





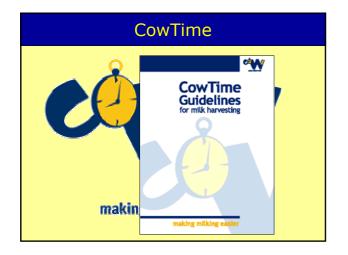
Industry milk harvesting issues

- Ensuring that farm milk supplies meet customer requirements
- Reducing the cost of milk harvesting per litre of milk

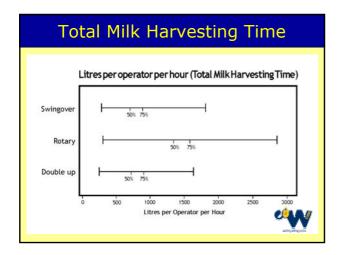


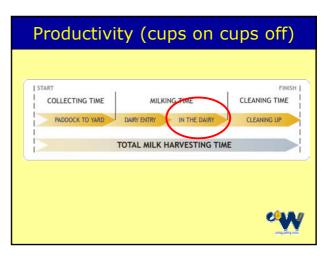
 Promoting changes to make milking a more socially-attractive occupation

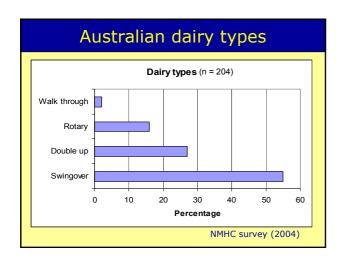
Milk Quality and Harvesting Prospectus (Feb 2001)







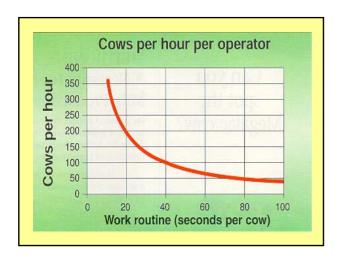


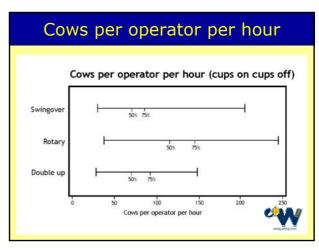




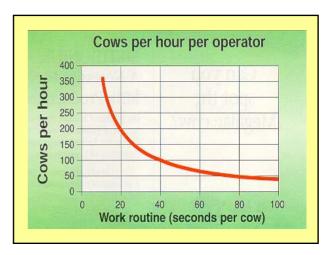
Work Routine Time	
Task cow entry feeding teat preparation cluster attachment cluster removal teat disinfection cow exit miscellaneous	

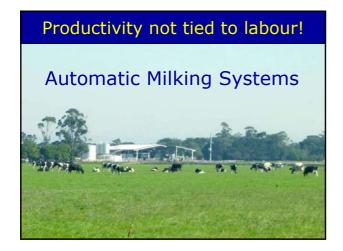
Work Routine Time	
Task	Time (s)
cow entry	4
feeding	1
teat preparation	3
cluster attachment	10
cluster removal	4
teat disinfection	3
cow exit	2
miscellaneous	3
Total	30

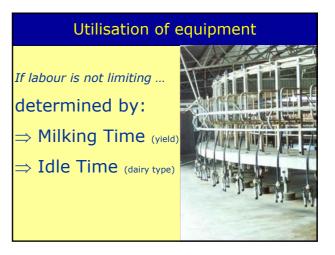


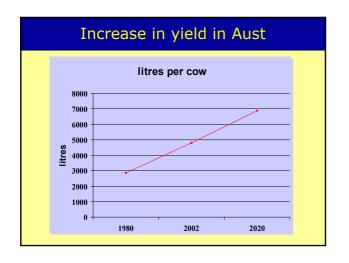


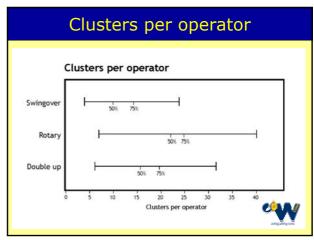
Work Routine Time - Rotary		
Cups on tasks	Time (s)	
cow entry/feeding	0	
teat preparation	3	
cluster attachment	8	
miscellaneous	1	
Total	12	
Cups off tasks	Time (s)	
cluster removal	4	
teat disinfection	3	
cow exit	0	
miscellaneous	1	
Total	8	











Productivity improvement

How many clusters per milker?

• 1976 8 clusters in a swingover 10 in a double up

• 2001 18+ in a swingover 32-40 in double ups

• 2025 ?????











