat meat	0.7	0.7	0.7
Other meat	0.3	0.3	0.3
PER CAPITA CONSUMPTION	**39.8**	**39.9**	**39.9**
Poultry meat	12.0	12.1	12.2
Pig meat	15.2	15.3	15.4
Bovine meat	9.9	9.9	9.7
Sheep & goat meat	1.9	1.9	2.0
Other meat	0.7	0.7	0.7

Source: FAO Note: Total computed from unrounded data.
1/ For more detailed meat statistics, go to the following web site: http:/www.fao.org/es/ESC/en/20953/21014/index.html
2/ Includes meat (fresh, chilled, frozen prepared and canned) in carcass weight equivalent; excludes live animals, offals and EC (15) intra-trade.

Poultry output edges up but Avian Influenza (AI) cuts into trade prospects

Rising feed prices, AI induced bird mortality and slaughter, combined with consumer responses to the spread of AI is leading to a second year of slow growth in poultry meat output. Production in 2004 is forecast at 77.1 million tonnes, implying an increase of just 1 percent from the previous year, well below the average 5 percent growth of the past five years. Beset by AI outbreaks in early 2004, Asian poultry output is set to drop by 2 percent as disease-afflicted countries, i.e. Thailand, Viet Nam, Japan, the Republic of Korea, and Indonesia, among others, are estimated to have culled over 100 million birds. Recovery in many of these Asian countries, including those not affected by the disease, is constrained by lower prices in the wake of shaken consumer confidence in poultry and rising feed costs. Per caput consumption in the developing countries is forecast to decrease slightly to 8.2 kg/caput, mostly due to an estimated 2-percent decline in Asia. At the global level, per caput consumption, which grew 3 percent annually over the past five years, is expected to remain stable at 12 kg/caput.

Import bans on products originating from the 12 Asian and North American countries that were affected early in 2004 by AI are reducing supplies in world markets and causing international prices to rise. As a result, global trade in poultry products in 2004 is anticipated to contract by 4 percent to 7.6 million tonnes. Led by lower exports from the United States, developed country exports are expected to witness a third year of consecutive decline, sliding 5 percent to an estimated 3.8 million tonnes. Disease outbreaks are restricting Asian poultry exports, supplied by mainly Thailand and China, with shipments from the region forecast to be down by 21 percent. Non-traditional exporters in Asia, such as India, Malaysia, and the Philippines are increasing their exports while exports from Brazil, which have registered double-digit gains over the past 7 years, are expected to rise by a further 10 percent. High prices and consumer concerns are expected to reduce imports by major importers in Asia while trade barriers in the Russian Federation, will cause a further contraction in their imports.

Despite limited pigmeat output gains and higher prices, trade could expand

Low returns to hog producers in the context of higher feed prices are expected to limit growth in global pigmeat production to less than 2 percent in 2004, taking output to 97.7 million tonnes. In many countries, production costs are exceeding market prices as international maize and soybean meal prices have soared 20 percent and 65 percent respectively compared with last year. Lower profitability facing many of the producers in Europe and Brazil, combined with reduced prospects for exports to the Russian Federation, are negatively affecting the production outlook. Developed countries are set to experience a slight decline in output. This is despite, in the United States, a projected rise in output by 3 percent supported by strong consumer demand. In Asia, which accounts for 56 percent of global output, and where AI has bolstered pigmeat prices, output is set to increase by 3 percent. While per caput consumption is moving up in Asia and developing countries by 2 percent in 2004 to nearly 15 kg/caput and 11.8 kg/caput respectively, it remains significantly below the level of 29.2 kg/caput in developed countries.

Trade prospects for pigmeat in 2004 are stronger than for poultry and bovine meats, with exports estimated at 4.3 million tonnes, or 2 percent higher than last year. Much of the increase is expected to be sourced in North America, which typically exports high valued cuts to lucrative Asian markets. Shipments by other traditional exporters are expected to be hampered by trade restrictions in the Russian Federation, which was the world's

largest meat importer until its imposition of tariff rate quotas in 2003. Limited access to the Russian Federation market, where imports are forecast to be down by 12 percent, is set to reduce Brazilian shipments by 40 percent while the elimination of EU export subsidies early this year is forecast to reduce EU exports by 4 percent. By contrast, shipments from Mexico and Chile are anticipated to rise as a result of a trade agreement with Japan where strong consumer demand is bringing about an estimated 12 percent rise in imports, to a new record level. This is despite expectations that the strong import pace might retrigger the pigmeat safeguard, leading to higher tariffs in August.

Output and trade gains for ovine meat to exceed that of other meats

Global ovine meat production is expected to increase by 3 percent in 2004 to 12.4 million tonnes. Growth in Asia, which accounts for more than half of global production, is expected to rise 4 percent, supported by rising output in China. Despite a steady decline in United States output, growth in developed countries should be supported by a recovery of production in Australia, the EU and New Zealand. Global per caput consumption is forecast up 2 percent to 2 kg/caput.

A recovery in drought-affected exportable supplies from Australia and strong supply availability in New Zealand is leading to an estimated 3 percent increase in trade to 696 000 tonnes. Shipments from Oceania, which comprise 90 percent of global exports, are stimulated by higher import demand from the EU, North America, and Mexico.

BOVINE MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	46,695	59,858	59,205	61,284	61,687	61,898	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	23,625	30,063	29,515	30,197	29,728	29,088	50.6	50.2	49.9	49.3	48.2	47.0
Developing countries	23,071	29,795	29,690	31,087	31,959	32,810	49.4	49.8	50.1	50.7	51.8	53.0
UNITED STATES	10,584	12,298	11,983	12,427	12,042	11,510	22.7	20.5	20.2	20.3	19.5	18.6
EU (15)	0	7,437	7,363	7,541	7,440	7,290	0.0	12.4	12.4	12.3	12.1	11.8
BRAZIL	4,807	6,540	6,671	7,136	7,385	7,570	10.3	10.9	11.3	11.6	12.0	12.2
CHINA (MAINLAND)	2,336	5,328	5,488	5,846	6,130	6,500	5.0	8.9	9.3	9.5	9.9	10.5
C.I.S (12)	6,543	3,888	3,763	3,977	4,034	3,919	14.0	6.5	6.4	6.5	6.5	6.3
INDIA	2,632	2,863	2,881	2,906	2,961	3,060	5.6	4.8	4.9	4.7	4.8	4.9
ARGENTINA	2,808	2,716	2,452	2,700	2,800	2,650	6.0	4.5	4.1	4.4	4.5	4.3
AUSTRALIA	1,826	1,988	2,119	2,028	1,935	1,900	3.9	3.3	3.6	3.3	3.1	3.1
MEXICO	1,256	1,409	1,445	1,451	1,452	1,520	2.7	2.4	2.4	2.4	2.4	2.5
CANADA	860	1,264	1,250	1,272	1,245	1,450	1.8	2.1	2.1	2.1	2.0	2.3
OTHERS	13,044	14,125	13,792	14,000	14,262	14,529	27.9	23.6	23.3	22.8	23.1	23.5

BOVINE MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EU I.-t.)	4,665.2	5,475.0	5,430.5	5,833.9	5,986.4	5,495.7	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	3,377.4	3,547.1	3,715.0	3,720.5	3,756.9	3,622.9	72.4	64.8	68.4	63.8	62.8	65.9
Developing countries	1,287.9	1,928.0	1,715.5	2,113.5	2,229.5	1,872.7	27.6	35.2	31.6	36.2	37.2	34.1
UNITED STATES	1,006.0	1,308.1	1,352.5	1,370.5	1,281.0	1,412.0	21.6	23.9	24.9	23.5	21.4	25.7
C.I.S (12)	775.6	389.2	576.2	661.0	657.2	698.3	16.6	7.1	10.6	11.3	11.0	12.7
JAPAN	706.7	964.3	905.8	651.5	772.0	500.0	15.1	17.6	16.7	11.2	12.9	9.1
MEXICO	121.3	392.8	399.0	459.2	425.0	300.0	2.6	7.2	7.3	7.9	7.1	5.5
EU (15) (excl. intra-trade)	390.1	383.0	353.0	451.3	470.0	500.0	8.4	7.0	6.5	7.7	7.9	9.1
KOREA, REP.	131.3	277.2	209.6	370.6	367.0	220.0	2.8	5.1	3.9	6.4	6.1	4.0
CANADA	261.1	263.8	299.9	307.7	280.0	200.0	5.6	4.8	5.5	5.3	4.7	3.6
EGYPT	138.0	199.2	97.6	142.3	130.0	130.0	3.0	3.6	1.8	2.4	2.2	2.4
CHILE	45.7	121.0	115.0	132.8	170.0	180.0	1.0	2.2	2.1	2.3	2.8	3.3
MALAYSIA	67.1	120.7	122.5	127.3	135.0	140.0	1.4	2.2	2.3	2.2	2.3	2.5
OTHERS	1,022.5	1,055.8	999.4	1,159.6	1,299.2	1,215.4	21.9	19.3	18.4	19.9	21.7	22.1

BOVINE MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EU I.-t.)	4,776.5	5,728.4	5,536.9	5,947.8	6,062.3	5,609.0	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	3,654.0	4,218.2	4,085.3	4,139.2	3,787.3	3,000.6	76.5	73.6	73.8	69.6	62.5	53.5
Developing countries	1,122.5	1,510.1	1,451.6	1,808.5	2,275.0	2,608.4	23.5	26.4	26.2	30.4	37.5	46.5
AUSTRALIA	1,058.5	1,208.0	1,265.5	1,236.0	1,130.0	1,128.0	22.2	21.1	22.9	20.8	18.6	20.1
UNITED STATES	541.3	1,165.2	1,010.6	1,071.9	1,105.0	204.0	11.3	20.3	18.3	18.0	18.2	3.6
BRAZIL	302.8	410.8	645.0	757.9	1,050.0	1,230.0	6.3	7.2	11.7	12.7	17.3	21.9
CANADA	185.5	491.6	542.3	579.5	375.0	550.0	3.9	8.6	9.8	9.7	6.2	9.8
EU (15) (excl. intra-trade)	1,064.8	622.6	547.0	480.7	380.0	310.0	22.3	10.9	9.9	8.1	6.3	5.5
NEW ZEALAND	395.0	457.2	449.1	441.4	480.0	490.0	8.3	8.0	8.1	7.4	7.9	8.7
INDIA	101.8	288.2	243.8	298.6	350.0	400.0	2.1	5.0	4.4	5.0	5.8	7.1
ARGENTINA	213.6	301.8	134.6	296.5	320.0	360.0	4.5	5.3	2.4	5.0	5.3	6.4
URUGUAY	81.8	223.6	141.0	204.8	265.0	295.0	1.7	3.9	2.5	3.4	4.4	5.3
C.I.S (12)	233.0	180.4	157.1	190.5	212.6	218.6	4.9	3.2	2.8	3.2	3.5	3.9
OTHERS	598.5	378.9	400.8	389.8	394.7	423.4	12.5	6.6	7.2	6.6	6.5	7.5

BOVINE MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	46,620	59,975	58,903	61,201	61,913	61,786	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	23,382	29,737	28,836	28,863	30,010	29,765	50.2	49.6	49.0	48.8	48.5	48.2
Developing countries	23,239	30,238	30,067	31,338	31,903	32,021	49.8	50.4	51.0	51.2	51.5	51.8
UNITED STATES	11,152	12,389	12,268	12,688	12,296	12,715	23.9	20.7	20.9	20.7	19.9	20.6
EU (15)	-718	7,578	6,940	7,557	7,720	7,494	-1.5	12.6	11.8	12.3	12.5	12.1
BRAZIL	4,534	6,179	6,073	6,444	6,395	6,405	9.7	10.3	10.3	10.5	10.3	10.4
CHINA (MAINLAND)	2,186	5,291	5,441	5,822	6,111	6,469	4.7	8.8	9.2	9.5	9.9	10.5
C.I.S (12)	7,120	4,118	4,186	4,457	4,479	4,399	15.3	6.9	7.1	7.3	7.2	7.1
INDIA	2,531	2,575	2,637	2,608	2,612	2,660	5.4	4.3	4.5	4.3	4.2	4.3
ARGENTINA	2,602	2,431	2,357	2,411	2,492	2,300	5.6	4.1	4.0	3.9	4.0	3.7
MEXICO	1,377	1,791	1,833	1,901	1,865	1,810	3.0	3.0	3.1	3.1	3.0	2.9
JAPAN	1,306	1,482	1,322	1,256	1,328	972	2.8	2.5	2.2	2.1	2.1	1.6
CANADA	945	1,042	1,001	1,008	1,138	1,110	2.0	1.7	1.7	1.6	1.8	1.8
OTHERS	13,585	15,099	14,825	15,050	15,477	15,452	29.1	25.2	25.2	24.6	25.0	25.0

BOVINE MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Bov.Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	8.5	9.9	9.6	9.9	9.9	9.7	29.6	25.7	24.8	24.8	24.7	24.4
Developed countries	18.5	23.0	22.2	22.9	23.0	22.7	35.9	29.0	27.7	27.8	27.9	27.5
Developing countries	5.5	6.4	6.2	6.4	6.4	6.3	25.2	23.1	22.5	22.5	22.3	22.0
ARGENTINA	76.8	65.7	62.9	63.5	64.9	59.2						
URUGUAY	64.1	77.8	52.4	62.0	52.5	49.2						
UNITED STATES	42.6	44.5	43.8	44.9	43.2	44.4						
AUSTRALIA	44.0	41.0	44.9	39.7	41.7	42.1						
NEW ZEALAND	61.2	39.6	46.0	38.5	47.1	43.5						
BRAZIL	29.3	36.3	35.3	37.0	36.2	35.9						
PARAGUAY	42.1	34.4	34.2	36.7	32.0	27.2						
CANADA	32.7	33.5	31.9	31.8	35.6	34.4						
SWAZILAND	24.6	15.7	20.9	21.7	22.8	22.6						
CHILE	19.6	22.8	21.6	21.3	22.7	23.2						
EU (15)	-1.9	20.2	18.5	20.1	20.5	19.9						

OVINE MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	8,796	11,312	11,437	11,767	12,017	12,399	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	2,665	3,348	3,277	3,217	3,194	3,249	30.3	29.6	28.6	27.3	26.6	26.2
Developing countries	6,131	7,964	8,160	8,550	8,823	9,150	69.7	70.4	71.4	72.7	73.4	73.8
CHINA (MAINLAND)	1,373	2,740	2,927	3,167	3,400	3,640	15.6	24.2	25.6	26.9	28.3	29.4
EU (15)	0	1,139	1,023	1,053	1,076	1,085	0.0	10.1	8.9	9.0	9.0	8.8
INDIA	635	696	699	703	707	710	7.2	6.2	6.1	6.0	5.9	5.7
AUSTRALIA	655	691	726	655	560	570	7.4	6.1	6.3	5.6	4.7	4.6
PAKISTAN	595	506	520	532	547	560	6.8	4.5	4.5	4.5	4.6	4.5
NEW ZEALAND	488	534	564	523	549	570	5.5	4.7	4.9	4.4	4.6	4.6
C.I.S (12)	935	509	500	511	515	522	10.6	4.5	4.4	4.3	4.3	4.2
IRAN ISLAMIC REP.	366	436	444	450	455	460	4.2	3.9	3.9	3.8	3.8	3.7
TURKEY	363	374	351	333	325	320	4.1	3.3	3.1	2.8	2.7	2.6
SUDAN	179	261	262	263	265	279	2.0	2.3	2.3	2.2	2.2	2.2
OTHERS	3,206	3,426	3,420	3,578	3,618	3,683	36.5	30.3	29.9	30.4	30.1	29.7

OVINE MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC i.-t.)	621.2	721.9	689.0	686.6	711.9	742.9	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	334.2	401.0	386.2	375.1	375.1	384.3	53.8	55.6	56.0	54.6	52.7	51.7
Developing countries	287.0	320.8	302.9	311.6	336.9	358.6	46.2	44.4	44.0	45.4	47.3	48.3
EU (15) (excl. intra-trade)	198.6	222.0	222.4	223.5	226.0	230.0	32.0	30.8	32.3	32.5	31.7	31.0
UNITED STATES	24.3	60.4	66.8	74.1	78.0	80.0	3.9	8.4	9.7	10.8	11.0	10.8
MEXICO	21.0	44.7	48.9	47.0	55.0	60.0	3.4	6.2	7.1	6.8	7.7	8.1
SAUDI ARABIA	32.9	57.2	45.3	47.0	47.0	47.0	5.3	7.9	6.6	6.8	6.6	6.3
PAPUA NEW GUINEA	41.0	35.7	29.3	21.5	25.0	30.0	6.6	4.9	4.3	3.1	3.5	4.0
JAPAN	56.3	27.2	26.8	25.0	20.0	20.0	9.1	3.8	3.9	3.6	2.8	2.7
CHINA (TAIWAN PROV.)	15.3	21.6	21.8	27.3	30.0	30.0	2.5	3.0	3.2	4.0	4.2	4.0
CANADA	13.1	16.3	17.2	17.0	17.0	17.0	2.1	2.3	2.5	2.5	2.4	2.3
SOUTH AFRICA	5.9	53.2	34.2	16.4	13.0	15.0	0.9	7.4	5.0	2.2	1.8	2.0
UNIT. ARAB EMIR.	20.9	16.4	14.9	21.3	23.0	25.0	3.4	2.3	2.2	3.1	3.2	3.4
OTHERS	191.7	167.3	161.5	167.7	177.9	188.9	30.9	23.2	23.4	24.4	25.0	25.4

OVINE MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC i.-t.)	677.3	765.3	715.8	699.3	677.2	696.1	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	612.0	710.0	675.5	657.2	625.8	642.2	90.4	92.8	94.4	94.0	92.4	92.3
Developing countries	65.3	55.3	40.3	42.0	51.4	53.9	9.6	7.2	5.6	6.0	7.6	7.7
NEW ZEALAND	359.1	380.1	346.4	341.7	356.0	370.0	53.0	49.7	48.4	48.9	52.6	53.2
AUSTRALIA	221.2	310.7	306.5	294.6	250.0	252.0	32.7	40.6	42.8	42.1	36.9	36.2
URUGUAY	10.9	16.5	9.0	6.8	6.5	7.2	1.6	2.2	1.3	0.8	1.0	1.0
INDIA	11.0	11.9	3.5	6.0	6.0	7.0	1.6	1.6	0.5	0.7	0.9	1.0
OTHERS	75.0	46.1	50.3	52.2	58.7	59.9	11.1	6.0	7.0	7.5	8.7	8.6

OVINE MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	8,750	11,263	11,427	11,754	12,057	12,446	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	2,390	3,034	3,004	2,936	2,948	2,991	27.3	26.9	26.3	25.0	24.4	24.0
Developing countries	6,360	8,229	8,423	8,818	9,109	9,455	72.7	73.1	73.7	75.0	75.6	76.0
CHINA (MAINLAND)	1,371	2,754	2,950	3,199	3,428	3,665	15.7	24.4	25.8	27.2	28.4	29.4
EU (15)	195	1,357	1,242	1,273	1,300	1,313	2.2	12.0	10.9	10.8	10.8	10.5
INDIA	624	684	696	698	701	703	7.1	6.1	6.1	5.9	5.8	5.6
PAKISTAN	595	503	519	531	546	559	6.8	4.5	4.5	4.5	4.5	4.5
C.I.S (12)	942	512	503	515	519	526	10.8	4.5	4.4	4.4	4.3	4.2
IRAN ISLAMIC REP.	391	436	444	450	455	461	4.5	3.9	3.9	3.8	3.8	3.7
AUSTRALIA	434	378	422	361	311	319	5.0	3.4	3.7	3.1	2.6	2.6
TURKEY	359	373	351	332	323	318	4.1	3.3	3.1	2.8	2.7	2.6
NIGERIA	178	234	229	239	241	242	2.0	2.1	2.0	2.0	2.0	1.9
ALGERIA	178	182	178	195	203	218	2.0	1.6	1.6	1.7	1.7	1.8
OTHERS	3,484	3,850	3,895	3,961	4,030	4,122	39.8	34.2	34.1	33.7	33.4	33.1

OVINE MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Ov.Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	1.6	1.9	1.9	1.9	1.9	2.0	5.6	4.8	4.8	4.8	4.8	4.9
Developed countries	1.9	2.3	2.3	2.3	2.3	2.3	3.7	3.0	2.9	2.7	2.7	2.8
Developing countries	1.5	1.7	1.7	1.8	1.8	1.9	6.9	6.3	6.3	6.3	6.4	6.5
NEW ZEALAND	38.5	40.8	60.3	47.1	50.3	50.7						
ICELAND	29.7	29.9	25.1	25.1	24.3	24.1						
TONGA	35.1	29.5	26.5	25.0	21.3	20.2						
KUWAIT	16.1	20.3	17.9	18.7	18.8	18.5						
AUSTRALIA	24.7	20.0	22.2	18.7	16.0	16.3						
QATAR	19.5	15.8	19.6	21.4	22.3	22.0						
SAMOA	18.3	8.9	13.7	14.7	12.2	11.2						
UNIT. ARAB EMIR.	24.2	16.5	15.1	16.8	16.6	17.2						
FIJI	15.6	15.0	12.8	11.8	12.9	12.8						
URUGUAY	16.8	10.3	12.5	12.5	12.8	13.1						

PIG MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000 %	2001 %	2002 %	2003 %	2004 %
WORLD	58,550	89,497	91,178	94,185	96,150	97,726	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	20,190	37,643	37,315	38,175	38,638	38,579	34.5	42.1	40.9	40.5	40.2	39.5
Developing countries	38,361	51,853	53,863	56,010	57,513	59,147	65.5	57.9	59.1	59.5	59.8	60.5
CHINA (MAINLAND)	28,544	40,314	41,845	43,266	44,600	45,940	48.8	45.0	45.9	45.9	46.4	47.0
EU (15)	0	17,679	17,675	18,004	17,986	17,800	0.0	19.8	19.4	19.1	18.7	18.2
UNITED STATES	7,751	8,597	8,691	8,930	9,075	9,302	13.2	9.6	9.5	9.5	9.4	9.5
C.I.S (12)	4,113	2,816	2,703	2,759	2,853	2,917	7.0	3.1	3.0	2.9	3.0	3.0
BRAZIL	1,250	1,888	1,968	2,100	2,100	2,050	2.1	2.1	2.2	2.2	2.2	2.1
VIET NAM	878	1,409	1,515	1,654	1,795	1,900	1.5	1.6	1.7	1.8	1.9	1.9
POLAND	1,903	1,923	1,849	2,023	2,200	2,050	3.3	2.1	2.0	2.1	2.3	2.1
MEXICO	822	1,030	1,058	1,070	1,084	1,135	1.4	1.2	1.2	1.1	1.1	1.2
CANADA	1,194	1,641	1,729	1,854	1,910	1,920	2.0	1.8	1.9	2.0	2.0	2.0
JAPAN	1,440	1,271	1,242	1,244	1,260	1,270	2.5	1.4	1.4	1.3	1.3	1.3
OTHERS	10,656	10,930	10,903	11,281	11,286	11,442	18.2	12.2	12.0	12.0	11.7	11.7

PIG MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC i.-t.)	1,807.4	3,282.0	3,475.4	4,107.7	4,185.3	4,273.3	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	1,434.8	2,075.8	2,349.2	2,850.1	2,712.7	2,730.8	79.4	63.2	67.6	69.4	64.8	63.9
Developing countries	372.6	1,206.2	1,126.2	1,257.6	1,472.6	1,542.5	20.6	36.8	32.4	30.6	35.2	36.1
JAPAN	496.1	889.8	961.4	1,046.0	890.0	1,000.0	27.5	27.1	27.7	25.5	21.3	23.4
C.I.S (12)	373.7	267.6	437.2	670.6	588.7	622.8	20.7	8.2	12.6	16.3	14.1	12.2
UNITED STATES	326.2	435.6	428.0	480.2	532.0	507.0	18.1	13.3	12.3	11.7	12.7	11.9
MEXICO	92.9	245.5	262.6	288.9	340.0	345.0	5.1	7.5	7.6	7.0	8.1	8.1
HONG KONG	94.7	225.9	238.8	247.8	275.0	300.0	5.2	6.9	6.9	6.0	6.6	7.0
KOREA, REP.	6.0	172.3	125.3	155.4	153.0	170.0	0.3	5.2	3.6	3.8	3.7	4.0
CANADA	25.3	72.6	93.6	94.8	97.0	105.0	1.4	2.2	2.7	2.3	2.3	2.5
ARGENTINA	28.6	62.8	58.0	11.8	45.0	25.0	1.6	1.9	1.7	0.3	1.1	0.6
POLAND	59.3	40.6	22.4	50.0	35.0	35.0	3.3	1.2	0.6	1.2	0.8	0.8
SLOVENIA	24.9	15.7	24.9	25.8	30.0	20.0	1.4	0.5	0.7	0.6	0.7	0.5
OTHERS	279.7	853.6	823.1	1,036.5	1,199.6	1,243.6	15.5	26.0	23.7	25.2	28.7	29.1

PIG MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC i.-t.)	1,894.8	3,226.5	3,293.8	3,809.2	4,186.5	4,271.3	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	1,373.1	2,748.3	2,547.9	2,746.4	3,003.2	3,162.1	72.5	85.2	77.4	72.1	71.7	74.0
Developing countries	521.7	478.1	745.9	1,062.8	1,183.3	1,109.1	27.5	14.8	22.6	27.9	28.3	26.0
EU (15) (excl. intra-trade)	690.9	1,187.8	910.7	990.7	985.0	950.0	36.5	36.8	27.6	26.0	23.5	22.2
CANADA	274.5	595.7	659.1	772.5	900.0	975.0	14.5	18.5	20.0	20.3	21.5	22.8
UNITED STATES	182.2	580.1	628.9	652.6	696.0	788.0	9.6	18.0	19.1	17.1	16.6	18.4
BRAZIL	47.8	153.3	297.2	511.4	530.0	320.0	2.5	4.8	9.0	13.4	12.7	7.5
CHINA (MAINLAND)	169.9	139.8	213.7	290.4	380.0	470.0	9.0	4.3	6.5	7.6	9.1	11.0
HUNGARY	72.2	150.6	126.9	114.3	115.0	120.0	3.8	4.7	3.9	3.0	2.7	2.8
AUSTRALIA	7.8	41.0	55.5	65.6	65.0	64.0	0.4	1.3	1.7	1.7	1.6	1.5
MEXICO	4.3	56.3	58.9	61.0	60.0	75.0	0.2	1.7	1.8	1.6	1.4	1.8
POLAND	13.2	117.9	74.9	54.9	140.0	140.0	0.7	3.7	2.3	1.4	3.3	3.3
KOREA, REP.	13.7	30.0	40.0	20.7	22.0	25.0	0.7	0.9	1.2	0.5	0.5	0.6
OTHERS	418.2	174.0	228.0	275.2	293.5	344.3	22.1	5.4	6.9	7.2	7.0	8.1

PIG MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	58,495	90,200	91,319	94,286	96,210	97,845	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	20,284	37,733	37,054	38,173	38,398	38,240	34.7	41.8	40.6	40.5	39.9	39.1
Developing countries	38,212	52,468	54,265	56,113	57,812	59,606	65.3	58.2	59.4	59.5	60.1	60.9
CHINA (MAINLAND)	28,374	40,340	41,746	43,151	44,400	45,655	48.5	44.7	45.7	45.8	46.1	46.7
EU (15)	-569	17,291	16,828	17,045	17,101	16,922	-1.0	19.2	18.4	18.1	17.8	17.3
UNITED STATES	7,884	8,457	8,464	8,759	8,912	9,053	13.5	9.4	9.3	9.3	9.3	9.3
C.I.S (12)	4,448	3,061	3,107	3,393	3,406	3,401	7.6	3.4	3.4	3.6	3.5	3.5
JAPAN	1,935	2,124	2,158	2,269	2,129	2,289	3.3	2.4	2.4	2.4	2.2	2.3
POLAND	1,907	1,870	1,803	1,985	2,119	1,968	3.3	2.1	2.0	2.1	2.2	2.0
VIET NAM	858	1,397	1,488	1,642	1,790	1,890	1.5	1.5	1.6	1.7	1.9	1.9
BRAZIL	1,203	1,714	1,697	1,589	1,570	1,730	2.1	1.9	1.9	1.7	1.6	1.8
PHILIPPINES	731	1,047	1,093	1,372	1,188	1,214	1.2	1.2	1.2	1.5	1.2	1.2
CANADA	945	1,116	1,152	1,167	1,121	1,050	1.6	1.2	1.3	1.2	1.2	1.1
OTHERS	10,778	11,783	11,783	11,915	12,472	12,674	18.4	13.1	12.9	12.6	13.0	13.0

PIG MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Pig Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	10.6	14.9	14.9	15.2	15.3	15.4	37.2	38.6	38.4	38.2	38.4	38.6
Developed countries	16.1	29.1	28.5	29.3	29.4	29.2	31.1	36.8	35.6	35.6	35.7	35.4
Developing countries	9.0	11.0	11.2	11.5	11.6	11.8	41.5	40.0	40.5	40.3	40.5	41.0
CYPRUS	53.8	63.7	62.1	62.9	63.4	64.0						
HONG KONG	39.2	50.1	51.2	51.7	52.3	54.8						
POLAND	49.6	48.2	46.5	51.1	54.5	50.6						
HUNGARY	62.0	50.8	43.7	49.9	45.9	44.5						
EU (15)	-1.5	46.1	44.8	45.3	45.5	45.0						
CHINA (TAIWAN PROV.)	43.1	43.2	43.3	42.2	42.0	42.8						
CANADA	32.7	35.8	36.6	36.8	35.0	32.5						
SWITZERLAND	37.6	32.8	32.9	33.2	33.1	33.7						
SINGAPORE	33.0	25.4	25.1	25.7	29.6	32.0						
PARAGUAY	27.7	27.1	26.9	15.2	15.4	16.6						

POULTRY MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000 %	2001 %	2002 %	2003 %	2004 %
WORLD	40,784	68,963	71,473	74,591	76,072	77,122	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	19,270	32,629	33,736	34,915	35,038	35,801	47.2	47.3	47.2	46.8	46.1	46.4
Developing countries	21,515	36,334	37,737	39,676	41,035	41,321	52.8	52.7	52.8	53.2	53.9	53.6
UNITED STATES	12,440	16,416	16,813	17,516	17,700	18,200	30.5	23.8	23.5	23.5	23.3	23.6
CHINA (MAINLAND)	5,736	12,075	12,103	12,620	13,150	13,150	14.1	17.5	16.9	16.9	17.3	17.1
EU (15)	0	8,801	9,018	8,927	8,615	8,700	0.0	12.8	12.6	12.0	11.3	11.3
BRAZIL	3,235	6,125	6,395	7,229	7,387	7,835	7.9	8.9	8.9	9.7	9.7	10.2
MEXICO	1,071	1,863	1,976	2,123	2,182	2,300	2.6	2.7	2.8	2.8	2.9	3.0
C.I.S (12)	1,996	1,134	1,300	1,463	1,621	1,723	4.9	1.6	1.8	2.0	2.1	2.2
THAILAND	1,056	1,194	1,336	1,413	1,413	1,000	2.6	1.7	1.9	1.9	1.9	1.3
JAPAN	1,318	1,195	1,216	1,229	1,218	1,200	3.2	1.7	1.7	1.6	1.6	1.6
CANADA	773	1,064	1,110	1,111	1,091	1,100	1.9	1.5	1.6	1.5	1.4	1.4
ARGENTINA	713	1,000	993	973	975	980	1.7	1.5	1.4	1.3	1.3	1.3
OTHERS	12,447	18,096	19,213	19,987	20,720	20,934	30.5	26.2	26.9	26.8	27.2	27.1

POULTRY MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	2,710.1	7,362.9	7,720.0	7,843.2	7,859.4	7,582.3	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	1,134.4	3,381.3	3,822.3	3,969.0	3,903.3	3,588.5	41.9	45.9	49.5	50.6	49.7	47.3
Developing countries	1,575.7	3,981.6	3,897.7	3,874.2	3,956.1	3,993.8	58.1	54.1	50.5	49.4	50.3	52.7
C.I.S (12)	196.2	1,439.3	1,646.9	1,671.0	1,485.4	1,371.5	7.2	19.5	21.3	21.3	18.9	18.1
JAPAN	436.3	807.3	807.3	859.7	810.0	650.0	16.1	11.0	10.5	11.0	10.3	8.6
HONG KONG	362.7	1,088.5	966.6	935.2	700.0	750.0	13.4	14.8	12.5	10.6	8.9	9.9
EU (15) (excl. intra-trade)	201.0	384.9	669.0	631.0	750.0	660.0	7.4	5.2	8.7	8.0	9.5	8.7
CHINA (MAINLAND)	99.7	850.3	707.2	574.5	570.0	430.0	3.7	11.5	9.2	7.3	7.3	5.7
MEXICO	192.4	362.0	388.4	399.3	436.0	450.0	7.1	4.9	5.0	5.1	5.6	5.9
SAUDI ARABIA	170.0	350.0	403.0	395.0	405.0	410.0	6.3	4.8	5.2	5.0	5.2	5.4
CANADA	68.6	127.8	132.0	147.3	150.0	155.0	2.5	1.7	1.7	1.9	1.9	2.0
UNIT. ARAB EMIR.	75.0	110.9	131.0	133.4	138.0	140.0	2.8	1.5	1.7	1.7	1.8	1.8
LATVIA	0.4	154.0	58.9	61.0	63.0	65.0	0.0	2.1	0.8	0.8	0.8	0.9
OTHERS	907.9	1,688.0	1,809.7	2,135.8	2,351.9	2,500.8	33.5	22.9	23.4	27.2	29.9	33.0

POULTRY MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC I.-t.)	3,020.9	7,298.8	7,843.5	7,826.4	7,924.8	7,587.2	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	1,942.4	4,451.2	4,554.1	4,232.0	4,038.9	3,848.8	64.3	61.0	58.1	54.1	51.0	50.7
Developing countries	1,078.5	2,847.6	3,289.4	3,594.4	3,885.8	3,738.4	35.7	39.0	41.9	45.9	49.0	49.3
UNITED STATES	1,090.6	2,911.8	3,171.4	2,696.9	2,757.0	2,480.0	36.1	39.9	40.4	34.3	34.8	32.7
BRAZIL	526.2	964.8	1,343.6	1,726.3	2,100.0	2,300.0	17.4	13.2	17.1	22.1	26.5	30.3
EU (15) (excl. intra-trade)	643.2	1,019.6	961.3	1,086.8	800.0	850.0	21.3	14.0	12.3	13.9	10.1	11.2
HONG KONG	169.7	812.4	692.9	588.0	495.0	470.0	5.6	11.1	8.8	7.5	6.2	6.2
CHINA (MAINLAND)	113.6	548.9	580.8	560.3	500.0	425.0	3.8	7.5	7.4	7.2	6.3	5.6
THAILAND	177.6	395.6	511.3	552.0	585.0	325.0	5.9	5.4	6.5	7.1	7.4	4.3
HUNGARY	77.4	121.8	131.9	134.0	120.0	140.0	2.6	1.7	1.7	1.7	1.5	1.8
CANADA	14.8	84.3	97.5	114.5	100.0	105.0	0.5	1.2	1.2	1.5	1.3	1.4
POLAND	15.0	49.0	51.5	44.6	77.0	85.0	0.5	0.7	0.7	0.6	1.0	1.1
LATVIA	0.1	154.0	20.0	30.0	30.0	30.0	0.0	2.1	0.3	0.4	0.4	0.4
OTHERS	192.5	236.5	281.2	303.1	360.8	377.2	6.4	3.2	3.6	3.9	4.6	5.0

POULTRY MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	40,398	68,934	71,311	74,473	76,106	77,215	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	18,391	31,491	32,938	34,563	35,022	35,610	45.5	45.7	46.2	46.4	46.0	46.1
Developing countries	22,007	37,444	38,372	39,910	41,084	41,605	54.5	54.3	53.8	53.6	54.0	53.9
UNITED STATES	11,303	13,529	13,710	14,798	15,037	15,774	28.0	19.6	19.2	19.9	19.8	20.4
CHINA (MAINLAND)	5,722	12,376	12,229	12,634	13,220	13,155	14.2	18.0	17.1	17.0	17.4	17.0
EU (15)	-442	8,166	8,725	8,471	8,565	8,510	-1.1	11.8	12.2	11.4	11.3	11.0
BRAZIL	2,709	5,160	5,048	5,503	5,288	5,535	6.7	7.5	7.1	7.4	6.9	7.2
C.I.S (12)	2,191	2,541	2,821	3,117	3,125	3,132	5.4	3.7	4.0	4.2	4.1	4.1
MEXICO	1,261	2,214	2,354	2,515	2,612	2,744	3.1	3.2	3.3	3.4	3.4	3.6
JAPAN	1,749	1,977	2,037	2,068	2,043	1,846	4.3	2.9	2.9	2.8	2.7	2.4
CANADA	825	1,106	1,133	1,143	1,147	1,150	2.0	1.6	1.6	1.5	1.5	1.5
MALAYSIA	641	801	816	878	933	938	1.6	1.2	1.1	1.2	1.2	1.2
THAILAND	878	792	843	921	809	706	2.2	1.1	1.2	1.1	1.1	0.9
OTHERS	13,561	20,271	21,595	22,524	23,326	23,725	33.6	29.4	30.3	30.2	30.6	30.7

POULTRY MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Poul.Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	7.3	11.4	11.6	12.0	12.1	12.2	25.7	29.5	30.0	30.2	30.4	30.4
Developed countries	14.6	24.3	25.4	26.5	26.8	27.2	28.2	30.7	31.7	32.2	32.6	33.0
Developing countries	5.2	7.9	7.9	8.1	8.3	8.2	23.9	28.6	28.7	28.7	28.8	28.6
QATAR	32.9	47.3	53.6	51.6	54.1	61.1						
ISRAEL	43.4	64.5	69.2	69.2	67.0	66.1						
UNIT. ARAB EMIR.	31.2	56.6	63.9	58.7	59.8	64.1						
KUWAIT	37.6	46.4	52.7	47.0	47.1	49.4						
UNITED STATES	43.2	48.6	48.9	52.4	52.9	55.1						
SINGAPORE	36.2	47.6	45.3	46.1	49.2	48.4						
HONG KONG	45.2	49.5	47.7	43.3	36.8	46.7						
CYPRUS	37.2	43.8	44.9	41.6	39.4	40.6						
VENEZUELA	17.6	27.8	35.5	36.1	35.5	35.3						
BRAZIL	17.5	30.3	29.3	31.6	30.0	31.0						

OTHER MEAT: PRODUCTION (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000 %	2001 %	2002 %	2003 %	2004 %
WORLD	3,051	4,282	4,503	4,493	4,452	4,456	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	695	1,582	1,597	1,586	1,554	1,531	22.8	37.0	35.5	35.3	34.9	34.4
Developing countries	2,356	2,700	2,906	2,907	2,898	2,925	77.2	63.0	64.5	64.7	65.1	65.6
CHINA (MAINLAND)	573	797	976	971	965	960	18.8	18.6	21.7	21.6	21.7	21.5
EU (15)	0	927	947	921	900	880	0.0	21.6	21.0	20.5	20.2	19.7
UNITED STATES	257	237	234	234	222	220	8.4	5.5	5.2	5.2	5.0	4.9
CONGO, DEM. REP.	126	144	144	144	144	149	4.1	3.4	3.2	3.2	3.2	3.3
INDIA	131	138	140	140	140	140	4.3	3.2	3.1	3.1	3.2	3.1
ETHIOPIA	127	126	128	128	128	128	4.2	2.9	2.8	2.8	2.9	2.9
ARGENTINA	108	117	117	118	118	113	3.5	2.7	2.6	2.6	2.7	2.5
NIGERIA	100	100	100	100	100	100	3.3	2.3	2.2	2.2	2.2	2.2
GHANA	90	90	90	90	90	90	2.9	2.1	2.0	2.0	2.0	2.0
MEXICO	97	83	83	83	85	87	3.2	1.9	1.8	1.8	1.9	2.0
OTHERS	1,443	1,523	1,544	1,564	1,559	1,589	47.3	35.6	34.3	34.8	35.0	35.7

OTHER MEAT: IMPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC i.-t.)	274.5	267.0	414.3	372.1	370.0	374.4	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	214.5	195.9	323.5	247.6	259.4	260.8	7.0	4.6	7.2	5.5	5.8	5.9
Developing countries	60.0	71.1	90.8	124.5	110.6	113.6	2.0	1.7	2.0	2.8	2.5	2.5
EU (15) (excl. intra-trade)	159.3	132.1	260.4	178.1	180.0	180.0	58.0	49.5	62.9	47.9	48.7	48.1
MEXICO	15.7	36.5	51.2	55.0	55.0	55.0	5.7	13.7	12.4	14.8	14.9	14.7
C.I.S (12)	1.2	25.0	22.5	30.0	39.8	40.7	0.4	9.4	5.4	8.1	10.8	10.9
SWITZERLAND	11.5	11.3	12.6	12.1	11.8	11.9	4.2	4.2	3.0	3.2	3.2	3.2
JAPAN	33.5	14.3	14.0	10.7	11.0	11.0	12.2	5.3	3.4	2.9	3.0	2.9
KOREA, REP	1.1	3.8	4.6	5.0	5.0	5.0	0.4	1.4	1.1	1.3	1.4	1.3
HONG KONG	6.7	5.6	4.7	4.0	4.0	4.0	2.5	2.1	1.1	1.1	1.1	1.1
CANADA	1.0	2.0	2.4	3.1	3.0	3.0	0.3	0.8	0.6	0.8	0.8	0.8
CZECK, REP	0.8	2.1	2.5	2.5	3.0	3.2	0.3	0.8	0.6	0.7	0.8	0.8
SAUDI ARABIA	1.0	2.9	1.0	1.5	1.5	1.5	0.4	1.1	0.2	0.4	0.4	0.4
OTHERS	42.7	31.5	38.3	70.1	55.9	59.1	15.5	11.8	9.3	18.8	15.1	15.8

OTHER MEAT: EXPORT (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD (excl. EC i.-t.)	261.6	236.3	270.0	290.1	272.2	278.5	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	146.1	123.5	132.4	110.1	108.1	108.9	4.8	2.9	2.9	2.4	2.4	2.4
Developing countries	115.5	112.8	137.6	180.0	164.1	169.6	3.8	2.6	3.1	4.0	3.7	3.8
CHINA (MAINLAND)	39.4	44.6	56.3	60.0	65.0	65.0	15.1	18.9	20.9	20.7	23.9	23.3
ARGENTINA	38.2	32.2	32.1	37.7	38.0	40.0	14.6	13.6	11.9	13.0	14.0	14.4
UNITED STATES	44.9	36.1	40.8	21.8	22.0	22.0	17.2	15.3	15.1	7.5	8.1	7.9
AUSTRALIA	10.6	18.4	20.0	20.0	20.0	20.0	4.1	7.8	7.4	6.9	7.3	7.2
NEW ZEALAND	15.2	17.5	19.1	19.0	19.0	19.0	5.8	7.4	7.1	6.5	7.0	6.8
BRAZIL	15.7	15.1	18.7	19.0	19.0	19.0	6.0	6.4	6.9	6.5	7.0	6.8
EU (15) (excl. intra-trade)	16.1	5.6	6.4	6.2	6.0	6.0	6.1	2.4	2.4	2.1	2.2	2.2
CANADA	18.8	15.1	15.7	13.3	13.0	13.0	7.2	6.4	5.8	4.6	4.8	4.7
POLAND	11.9	12.7	9.8	10.0	10.0	10.0	4.5	5.4	3.6	3.4	3.7	3.6
HUNGARY	16.6	5.3	7.3	7.3	7.0	7.0	6.3	2.2	2.7	2.5	2.6	2.5
OTHERS	34.2	33.7	43.8	75.8	53.2	57.5	13.1	14.3	16.2	26.1	19.6	20.6

OTHER MEAT : APPAR. CONSUMPT. (000 mt - CWE)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
WORLD	3,062	4,313	4,647	4,575	4,550	4,552	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries	761	1,655	1,788	1,723	1,705	1,683	25.0	38.6	39.7	38.4	38.3	37.8
Developing countries	2,301	2,658	2,859	2,851	2,845	2,869	75.4	62.1	63.5	63.5	63.9	64.4
EU (15)	143	1,053	1,201	1,093	1,074	1,054	4.7	24.4	25.8	23.9	23.6	23.2
CHINA (MAINLAND)	534	753	920	911	900	895	17.4	17.5	19.8	19.9	19.8	19.7
C.I.S (12)	210	203	203	231	245	239	6.8	4.7	4.4	5.1	5.4	5.3
UNITED STATES	214	206	198	218	206	204	7.0	4.8	4.3	4.8	4.5	4.5
CONGO, DEM. REP.	126	144	144	144	144	149	4.1	3.3	3.1	3.1	3.2	3.3
INDIA	131	138	140	140	140	140	4.3	3.2	3.0	3.1	3.1	3.1
MEXICO	111	117	132	136	138	140	3.6	2.7	2.8	3.0	3.0	3.1
SAUDI ARAB.	52	52	51	51	51	48	1.7	1.2	1.1	1.1	1.1	1.1
CZECH, REP	31	38	39	39	40	42	1.0	0.9	0.8	0.9	0.9	0.9
PERU	37	32	32	33	34	32	1.2	0.7	0.7	0.7	0.8	0.7
OTHERS	1,474	1,576	1,587	1,578	1,576	1,608	48.1	36.5	34.1	34.5	34.6	35.3

OTHER MEAT : P/C CONSUMPT. (Kg / head -)	1993	2000	2001	2002	2003	2004	1993	2000	2001	2002	2003	2004
							Oth.Meat P/C Cons. as a % of Tot.Meat P/C Consump.					
WORLD	0.6	0.7	0.8	0.7	0.7	0.7	1.9	1.8	2.0	1.9	1.8	1.8
Developed countries	0.6	1.3	1.4	1.3	1.3	1.3	1.2	1.6	1.7	1.6	1.6	1.6
Developing countries	0.5	0.6	0.6	0.6	0.6	0.6	2.5	2.0	2.1	2.0	2.0	2.0
UNIT. ARAB EMIR	7.7	6.4	6.3	6.1	6.0	6.5						
REUNION	6.0	5.9	6.0	6.1	6.0	6.1						
QATAR	2.7	2.7	2.5	3.6	3.0	3.0						
CYPRUS	1.2	1.7	1.9	1.7	1.8	1.8						
HONG KONG	1.9	1.6	1.5	1.4	1.3	1.3						
UNITED STATES	0.8	0.7	0.7	0.8	0.7	0.7						
SINGAPORE	0.0	0.3	0.9	0.8	0.8	0.9						
KUWAIT	0.4	0.4	0.4	0.2	0.2	0.2						

MEAT PRODUCTION

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	Million tons - CWE				Million tons - CWE				Million tons - CWE				Million tons - CWE				Million tons - CWE			
World	59.2	61.3	61.7	61.9	11.4	11.8	12.0	12.4	91.2	94.2	96.2	97.7	71.5	74.6	76.1	77.1	237.8	246.3	250.4	253.6
Africa	4.4	4.5	4.5	4.6	1.9	1.9	1.9	2.0	0.7	0.7	0.7	0.8	3.2	3.3	3.3	3.4	11.5	11.6	11.7	12.0
Egypt	0.6	0.6	0.6	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.6	0.7	0.7	0.7	1.4	1.5	1.5	1.5
Nigeria	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.0	1.1	1.1	1.1
South Africa	0.6	0.6	0.6	0.6	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.8	0.8	0.9	0.9	1.7	1.7	1.7	1.7
Others	2.9	3.0	3.0	3.1	1.4	1.4	1.4	1.5	0.4	0.5	0.5	0.5	1.6	1.6	1.6	1.7	7.3	7.4	7.5	7.7
North & Central America	15.2	15.7	15.3	15.1	0.2	0.2	0.2	0.2	11.8	12.2	12.4	12.7	20.9	21.8	22.0	22.6	48.5	50.2	50.3	51.0
Canada	1.2	1.3	1.2	1.5	0.0	0.0	0.0	0.0	1.7	1.9	1.9	1.9	1.1	1.1	1.1	1.1	4.1	4.3	4.3	4.5
Mexico	1.4	1.5	1.5	1.5	0.1	0.1	0.1	0.1	1.1	1.1	1.1	1.1	2.0	2.1	2.2	2.3	4.6	4.8	4.9	5.1
USA	12.0	12.4	12.0	11.6	0.1	0.1	0.1	0.1	8.7	8.9	9.1	9.3	16.8	17.5	17.7	18.2	37.8	39.2	39.1	39.3
Others	0.6	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.4	1.0	1.0	1.0	1.0	1.9	1.9	2.0	2.0
South America	11.5	12.3	12.7	12.8	0.3	0.3	0.3	0.4	3.1	3.3	3.3	3.3	10.3	11.2	11.4	11.9	25.5	27.4	28.0	28.6
Argentina	2.5	2.7	2.8	2.7	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	1.0	1.0	1.0	1.0	3.8	4.1	4.2	4.0
Brazil	6.7	7.1	7.4	7.6	0.1	0.1	0.1	0.1	2.0	2.1	2.1	2.1	6.4	7.2	7.4	7.8	15.2	16.6	17.0	17.6
Colombia	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.6	0.6	0.6	0.6	1.4	1.4	1.4	1.4
Uruguay	0.3	0.4	0.4	0.5	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.5	0.5	0.6	0.6
Others	1.4	1.4	1.4	1.4	0.1	0.1	0.1	0.1	0.8	0.8	0.9	0.9	2.3	2.3	2.4	2.4	4.6	4.7	4.8	5.0
Asia 2/	13.8	14.4	14.8	15.4	6.3	6.7	6.9	7.2	50.2	52.2	53.6	55.2	23.8	24.7	25.7	25.2	95.5	99.3	102.4	104.4
China, Mainland	5.5	5.8	6.1	6.5	2.9	3.2	3.4	3.6	41.8	43.3	44.6	45.9	12.1	12.6	13.2	13.2	63.3	65.9	68.2	70.2
India	2.9	2.9	3.0	3.1	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	1.3	1.4	1.6	1.8	5.6	5.8	6.0	6.3
Japan	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	1.2	1.2	1.3	1.3	1.2	1.2	1.2	1.2	2.9	3.0	3.0	3.0
Pakistan	0.9	0.9	1.0	1.0	0.5	0.5	0.5	0.6	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.4	1.8	1.8	1.9	1.9
Thailand	0.2	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.3	1.4	1.4	1.0	2.1	2.2	2.2	1.8
Others	3.8	3.9	4.0	4.0	2.1	2.3	2.2	2.3	6.1	6.5	6.6	6.8	7.6	7.6	7.9	7.8	19.9	20.7	21.0	21.2
Europe 3/	11.5	11.7	11.7	11.4	1.4	1.4	1.5	1.5	24.8	25.3	25.5	25.2	12.5	12.8	12.8	13.0	51.3	52.4	52.6	52.3
EU (15)	7.4	7.5	7.4	7.3	1.0	1.1	1.1	1.1	17.7	18.0	18.0	17.8	9.0	8.9	8.6	8.7	36.0	36.4	36.0	35.8
Other West Europe	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.7	0.8	0.8	0.8
Hungary	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.1	1.1
Poland	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0	1.8	2.0	2.2	2.1	0.7	0.9	0.9	0.9	2.9	3.2	3.4	3.2
Romania	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.5	0.5	0.5	0.3	0.3	0.4	0.4	1.0	1.0	1.1	1.1
Other East Europe	0.5	0.4	0.4	0.4	0.1	0.1	0.1	0.1	1.4	1.2	1.2	1.2	0.6	0.7	0.8	0.8	2.6	2.5	2.6	2.6
Oceania	2.7	2.6	2.6	2.6	1.3	1.2	1.1	1.1	0.5	0.5	0.5	0.5	0.8	0.8	0.9	0.9	5.4	5.2	5.2	5.2
Australia	2.1	2.0	1.9	1.9	0.7	0.7	0.6	0.6	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7	3.9	3.8	3.6	3.6
New Zealand	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	1.3	1.3	1.4	1.4
CIS (12)	3.8	4.0	4.0	3.9	0.5	0.5	0.5	0.5	2.7	2.8	2.9	2.9	1.3	1.5	1.6	1.7	8.4	8.9	9.2	9.3
Developed countries	29.5	30.2	29.7	29.1	3.3	3.2	3.2	3.2	37.3	38.2	38.6	38.6	33.7	34.9	35.0	35.8	105.4	108.1	108.2	108.2
Developing countries	29.7	31.1	32.0	32.8	8.2	8.6	8.8	9.2	53.9	56.0	57.5	59.1	37.7	39.7	41.0	41.3	132.4	138.2	142.2	145.4

1/ Including Other Meat
2/ Including CIS countries in Asia
3/ Including Baltic States & CIS countries in Europe.

MEAT IMPORTS

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE			
World 2/	5430.5	5833.9	5986.4	5495.7	689.0	686.6	711.9	742.9	3475.4	4107.7	4185.3	4273.3	7720.0	7843.2	7859.4	7582.3	17729.2	18843.6	19113.0	18468.6
Africa	208.8	288.0	272.0	268.8	47.9	30.3	28.4	32.4	55.8	61.6	78.9	76.5	363.5	455.5	516.0	527.1	690.4	879.9	924.9	937.9
Angola	35.2	44.9	30.0	30.0	0.3	0.1	0.2	0.2	17.0	23.0	28.0	20.0	52.0	81.0	85.0	80.0	104.5	149.0	143.2	130.2
Egypt	97.6	142.3	130.0	130.0	2.0	0.7	1.0	1.0	0.0	0.1	0.1	0.1	4.4	5.4	7.0	7.0	104.1	148.8	138.5	138.5
South Africa	25.9	30.5	35.0	28.0	34.2	15.4	13.0	15.0	9.1	9.1	16.0	18.0	71.0	90.0	100.0	100.0	140.4	145.3	164.3	161.3
Others	50.1	70.3	77.0	80.8	11.5	14.1	14.2	16.2	29.7	29.3	34.8	38.4	236.1	279.2	324.0	340.1	341.4	436.7	479.0	508.0
North & Central America	2118.7	2208.1	2064.4	1993.1	146.1	149.8	162.7	170.6	863.9	937.9	1066.3	1059.2	820.3	913.7	997.5	1066.2	4011.7	4278.1	4359.5	4357.8
Canada	299.9	307.7	280.0	200.0	17.2	17.0	17.0	17.0	93.6	94.8	97.0	105.0	132.0	147.3	150.0	155.0	545.2	570.0	547.0	480.0
Mexico	399.0	459.2	425.0	300.0	48.9	47.0	55.0	60.0	262.6	288.9	340.0	345.0	388.4	399.3	436.0	450.0	1150.1	1249.3	1311.0	1210.0
USA	1352.5	1370.5	1281.0	1412.0	66.8	74.1	78.0	80.0	428.0	480.2	532.0	507.0	28.2	32.9	33.0	37.0	1880.0	1963.5	1930.0	2042.0
Others	67.4	70.7	78.4	81.1	13.1	11.7	12.7	13.6	79.7	74.0	97.3	102.2	271.6	334.2	378.5	424.2	436.4	495.3	571.5	625.8
South America	183.7	228.6	269.7	287.7	5.3	3.7	5.4	6.4	80.0	30.9	62.3	47.4	95.0	65.6	83.2	95.2	365.7	330.1	422.4	438.5
Argentina	13.6	7.1	12.0	10.0	1.1	1.0	1.0	1.0	58.0	11.8	45.0	25.0	26.7	1.2	10.0	15.0	99.6	21.2	68.2	51.2
Brazil	38.5	65.7	60.0	65.0	3.6	2.5	4.0	5.0	0.3	0.2	0.0	0.0	0.2	0.2	0.2	0.2	43.1	69.1	64.6	70.6
Chile	115.0	132.8	170.0	180.0	0.0	0.0	0.0	0.0	0.5	1.0	0.0	0.0	0.3	0.2	0.0	0.0	115.9	134.0	170.2	180.2
Others	16.6	23.0	27.7	32.7	0.6	0.2	0.4	0.4	21.2	17.8	17.3	22.4	67.8	64.0	73.0	80.0	107.1	105.8	119.4	136.5
Asia 3/	1867.5	1843.9	2092.4	1575.6	204.0	223.3	228.5	237.5	1624.1	1861.2	1808.4	1998.6	3753.3	3688.0	3584.9	3399.0	7483.4	7645.2	7744.6	7241.4
China , Mainland	5.6	15.0	18.0	8.0	25.4	34.9	32.0	30.0	115.1	175.1	180.0	185.0	707.2	574.5	570.0	430.0	853.7	799.9	800.4	653.4
China, Province of Taiwan	72.9	83.6	90.0	75.0	21.8	27.3	30.0	30.0	11.4	22.9	45.0	50.0	17.0	31.2	48.0	62.0	123.2	165.2	213.3	217.3
China, Hong Kong SAR	74.5	83.4	90.0	60.0	5.5	6.5	8.0	10.0	238.8	247.8	275.0	300.0	966.6	835.2	700.0	750.0	1290.1	1176.8	1077.0	1124.0
Japan	905.8	651.5	772.0	500.0	26.8	25.0	20.0	20.0	961.4	1046.0	890.0	1000.0	807.3	859.7	810.0	650.0	2715.2	2592.9	2503.0	2181.0
Korea, Rep. of	209.6	370.6	367.0	220.0	2.2	3.1	5.0	6.0	125.3	155.4	153.0	170.0	149.9	158.0	150.0	140.0	491.7	692.1	680.0	541.0
Saudi Arabia	36.8	65.0	80.0	50.0	45.3	47.0	47.0	47.0	2.8	3.0	3.0	3.0	403.0	395.0	405.0	410.0	488.9	511.4	536.5	511.5
Others	562.3	574.9	675.4	662.6	77.1	79.6	86.5	94.5	169.3	211.0	262.4	290.6	702.2	834.5	901.9	957.0	1520.6	1706.9	1934.5	2013.3
Europe 2/ 4/	1006.4	1216.9	1234.6	1320.5	235.6	238.1	241.3	245.6	785.5	1132.8	1070.0	994.0	2650.0	2682.6	2633.3	2449.3	4975.9	5497.1	5415.6	5247.0
EU (15) 2/	353.0	451.3	470.0	500.0	222.4	223.5	226.0	230.0	64.0	62.3	70.0	72.0	669.0	631.0	750.0	660.0	1568.8	1546.2	1696.0	1642.0
Other West Europe	19.5	25.8	29.0	33.0	8.5	8.9	9.0	9.0	14.6	15.3	20.0	26.0	49.6	48.4	52.3	57.3	106.3	111.7	123.4	138.5
Bulgaria	19.6	27.9	26.0	25.0	0.0	0.0	0.1	0.1	18.4	20.8	28.0	32.0	28.9	29.5	28.0	27.0	67.6	78.4	82.8	84.8
Poland	0.4	1.5	2.0	8.0	0.0	0.1	0.1	0.1	22.4	50.0	35.0	35.0	89.9	99.0	80.0	100.0	112.8	150.6	117.1	143.1
Romania	14.1	8.7	7.0	5.0	0.0	0.0	0.0	0.0	54.1	84.8	55.0	35.0	74.0	91.1	110.0	115.0	142.2	184.6	172.0	155.0
Other East Europe	50.4	73.8	87.2	96.0	1.0	1.3	1.6	1.9	160.0	203.5	244.0	239.0	125.7	157.1	190.0	201.0	341.3	440.6	527.3	542.7
Oceania	42.5	45.7	50.5	47.2	50.7	41.8	46.2	51.0	63.0	80.5	96.5	94.6	36.3	34.8	42.4	43.1	195.3	205.1	238.7	238.3
Australia	4.3	4.3	3.0	2.0	0.3	0.5	1.0	1.0	34.7	48.4	60.0	58.0	1.0	1.3	1.5	1.5	40.7	54.8	65.8	62.8
New Zealand	11.2	16.9	20.0	17.0	3.5	3.0	3.0	3.0	17.0	21.4	25.0	25.0	0.6	1.0	1.0	1.0	32.5	42.5	49.2	46.2
Papua New Guinea	10.7	7.7	10.0	10.0	29.3	21.5	25.0	30.0	1.1	1.0	1.0	1.0	0.1	0.4	0.4	0.4	41.3	31.2	37.1	41.4
CIS (12)	576.2	661.0	657.2	698.3	4.0	4.9	4.6	5.6	437.2	670.6	588.7	522.8	1646.9	1671.0	1485.4	1371.5	2686.8	3037.4	2775.7	2638.8
Russian Federation	535.7	614.8	600.0	640.0	3.4	4.3	4.0	4.0	405.7	640.0	550.0	480.0	1389.8	1380.8	1140.0	1050.0	2342.3	2668.8	2324.0	2204.0
Uzbekistan	6.0	6.0	7.0	8.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	22.0	30.0	40.0	50.0	31.0	37.0	49.9	61.2
Other CIS	35.6	40.2	50.2	50.3	0.6	0.6	0.6	1.6	30.5	29.5	37.7	41.8	235.1	260.2	305.4	271.5	313.4	331.6	401.8	373.7
Developed countries 2/	3715.0	3720.5	3756.9	3622.9	386.2	375.1	375.1	384.3	2349.2	2850.1	2712.7	2730.8	3822.3	3969.0	3903.3	3588.5	10596.2	11162.2	11007.3	10587.3
Developing countries	1715.5	2113.5	2229.5	1872.7	302.9	311.6	336.9	358.6	1126.2	1257.6	1472.6	1542.5	3897.7	3874.2	3956.1	3993.8	7133.0	7681.5	8105.6	7881.3

1/ Including Other Meat
2/ Excluding EU (15) intra-trade
3/ Including CIS countries in Asia
4/ Including Baltic States & CIS countries in Europe.

MEAT EXPORTS

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE				Thousand tons - CWE			
World 2/	5536.9	5947.8	6062.3	5609.0	715.8	699.3	677.2	696.1	3293.8	3809.2	4186.5	4271.3	7843.5	7826.4	7924.8	7587.2	17659.9	18572.7	19123.1	18442.0
Africa	62.3	51.3	47.1	46.3	12.0	15.8	16.9	15.6	2.7	6.0	5.2	6.7	20.4	23.5	24.7	27.5	111.3	131.2	115.8	121.0
Botswana	27.3	13.2	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.4	13.3	9.2	9.0
Namibia	25.9	23.3	20.0	18.0	6.6	6.3	6.0	6.0	0.6	0.6	0.6	1.0	0.0	0.1	0.7	0.7	33.7	31.5	28.5	27.1
Others	9.0	14.8	18.1	19.3	5.4	9.5	10.9	9.6	2.1	5.4	4.6	5.7	20.4	23.4	24.0	26.8	50.2	86.4	78.1	84.9
North & Central America	1620.6	1739.5	1577.1	856.2	3.9	3.7	3.5	3.5	1352.2	1491.1	1661.9	1844.5	3285.3	2812.1	2869.4	2599.6	6321.2	6084.6	6149.8	5341.6
Canada	542.3	579.5	375.0	550.0	0.3	0.3	0.4	0.4	659.1	772.5	900.0	975.0	97.5	114.5	100.0	105.0	1314.9	1480.0	1388.4	1643.4
Nicaragua	31.7	46.4	50.0	50.0	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.5	0.0	0.2	0.5	1.0	32.2	47.4	51.4	52.0
USA	1010.6	1071.9	1105.0	204.0	3.6	3.4	3.0	3.0	628.9	652.6	696.0	788.0	3171.4	2686.9	2757.0	2480.0	4855.3	4436.7	4583.0	3497.0
Others	35.9	41.7	47.1	52.2	0.0	0.0	0.1	0.1	64.0	65.9	65.5	81.1	16.4	10.6	12.0	13.6	118.8	120.4	127.0	149.3
South America	987.6	1282.2	1692.8	1974.2	15.5	12.5	16.6	18.6	331.3	595.8	630.3	435.3	1414.4	1790.1	2196.6	2400.6	2808.7	3753.6	4604.0	4899.1
Argentina	134.6	296.5	320.0	360.0	1.0	2.0	4.7	5.0	0.1	0.1	0.1	0.1	21.1	30.5	60.0	60.0	188.9	366.8	422.8	465.1
Brazil	645.0	757.9	1050.0	1230.0	0.1	0.1	0.1	0.1	297.2	511.4	630.0	320.0	1343.6	1726.3	2100.0	2300.0	2304.6	3014.7	3699.1	3869.1
Uruguay	141.0	204.8	265.0	295.0	9.0	5.8	6.5	7.2	0.0	0.0	0.0	0.0	0.5	0.9	0.0	0.0	157.6	217.5	276.5	307.2
Others	66.9	23.0	57.8	89.2	5.4	4.6	5.3	6.3	34.0	84.3	100.2	115.2	49.2	32.4	36.6	40.6	157.7	154.6	205.6	257.7
Asia 3/	341.2	394.1	449.6	501.4	12.9	13.8	17.9	19.7	351.9	398.0	485.5	589.3	1858.9	1798.2	1685.0	1328.6	2632.2	2679.2	2715.3	2516.8
China, Mainland	52.4	39.0	37.0	39.0	2.9	3.0	4.0	5.0	213.7	290.4	380.0	470.0	580.8	560.3	500.0	425.0	906.0	952.7	986.0	1004.0
India	243.8	298.6	350.0	400.0	3.5	5.0	6.0	7.0	0.8	1.1	1.0	1.0	0.4	2.0	5.0	10.0	248.5	306.8	362.0	418.0
Thailand	4.1	3.4	3.0	3.0	0.0	0.0	0.0	0.0	14.0	16.1	14.0	16.0	511.3	552.0	585.0	325.0	529.4	571.5	602.0	344.0
Others	40.9	53.1	59.6	59.4	6.6	5.9	7.9	7.7	123.5	90.3	90.5	102.3	766.4	683.9	595.0	568.6	948.3	848.2	765.2	750.7
Europe 2/ 4/	809.3	800.8	683.8	611.0	18.6	17.1	16.3	16.6	1199.6	1252.2	1338.0	1330.9	1237.8	1377.1	1120.9	1201.7	3294.5	3476.8	3186.9	3188.0
EU (15) 2/	547.0	480.7	380.0	310.0	3.8	3.4	2.0	2.0	910.7	990.7	985.0	950.0	961.3	1086.8	800.0	850.0	2429.2	2567.8	2173.0	2118.0
Other West Europe	2.2	3.3	4.0	4.0	1.7	2.1	2.5	2.6	2.5	1.7	2.0	2.0	0.3	0.5	0.6	0.6	7.3	8.3	9.9	9.9
Hungary	6.9	9.2	10.0	10.0	1.3	0.2	0.0	0.0	126.9	114.3	115.0	120.0	131.9	134.0	120.0	140.0	274.4	265.0	252.0	277.0
Poland	52.3	86.9	60.0	45.0	0.0	0.1	0.1	0.1	74.9	54.9	140.0	140.0	51.5	44.6	77.0	85.0	188.6	196.5	287.1	280.1
Romania	0.6	0.6	1.0	1.0	0.0	0.0	0.0	0.0	0.9	0.5	1.0	1.0	6.8	5.4	12.0	15.0	9.2	7.6	15.0	18.0
Other East Europe	47.2	35.2	23.7	29.7	4.7	3.3	3.3	3.3	153.1	149.1	156.7	172.6	170.1	172.6	162.3	180.1	385.1	370.4	355.0	394.5
Oceania	1716.0	1679.9	1611.9	1619.9	652.9	636.3	606.0	622.0	56.2	66.1	65.5	64.6	26.7	25.3	28.1	29.1	2492.0	2447.5	2351.3	2375.5
Australia	1265.5	1236.0	1130.0	1128.0	306.5	294.6	250.0	252.0	55.5	65.6	65.0	64.0	25.9	24.2	27.0	28.0	1673.5	1640.4	1492.0	1492.0
New Zealand	449.1	441.4	480.0	490.0	346.4	341.7	356.0	370.0	0.4	0.3	0.3	0.3	0.6	1.0	1.0	1.0	815.6	803.4	856.3	880.3
CIS (12)	157.1	190.5	212.6	218.6	1.3	1.2	1.4	1.7	18.9	37.2	36.0	39.0	11.7	21.1	21.0	23.0	220.2	250.8	271.6	282.9
Russian Federation	6.4	6.6	7.0	7.0	0.4	0.4	0.4	0.4	7.8	7.4	7.0	7.0	3.7	1.3	1.0	1.0	19.0	16.0	15.4	15.4
Ukraine	116.3	142.4	160.0	165.0	0.2	0.3	0.3	0.3	2.9	3.0	7.0	10.0	0.7	3.6	1.0	1.0	120.4	149.6	168.5	176.5
Other CIS	34.4	41.5	45.6	46.6	0.7	0.5	0.7	1.0	38.2	26.8	22.0	22.0	7.3	16.1	19.0	21.0	80.9	85.2	87.7	91.0
Developed countries 2/	4085.3	4139.2	3787.3	3000.6	675.5	657.2	625.8	642.2	2547.9	2746.4	3003.2	3162.1	4554.1	4232.0	4038.9	3848.8	11995.1	11885.0	11563.4	10762.6
Developing countries	1451.6	1808.5	2275.0	2608.4	40.3	42.0	51.4	53.9	745.9	1062.8	1183.3	1109.1	3289.4	3594.4	3885.8	3738.4	5664.8	6687.8	7559.7	7679.5

1/ Including Other Meat
2/ Excluding EU (15) intra-trade
3/ Including CIS countries in Asia
4/ Including Baltic States & CIS countries in Europe.

MEAT CONSUMPTION

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	Million tons - CWE				Million tons - CWE				Million tons - CWE				Million tons - CWE				Million tons - CWE			
World	58903	61201	61913	61786	11427	11754	12057	12446	91319	94286	96210	97845	71311	74473	76106	77215	237865	246591	250369	253628
Africa	4571	4695	4740	4817	1935	1932	1951	2004	780	802	820	829	3546	3705	3795	3902	12070	12390	12558	12827
Egypt	647	696	686	695	110	110	109	107	3	3	3	3	647	657	671	686	1539	1598	1604	1629
Nigeria	373	379	383	393	229	239	241	242	165	173	176	180	198	213	220	225	1065	1127	1130	1152
South Africa	597	605	613	597	174	160	163	170	119	119	127	131	880	929	941	959	1781	1826	1857	1870
Others	2954	3016	3058	3133	1423	1422	1438	1485	492	506	514	515	1821	1907	1963	2032	7685	7839	7966	8177
North & Central America	15692	16148	15868	16212	353	361	366	375	11259	11614	11831	11967	18471	19801	20198	21121	46186	48409	48490	49993
Canada	1001	1008	1138	1110	30	31	32	33	1152	1167	1121	1050	1133	1143	1147	1150	3353	3360	3440	3343
Mexico	1833	1901	1865	1810	124	127	136	142	1262	1298	1364	1405	2354	2515	2612	2744	5704	5977	6116	6241
USA	12288	12688	12296	12715	166	172	167	167	8464	8759	8912	9053	13710	14798	15037	15774	34849	36736	36478	37867
Others	570	551	569	577	33	31	32	33	382	390	434	459	1275	1344	1401	1453	2280	2337	2457	2542
South America	10750	11286	11283	11115	324	330	336	346	2895	2718	2765	2931	8965	9472	9301	9618	23023	23961	23847	24164
Argentina	2357	2411	2492	2300	59	59	58	58	254	227	261	245	1001	943	924	935	3728	3719	3815	3611
Brazil	6073	6444	6395	6405	114	119	122	124	1697	1589	1570	1730	5048	5503	5288	5535	12906	13661	13384	13806
Colombia	695	676	678	683	13	12	13	13	104	114	113	113	620	664	670	672	1440	1475	1483	1490
Venezuela	425	495	465	475	11	11	12	13	121	127	127	127	874	905	906	918	1422	1541	1512	1535
Others	1199	1262	1253	1252	127	129	132	138	719	662	694	716	1422	1458	1512	1558	3528	3565	3653	3723
Asia 2/	15381	15918	16529	16416	6516	6908	7158	7443	51445	53524	54914	56631	25761	26512	27606	27362	100494	104408	107549	109240
China, Mainland	5441	5822	6111	6469	2950	3199	3428	3665	41746	43151	44400	45655	12229	12634	13220	13155	63287	65717	68059	69839
India	2637	2608	2612	2660	696	698	701	703	594	611	629	639	1251	1399	1595	1740	5318	5456	5677	5882
Japan	1322	1256	1328	972	27	25	20	20	2158	2269	2129	2289	2037	2068	2043	1846	5637	5607	5491	5157
Korea, Rep	495	565	545	474	5	6	8	9	1013	1047	1295	1346	570	592	572	536	2040	2330	2428	2312
Philippines	381	340	383	400	34	37	39	41	1093	1372	1188	1214	632	675	702	717	2135	2468	2324	2385
Viet Nam	195	201	207	210	5	5	5	5	1488	1642	1790	1890	385	430	470	400	2091	2297	2491	2524
Others	4909	5126	5344	5231	2800	2938	2956	2999	3352	3432	3482	3599	8658	8713	9003	8968	19986	20533	21080	21141
Europe 3/	11425	12192	12448	12174	1594	1638	1692	1709	24442	25113	25327	24933	13767	14137	14316	14302	52903	54295	54717	54206
EU (15)	6940	7557	7720	7494	1242	1273	1300	1313	16828	17045	17101	16922	8725	8471	8565	8510	35166	35424	35540	35279
Other West Europe	245	253	261	270	47	47	46	46	371	370	373	381	151	159	168	178	842	856	869	900
Hungary	53	47	60	60	8	9	10	10	437	497	455	440	377	386	368	343	888	946	901	862
Poland	239	201	232	253	1	1	1	1	1803	1985	2119	1968	789	909	864	887	2863	3124	3204	3092
Romania	158	164	156	156	52	54	56	58	498	561	536	528	351	426	448	470	1091	1221	1210	1225
Other East Europe	534	486	516	511	87	91	115	115	1503	1359	1420	1377	662	804	928	948	2835	2792	3033	3000
Oceania	1082	959	1043	1049	706	586	554	570	494	512	549	551	799	844	888	908	3063	2991	3074	3067
Australia	856	764	809	824	422	361	311	319	354	369	401	400	831	664	694	710	2253	2216	2222	2204
New Zealand	179	151	187	174	235	185	200	203	64	68	71	71	116	129	135	140	567	547	604	604
CIS (12)	4186	4457	4479	4399	503	515	519	526	3107	3393	3406	3401	2821	3117	3125	3132	10915	11699	11734	11636
Developed countries	28836	29863	30010	29765	3004	2936	2948	2991	37054	38173	38398	38240	32938	34563	35022	35610	104041	107366	107595	108073
Developing countries	30067	31338	31903	32021	8423	8818	9109	9455	54265	56113	57812	59606	38372	39910	41084	41605	133824	139225	142774	145556

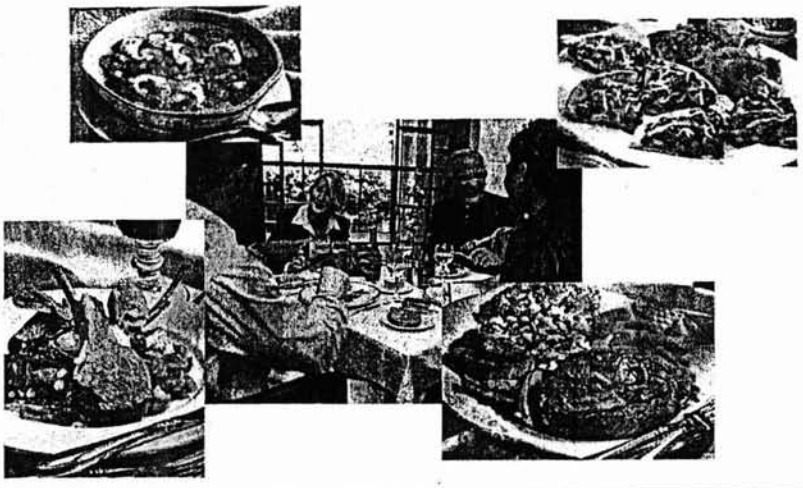
1/ Including Other Meat
2/ Including CIS countries in Asia
3/ Including Baltic States & CIS countries in Europe.

P/C MEAT CONSUMPTION

	Bovine Meat				Ovine Meat				Pig Meat				Poultry Meat				Total Meat 1/			
	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004	2001	2002	2003	2004
	....kg per year....				....kg per year....				....kg per year....				....kg per year....				....kg per year....			
World	9.6	9.9	9.9	9.7	1.9	1.9	1.9	2.0	14.9	15.2	15.3	15.4	11.6	12.0	12.1	12.2	38.8	39.8	39.9	39.9
Africa	5.7	5.8	5.7	5.6	2.4	2.4	2.3	2.3	1.0	1.0	1.0	1.0	4.4	4.5	4.5	4.6	15.1	15.2	15.0	15.0
Egypt	9.3	9.8	9.5	9.5	1.6	1.6	1.5	1.5	0.0	0.0	0.0	0.0	9.3	9.3	9.3	9.4	22.1	22.5	22.2	22.2
South Africa	14.6	14.7	14.8	14.3	4.3	3.9	3.9	4.1	2.9	2.9	3.1	3.1	21.6	22.6	22.7	23.0	43.7	44.4	44.9	44.9
Sudan	10.6	10.6	10.4	10.4	8.6	8.3	8.2	8.5	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	22.9	22.5	22.2	22.5
Tunisia	6.4	5.4	6.1	6.3	6.8	5.9	6.0	6.1	0.0	0.0	0.0	0.0	12.1	11.9	11.8	12.3	26.3	24.4	24.8	25.5
North America	42.6	43.6	42.4	43.4	0.6	0.6	0.6	0.6	30.8	31.6	31.7	31.7	47.6	50.7	51.1	53.1	122.5	127.6	126.1	129.3
Canada	31.9	31.8	35.6	34.4	1.0	1.0	1.0	1.0	36.6	36.8	35.0	32.5	36.0	36.1	35.9	35.6	106.7	105.9	107.5	103.6
USA	43.8	44.9	43.2	44.4	0.6	0.6	0.6	0.6	30.2	31.0	31.3	31.6	48.9	52.4	52.9	55.1	124.3	130.0	128.2	132.2
Central America and Carr...	13.6	13.7	13.4	12.9	0.9	0.9	0.9	0.9	9.3	9.4	9.9	10.1	20.6	21.6	22.1	22.8	45.3	46.5	47.2	47.7
Dominican Rep.	8.3	8.3	8.6	8.8	0.1	0.1	0.1	0.1	7.5	7.6	8.2	8.4	24.5	21.7	19.9	18.9	40.5	37.8	36.8	36.2
Mexico	18.3	18.7	18.1	17.3	1.2	1.2	1.3	1.4	12.6	12.7	13.2	13.4	23.4	24.7	25.3	26.2	56.8	58.7	59.2	59.6
South America	30.6	31.7	31.3	30.4	0.9	0.9	0.9	0.9	8.3	7.6	7.7	8.0	25.6	26.6	25.8	26.3	65.6	67.3	66.1	66.1
Argentina	62.9	63.5	64.9	59.2	1.6	1.5	1.5	1.5	6.8	6.0	6.8	6.3	26.7	24.8	24.1	24.1	99.4	98.0	99.4	92.9
Brazil	35.3	37.0	36.2	35.9	0.7	0.7	0.7	0.7	9.9	9.1	8.9	9.7	29.3	31.6	30.0	31.0	74.9	78.4	75.8	77.3
Chile	21.6	21.3	22.7	23.2	0.7	0.7	0.7	0.8	17.5	17.2	18.1	17.9	23.7	22.5	23.0	23.4	64.1	61.8	64.9	65.6
Uruguay	52.4	62.0	52.5	49.2	12.5	12.5	12.8	13.1	9.6	8.0	8.2	9.6	16.0	15.8	16.2	16.3	90.7	98.7	90.8	89.4
Asia 2/	3.9	4.0	4.1	4.0	1.7	1.8	1.8	1.9	13.9	14.3	14.5	14.8	7.0	7.1	7.3	7.1	26.8	27.5	28.0	28.1
China , Mainland	4.3	4.6	4.8	5.0	2.3	2.5	2.7	2.8	33.0	33.8	34.6	35.3	9.7	9.9	10.3	10.2	50.0	51.5	53.0	54.0
China, Province of Taiwan	3.5	4.0	4.2	3.5	1.1	1.3	1.5	1.5	43.3	42.2	42.0	42.8	31.9	32.5	32.7	32.3	79.8	80.0	80.4	80.1
Japan	10.4	9.9	10.4	7.6	0.2	0.2	0.2	0.2	17.0	17.9	16.7	18.0	16.0	16.3	16.1	14.5	44.4	44.1	43.2	40.5
Korea, Rep.	10.5	11.9	11.4	9.8	0.1	0.1	0.2	0.2	21.5	22.0	27.0	27.9	12.1	12.5	11.9	11.1	43.2	49.0	50.7	47.9
Malaysia	6.3	6.5	6.8	7.0	0.7	0.6	0.7	0.8	8.2	9.8	8.7	8.8	36.0	38.1	39.8	39.4	51.3	55.0	56.1	56.0
West Europe	18.5	20.1	20.5	20.0	3.3	3.4	3.5	3.5	44.3	44.8	44.9	44.5	22.9	22.2	22.5	22.3	92.7	93.4	93.6	93.0
EU (15)	18.5	20.1	20.5	19.9	3.3	3.4	3.5	3.5	44.8	45.3	45.5	45.0	23.2	22.5	22.8	22.6	93.6	94.2	94.5	93.7
East Europe	8.9	8.1	8.7	8.9	1.3	1.4	1.6	1.7	38.4	39.9	41.0	39.1	19.7	22.9	23.6	24.0	69.5	73.2	75.6	74.1
Czech, Rep.	7.3	9.3	10.4	9.3	0.1	0.1	0.1	0.2	41.2	41.7	42.1	40.8	23.7	32.1	31.8	31.1	76.7	86.7	88.1	86.0
Hungary	5.3	4.7	6.0	6.1	0.8	0.9	1.0	1.0	43.7	49.9	45.9	44.5	37.7	38.8	37.1	34.7	88.9	95.0	90.9	87.2
Poland	6.2	5.2	6.0	6.5	0.0	0.0	0.0	0.0	46.5	51.1	54.5	50.6	20.3	23.4	22.2	22.8	73.8	80.5	82.4	79.5
Romania	7.1	7.4	7.1	7.1	2.3	2.5	2.5	2.6	22.4	25.3	24.3	24.0	15.8	19.2	20.3	21.3	49.0	55.1	54.8	55.6
Oceania	35.5	31.1	33.5	33.3	23.2	19.0	17.8	18.1	16.2	16.6	17.6	17.5	26.3	27.4	28.5	28.8	100.6	97.1	98.6	97.2
Australia	44.9	39.7	41.7	42.1	22.2	18.7	16.0	16.3	18.6	19.2	20.7	20.4	33.1	34.5	35.8	36.2	118.2	115.2	114.4	112.5
New Zealand	46.0	38.5	47.1	43.5	60.3	47.1	50.3	50.7	16.3	17.2	17.8	17.7	29.7	32.8	34.0	35.0	145.4	139.1	152.4	150.9
CIS (12)	14.7	15.7	15.7	15.5	1.8	1.8	1.8	1.8	10.9	11.9	12.0	11.9	9.9	11.0	11.0	11.0	38.4	41.2	41.3	40.9
Developed countries	22.2	22.9	23.0	22.7	2.3	2.3	2.3	2.3	28.5	29.3	29.4	29.2	25.4	26.5	26.8	27.2	80.1	82.4	82.4	82.5
Developing countries	6.2	6.4	6.4	6.3	1.7	1.8	1.8	1.9	11.2	11.5	11.6	11.8	7.9	8.1	8.3	8.2	27.7	28.4	28.7	28.9

1/ Including Other Meat
2/ Excluding CIS countries in Asia

Bringing American Lamb to the Table

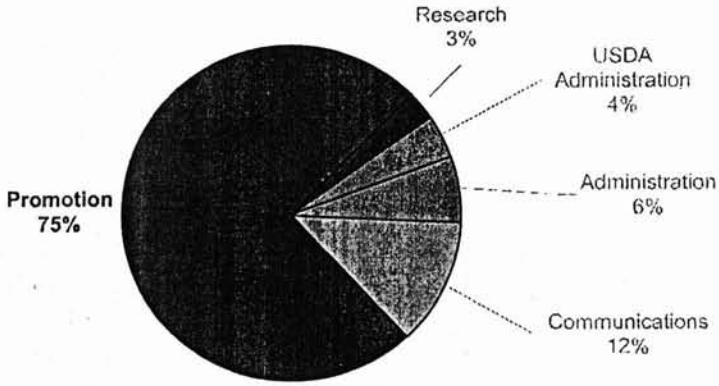


AMERICAN LAMB BOARD

ALB Strategy

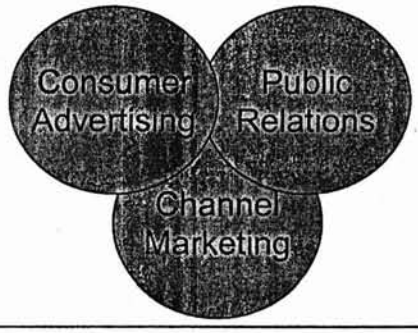
- Promote American Lamb to the best target groups as identified by existing research
- Minimize the volatility of seasonal product sales through targeted promotions
- Communicate openly and on a regular basis with ALB contributors
- Leverage and expand the ALB budget by developing cooperative partnerships
- Use research data to benchmark, measure and evaluate progress

ALB FY04 Budget – 2.4 million



ALB Marketing & Promotions

Through advertising, channel marketing and public relations, ALB wants to increase the demand for American Lamb in the marketplace throughout the year at a profitable price.

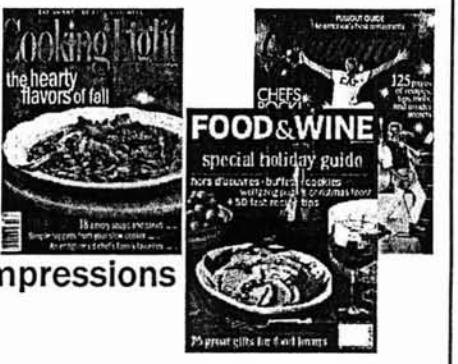


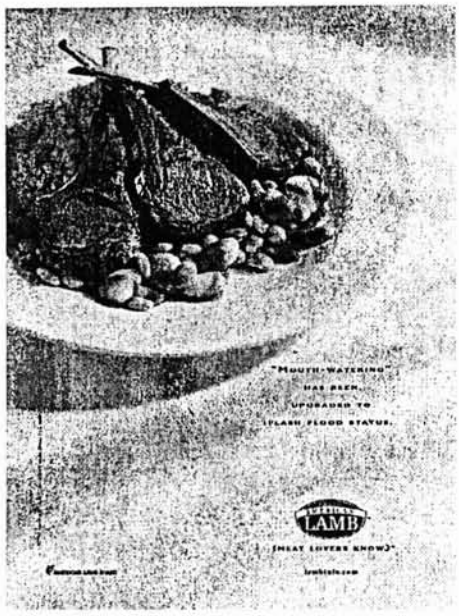
Consumer Marketing

- Goals
  - Increase domestic market's overall acceptance of lamb
  - Establish American Lamb as the preferred choice for lamb in the market place
- Target Market
  - Primary Audience – "Emerging Gourmets" who tend to be:
    - 40-60 years old
    - High HH income ($60,000+)
    - Married
    - Suburban
    - High lamb consumption
    - Dine out often
    - Enjoy cooking and entertaining
    - Attend and participate in cultural activities

Consumer Marketing

- Implementation
  - Full page, four-color ads in national epicurean magazines, utilizing current "(Meat Lovers Know)" print ads
    - *Bon Appetit*
    - *Cooking Light*
    - *Food and Wine*
    - *Gourmet*
  - Anticipated Results= 95,600,000 consumer impressions





Public Relations

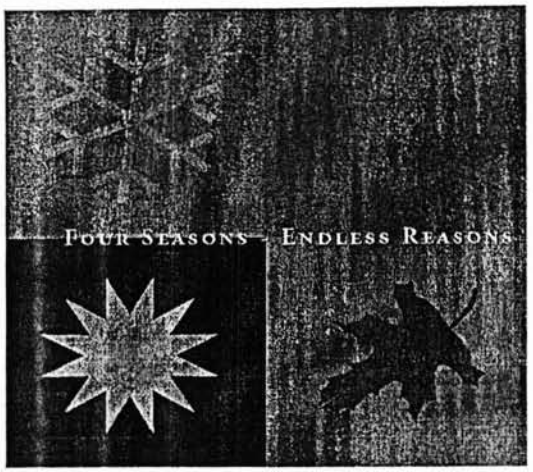
Goals:

- Minimize volatility of seasonal product sales
- Promote new uses and cuts of American Lamb

PR Approach:

- Leverage seasonal cooking trend
- Use as platform to introduce new cuts

Introducing...



Four Seasons • Endless Reasons Campaign

Promoting American Lamb for Every Season

Our Targets

Emerging Gourmets
↓
Food & Lifestyle Magazines
Newspaper Food Sections
Feature TV News
Prominent Events

Culinary/Retail Food Professionals
↓
Chef Events
Trade Media

Strategic Approach

- Enlist Chefs as "American Lambassadors"
- Create Splashy National Magazine Media Event
- Conduct Consumer Media Relations
- Execute Culinary Marketing Campaign

Key Messages

1. Year-Round Availability
2. Wide Variety of Cuts and Many Value Options
3. Choose American Lamb for Mild and Fresh Flavor

Consumer Media Relations

- New York Event - American Lambassadors Team Up
- Nationwide Press Kit Distribution
- Eat American For Lamb Campaign
- Local T.V Interviews
- National T.V. Coverage

Culinary Marketing Campaign

- Secured American Lamb sponsorship and presence at 6 prominent food events
  - Ongoing culinary and foodservice/retail trade media relations

IACP
INTERNATIONAL ASSOCIATION OF CULINARY PROFESSIONALS

EpCot

THE AMERICAN ACADEMY of CHEFS
Honor Society of the American Culinary Federation

THE CULINARY INSTITUTE OF AMERICA 1946

IFEC

What's Next?

Consumer Media Campaign

- Ongoing media relations
  - National media pitching
  - Color recipe pages for newspapers
  - Summer press kit for newspapers and TV

Culinary Marketing Campaign

- Chefs recipe contest
- Ongoing trade media relations

Channel Marketing

- Goals/Targets
  - Increase featuring and ensure availability of American lamb at top 25-50 leading supermarket chains
  - Encourage the menuing of American lamb with particular focus on casual dining and high-end restaurant chains
  - Educate the chef/student community on the features and benefits of American lamb vs. foreign competition

Culinary Education

- Educate the chefs of tomorrow
- Targeting culinary school educators and students
- Mailing of video and Instructor's Guide to leading culinary schools in February/March
- Available in VHS and DVD format

American Lamb Makes the Plate

Retail Marketing

- Focus on partnership programs to stretch the budget
- Select partners based on common customer base, financial resources and complimentary categories

Spring/Summer '04 Retail Program

- Continue partnership with Buena Vista Winery
- Kraft third partner
- Grill oriented cuts (loin chops)
- Present program to leading lamb suppliers in conjunction with BVW
- Program components include partner-funded coupons, wine, meat and grocery POP, recipes, wine-pairing suggestions and sweepstakes

Recipe Label Program 2003-04

- Key retailers including Albertson's, Kroger, Stop & Shop, Price Chopper, Acme, Roche Bros., Kash 'n Carry
- Over 10 million labels purchased by retailers to date

TEXTO DE TRABAJO SOBRE SISTEMAS PATAGONICOS DE PRODUCCION DE CARNE

Presentado para publicación en Revista "Tierra Adentro"

SISTEMAS PRODUCTIVOS DE CARNE BOVINA Y OVINA EN LA PATAGONIA HUMEDA DE CHILE (AYSÉN)

Christian Hepp
Ing.Agr. M.Phil PhD
INIA *Tamelaike*
Coyhaique, Región de Aysén, Patagonia, Chile

Introducción

La Patagonia Húmeda se ubica principalmente en la vertiente occidental de la Cordillera de los Andes y en los valles intermontanos de las regiones de Aysén y Magallanes (Chile). La Zona Intermedia de Aysén , aún cuando se proyecta hacia la vertiente oriental de los Andes, cuenta con precipitaciones anuales que fluctúan entre los 800 a 1500 mm y corresponde probablemente al sector de mayor potencial de intensificación ganadero de la Patagonia austral, con alrededor de 250.000 ha factibles de mejorar (Hepp 1993).

Desde la década de los ochenta, en la Región de Aysén se ha evaluado el mejoramiento de praderas naturalizadas de la Zona Intermedia, determinándose altas respuestas a la aplicación de fósforo y azufre, elementos deficitarios en los suelos de la zona (Hepp 1996, 2001). Si bien el nitrógeno es el elemento más deficitario en estos suelos, la filosofía aplicada es su obtención a través del proceso de fijación simbiótica por especies leguminosas, especialmente trébol blanco (*Trifolium repens*), pero también trébol rosado (*Trifolium pratense*) y, más recientemente alfalfa (*Medicago sativa*). Ello se ve reforzado por la presencia de abundante trébol blanco en las praderas naturalizadas fertilizadas de la zona (30-50% de la composición botánica) y a la medición de eficientes niveles de fijación de nitrógeno en praderas locales (121-262 kg N ha^{-1} por año) (Hepp y Almonacid 1995). La aplicación de fósforo y azufre permite incrementar la producción de materia seca de las praderas naturalizadas de la Zona Intermedia, desde niveles de menos de 1000 kg MS ha^{-1} en praderas degradadas a valores superiores a los 6000 kg MS ha^{-1} luego de tres años de aplicación de fertilizantes. Paralelamente se produce un aumento en la calidad del forraje producido (digestibilidad, proteína), al producirse cambios botánicos profundos, desde una dominancia de especies malezas hacia una pradera compuesta por trébol blanco y especies gramíneas de mayor valor nutritivo (Hepp, Mejías et al. 1995).

Estos incrementos cuantitativos y cualitativos de la producción forrajera de las praderas naturalizadas necesariamente requieren de un ajuste de los sistemas de producción ganadera, tradicionalmente de crianza bovina y ovina, y se abren oportunidades de realizar recrías y engordas con productos de mayor valor y calidad. Este trabajo relata las diferentes etapas de intensificación experimentadas por praderas naturalizadas de esta zona, con énfasis en la producción de carne bovina y ovina, extractada de resultados obtenidos por el INIA Tamal Aike.

Clima y Suelos

El clima de la zona es transandino con degeneración esteparia y registra precipitaciones que fluctúan entre los 800 a 1000 mm anuales. La temperatura media anual es de 8,5 °C, con un rango de 3,6°C en invierno y 13,6°C en verano. La temperatura mínima media de invierno es de –0,4°C, mientras que la máxima media de verano alcanza los 19,9°C. Alrededor de 10% de la precipitación anual ocurre en forma de nieve.

Los suelos se caracterizan por la presencia abundante de cenizas volcánicas depositadas por acción eólica en un paisaje modelado por glaciares, además de terrazas aluviales y lomajes morrénicos. Son ligeramente ácidos (pH 6,1), presentaban deficiencia de fósforo (11 mg kg^{-1} P Olsen) y de azufre (5 mg kg^{-1} S-SO_4), niveles elevados de potasio (340 mg kg^{-1}), altos niveles de bases de saturación (21,6 cmol+ kg^{-1}), retención de fósforo intermedia y niveles de aluminio mínimos.

Praderas

Las praderas naturalizadas sin fertilizar (PN) contienen gramíneas de regular valor forrajero, especialmente *Poa pratensis* L. (poa) y *Holcus lanatus* L (pasto miel). En praderas naturalizadas fertilizadas (PNF) aparecen además proporciones menores de *Dactylis glomerata* L (pasto ovillo) y *Lolium perenne* L (ballica perenne), además de presentar alto contenido de *Trifolium repens* L (trébol blanco) en relación a PN. Esta última está dominada por especies malezas, entre las que destacan *Taraxacum officinale* (diente de león), *Acaena pinnatifida* (pimpinela), *Fragaria chiloensis* (frutilla silvestre), *Cerastium spp* (cerastio) e *Hypochoeris radicata* (pasto del chancho). La variación típica de la composición botánica de una pradera naturalizada sin fertilizar (PN) y otra fertilizada por 10 años (PNF), se detalla en la figura 1. Asimismo, la variación estacional de la composición botánica tiene efectos sobre el valor nutritivo del forraje disponible, como se aprecia en la figura 2.

La aplicación de fósforo y azufre provoca incrementos en la producción de materia seca de PNF (Figura 3). De valores iniciales cercanos a 1500 kg ha^{-1} en las praderas degradadas (PN), al cuarto año se observa en PNF un incremento de 127% con respecto a PN. La producción de PNF tiende a estabilizarse al quinto año en niveles de 5500 a 6500 kg ha^{-1}, pero las diferencias con PN se agudizan al decaer la producción de ésta en el tiempo. Es así como PNF produce entre 2 a 6 veces más materia seca en los años finales de evaluación.

Evaluación de Sistemas Productivos

El mejoramiento de praderas naturalizadas a través de la fertilización con P y S abre posibilidades de intensificación de la producción ganadera. Para ello se han probado diversas alternativas, que se han ajustado a los diferentes escalones dentro del proceso de mejoramiento.

a. Crianza bovina

La rigurosidad climática de esta zona implica un período de crecimiento limitado de las praderas, el que se extiende aproximadamente entre los meses de octubre a marzo. Ello implica necesariamente integrar la conservación de forraje, o bien el uso de rezagos y/o combinaciones silvopastoriles, además de pérdidas controladas de peso vivo de las vacas. No obstante, una raza especializada en producción de carne (Hereford) presenta mayor rusticidad al tener menores requerimientos de mantención, por su menor tamaño corporal y la buena utilización de forrajes toscos, respecto al Overo Colorado (OC) o Frisón Rojo, raza tradicionalmente de mayor presencia en la zona(Bórquez 1984). Asimismo, la raza Hereford, por su mayor precocidad, debiera acortar los procesos de engorda (Anrique et al. 1981).

La incorporación de la raza Hereford (H) al sistema de crianza bovina, junto al mejoramiento gradual de la pradera a través de la fertilización, la subdivisión mediante cerco eléctrico y regulación de la carga animal, fueron abordadas por los trabajos iniciales de Bórquez (1984). En ellos abordó la evaluación de requerimientos de forraje conservado (heno), y el rendimiento productivo y reproductivo de las razas H y OC durante tres años, partiendo con praderas altamente

degradadas. En ambos sistemas de crianza se fue incorporando un 50% de superficie fertilizada, la cual era utilizada principalmente durante el período de primavera-verano.

Este estudio permitió determinar que en la Región de Aysén, en sólo tres años, es factible incrementar la carga animal de sistemas de crianza bovina en un 28% (0,46 *vs* 0,36 UA/ha), mediante la incorporación de la raza Hereford y un plan de fertilización parcial del predio. La raza H, con vacas en promedio 12% más livianas que las OC, tuvo 44% menores requerimientos invernales de forraje conservado, producto de menor consumo diario y de un período de suplementación también inferior a OC. Estas condiciones de mayor rusticidad de H sobresalen especialmente en los inviernos más críticos, donde las pérdidas de peso invernal son menores a las de la raza OC. Si bien los pesos de destete de H son algo inferiores a los de OC (196 *vs* 211 kg), ambos son adecuados y el resultado final favorece a la raza H, dada las mayores cargas que es factible manejar (26% más producción total en sistema H *vs* OC: 147 *vs* 117 kg/ha).

b. Recría y engorda de novillos

El uso de praderas naturalizadas fertilizadas abrió la posibilidad de iniciar sistemas más intensivos de producción de carne bovina, como es el caso de sistemas de recría/engorda estacional con ganado Hereford. En un sistema de este tipo, los animales ingresan con un peso vivo aproximado de 190 kg en octubre y utilizan la pradera a pastoreo durante aproximadamente 210-220 días, hasta el mes de mayo del año siguiente. Ello corresponde a la etapa de 12 a 18-19 meses de edad, aproximadamente.

El sistema PNF se diferencia significativamente del sistema PN a partir del día 150, aproximadamente en febrero-marzo (figura 4). Los novillos en PNF siempre presentan mayores ganancias de peso, mientras en aquellos de PN declinan más rápidamente e incluso llegan a producirse pérdidas de peso a fines de la temporada. Los animales de PNF logran pesos finales cercanos a los 400 kg de peso vivo, que en novillos Hereford es adecuado para faenamiento. Sin embargo, en PN, los pesos finales son notablemente inferiores, lo que obliga a estos animales a pasar un segundo invierno y ser finalizados más cerca de los 30 meses.

El sistema PNF permitió un aumento gradual de la carga a través de los cinco años, desde 1,8 a 2,8 novillos ha^{-1} al final del período, mientras que en PN no fue factible manejar en promedio más de 0,9 novillos ha^{-1}. En PNF, la ganancia promedio por animal y la ganancia diaria de peso (975 g d^{-1}) fueron en promedio 44% mayor a la de PN (678 g d^{-1}). La producción promedio de carne (peso vivo) en PNF fue 2,9 veces mayor a la de PN, aunque se observó un aumento sostenido en cada uno de los años estudiados, desde casi 390 kg ha^{-1} hasta 592 kg ha^{-1} en el año 4. Por otra parte, en PN la producción permanece estancada en niveles comparables a los sistemas de crianza reportados anteriormente (en promedio 124 kg ha^{-1}). Los incrementos de producción son un resultado de una combinación de mayor carga animal y mejor desempeño individual en PNF respecto de PN.

c. Recría y engorda ovino-bovina

Las praderas fertilizadas tienen su máximo de producción en el mes de diciembre y la tasa de crecimiento tiende a superar largamente los requerimientos animales. Ello genera un período de sobreproducción, donde el forraje se acumula y la calidad decae por sobremaduración. Una alternativa de uso de estos excedentes de forraje puede ser la incorporación estacional de corderos destetados en pastoreo conjunto o diferido con bovinos. Para determinar la respuesta animal a un sistema de estas características, se probaron varias relaciones novillo:cordero sobre praderas con un historial de 12 años de fertilización. Los novillos fueron de raza Hereford y los corderos destetados

Corriedale (18 kg peso vivo). Se utilizó como testigo un sistema bovino puro sobre PNF, además de un control con novillos sobre PN.

Los pesos finales de novillos de los sistemas mixtos de relación 1:1 (380 kg) y 1:2 (374 kg) fueron similares a los de 1:0 (408 kg), lo que indicaría que los niveles de competencia entre especies son moderados. Al elevarse la relación a 1:3, el peso vivo de los bovinos se resiente notoriamente (347 kg) y dichos novillos no alcanzan pesos de término, aunque siguen siendo superiores a los de PN (304 kg). Los corderos en el tratamiento 1:2 logran los mayores pesos vivos (40,9 kg), mientras que en 1:3 los pesos y ganancias son muy inferiores. En 1:0 los novillos logran las mayores tasas de crecimiento (1.150 g d^{-1}), y con 1 o 2 corderos por novillo las ganancias de peso en bovinos son similares (980 g d^{-1}).

Los cuatro sistemas sobre PNF presentan una cantidad similar de kg totales ganados por unidad de superficie (Figura 5), a pesar que en rigor ambas producciones no son estrictamente aditivas. La tendencia es una disminución de la producción bovina al aumentar la carga de ovinos. Sin embargo, los resultados de pesos finales en novillos indicarían que en forma preliminar, una relación novillo:cordero de hasta 1:2 seria sostenible sobre estas praderas, sin perder demasiado peso final de bovinos, asegurando la finalización de los animales.

d. Engorda estacional ovina

Otra alternativa de uso de PNF es la engorda de corderos, los que pueden ser destetados en forma precoz. Para determinar el potencial de producción de carne de cordero en PNF, se realizó una experiencia probando diferentes presiones de pastoreo, durante el período de engorda final, entre los meses de enero y marzo. Para ello se trajeron corderos de raza Corriedale de las estepas y se sometieron a diferentes tratamientos de cargas durante un período de 80 días. Las praderas utilizadas habían sido previamente utilizadas con bovinos, hasta el mes de diciembre. El cuadro 4 resume los principales resultados, evaluados entre el 1 de enero y 22 de marzo. Se utilizaron cuatro cargas de corderos, de 25, 35, 45 y 55 corderos por hectárea.

Las cargas más bajas presentaron mayores ganancias diarias de peso vivo y mejor evolución de la condición corporal. Las ganancias de peso iniciales llegaron a niveles de 250 a 300 g d^{-1} en C25 y C35. La condición corporal final en C25 y C35 fue de 3,15, mientras que en C45 y C55 llegó a 2,90. Los pesos de canal fría alcanzados en C25 (15,3 kg) y C35 (14,3 kg) permitieron obtener canales más pesadas, aunque con mayor deposito de grasa. Los corderos de cargas más altas tuvieron canales más pequeñas (12,2 kg) y menor cantidad de grasa.

La determinación de qué carga usar deberá estar en relación al objetivo del sistema productivo. Si se desea una mayor producción por unidad de superficie de más de 500 kg de peso vivo por hectárea, es recomendable usar cargas de C45 o C55, con pesos de faenamiento de aproximadamente 31 kg. Si el requerimiento es de corderos más pesados, las cargas más livianas de 25 o 35 corderos por hectárea permitirán llegar a pesos finales de 34 a 36 kg de peso vivo.

Es destacable la alta producción por hectárea que se logra en estos sistemas intensivos con corderos, ya que en sólo 80 días se llega a superar los 600 kg de peso vivo ha^{-1}, lo mismo que puede llegarse a lograr con novillos en casi siete meses.

Proyectos recientes de INIA Tamel Aike (con apoyo FIA) están incorporando nuevas razas a la producción ovina regional, como es el caso de Texel, Border Leicester, Suffolk y Milchschaf, las cuales en sistemas de cruzamientos pueden mejorar los resultados de producción y calidad de canal.

Literatura citada

Anrique, R., S. Matte, et al. (1981). Hibridismo: Manual para aumentar la producción de carne, Corporación de Fomento de la Producción - Universidad Austral de Chile: 20 p.

Bórquez, H. (1984). Comportamiento de vientres Hereford y Overo Colorado. Valle Simpson, Aysén. Investigación en Técnicas Pecuarias en la XI Región de Chile. Coyhaique, Instituto de Investigaciones Agropecuarias y Serplac XI Región: 107-119.

Ehijos, J. (1992). Engorda intensiva de corderos en praderas naturales fertilizadas en la Zona Intermedia de Aysén. Tesis Ing Agr. Universidad Austral de Chile. Valdivia, Chile.

Hepp, C. (1993). El potencial ganadero de Aysén. Ley de la Carne: Un Desafío para la Región de Aysén, Seminario Colegio Ingenieros Agrónomos. Coyhaique, Chile.

Hepp, C. (1996). Praderas en la Zona Austral: XI Región (Aysén). In: Praderas para Chile. I. Ruiz. Santiago, Chile: 625-638.

Hepp, C. (2001). Programa de bonificación de fertilizantes para las praderas naturalizadas de la Zona Austral de Chile: Evaluación del sexenio 1993-1998. Boletín INIA. Coyhaique: 24.

Hepp, C. and P. Almonacid (1995). Estimación de la fijación de nitrógeno por el trébol blanco en praderas naturales mejoradas de Aysén. In: Investigación en Tecnologías de Uso de Fertilizantes en Praderas de la XI Región. Informe. INIA.-Intendencia Región de Aysén. Coyhaique, Chile: 47-53.

Hepp, C., J. H. Mejías, et al. (1995). Respuesta a los macronutrientes fósforo, azufre, nitrógeno y potasio en cuatro zonas agroclimáticas de la XI Región. In: Investigación en Tecnologías de Uso de Fertilizantes en Praderas de la XI Región. INIA-Intendencia Región de Aysén. Coyhaique, Chile: 1-30.

Hepp, C., H. Thiermann y L. Goic (2003). Comparación de engorda de novillos Hereford en condiciones de praderas naturalizadas con y sin fertilización en la Zona Intermedia de Aysén (Patagonia)." (en preparación).

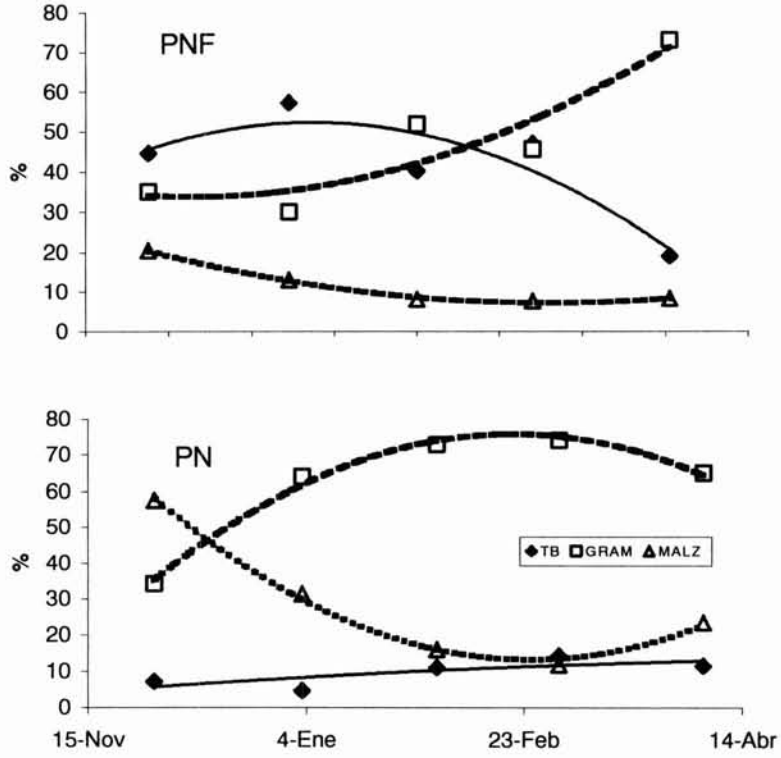


Figura 1. Variación de la composición botánica (% base MS) en praderas naturalizadas fertilizadas (PNF) y sin fertilizar (PN) luego de 10 años de fertilización, durante la principal temporada de crecimiento. Valle Simpson, Aysén, Chile.
TB trébol blanco, GRAM gramíneas, MALZ malezas. Fuente: adaptado de Hepp, Thiermann y Goic (2003)

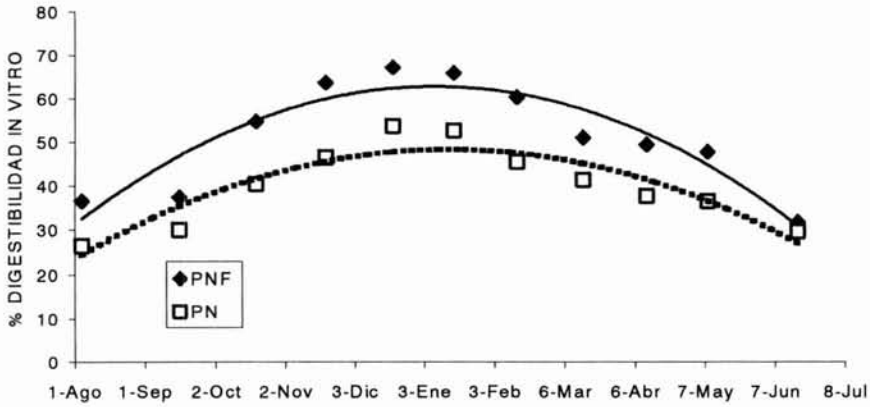


Figura 2. Variación de la digestibilidad in vitro (% base MS) en praderas naturalizadas fertilizadas (PNF) y sin fertilizar (PN) luego de 10 años de fertilización. Valle Simpson, Aysén, Chile. Fuente: adaptado de Hepp, Thiermann y Goic (2003)

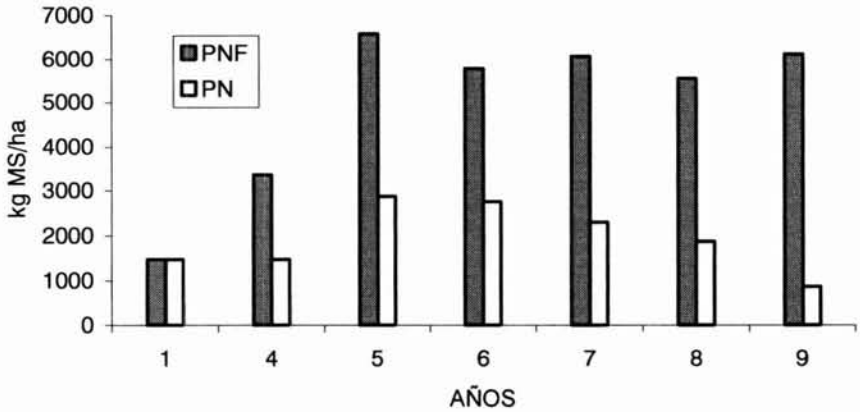


Figura 3. Variación de la producción de materia seca (kg MS ha^{-1}) en praderas naturalizadas fertilizadas (PNF) y sin fertilizar (PN) durante nueve años de fertilización. Valle Simpson, Aysén, Chile.
Fuente: adaptado de Hepp, Thiermann y Goic (2003) y Bórquez (1984)

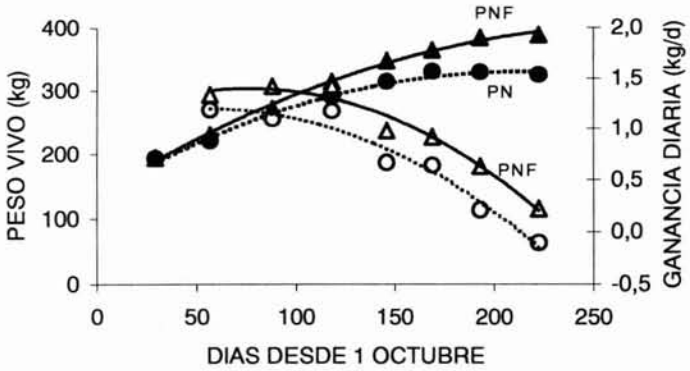


Figura 4. Variación del peso vivo (kg) y ganancia diaria de peso (kg d^{-1}) de novillos Hereford engordados sobre praderas naturalizadas fertilizadas *vs.* sin fertilizar. Promedio 5 años. Valle Simpson, Aysén, Chile.
Fuente: adaptado de Hepp, Thiermann y Goic (2003)

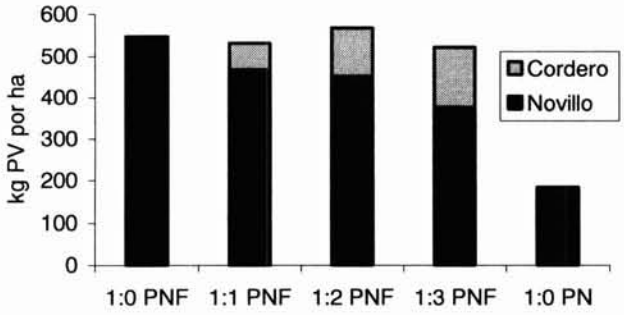


Figura 5. Peso vivo (kg) producido por unidad de superficie (ha), en novillos Hereford y corderos Corriedale, en diferentes sistemas mixtos o individuales sobre praderas naturalizadas fertilizadas (PNF). Valle Simpson, Aysén, Chile.
Fuente: adaptado de datos sin publicar (Hepp, 2003)