



What is the next step for rabbit breeding in Australia?

What are our friends in Europe doing?

Dr Sandra Eady
Principle Research Scientist
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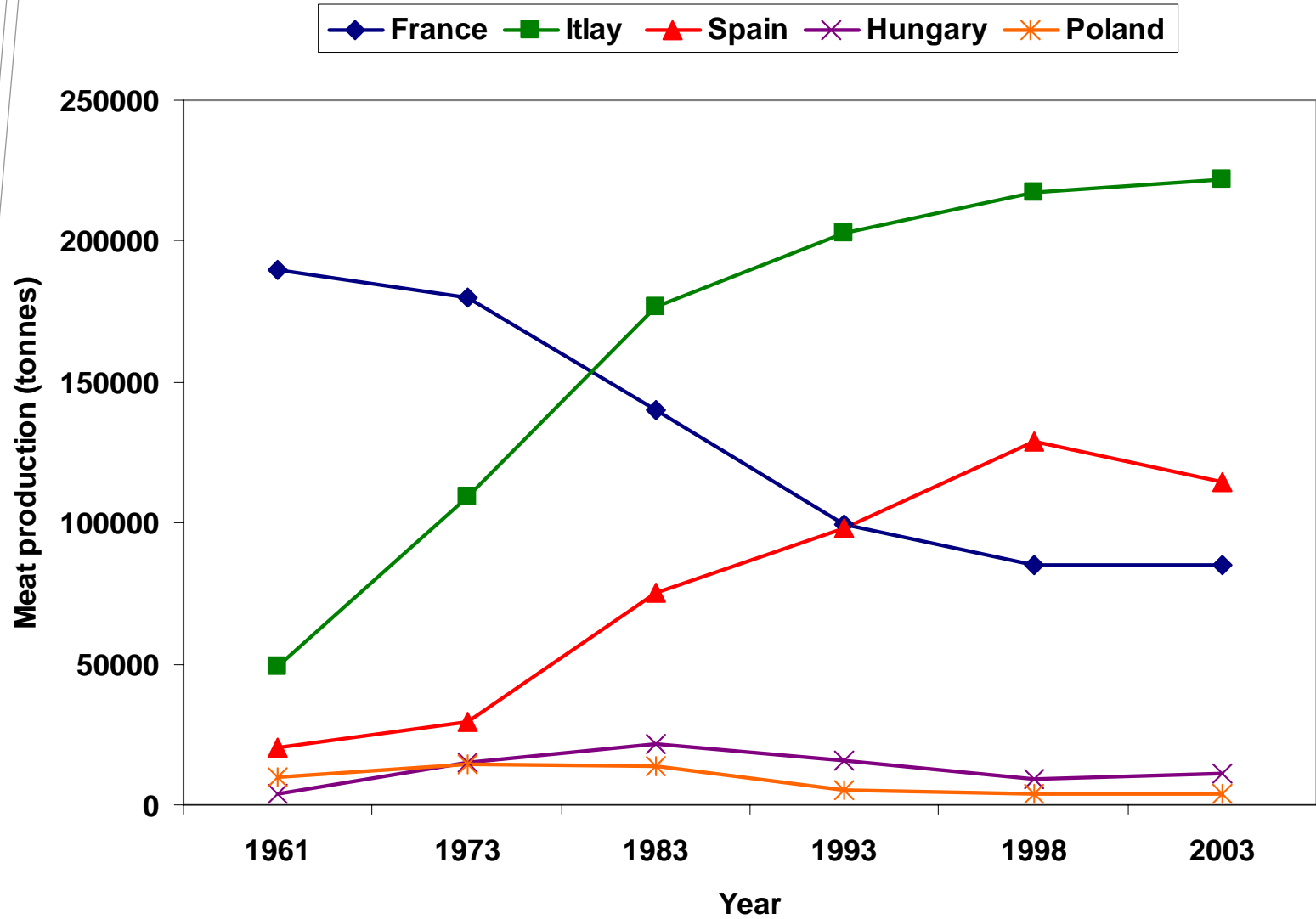
Where are we at now?

- It is difficult to collect statistics for the industry but our best guess is:
 - Australian rabbit production in 2005/06 was 300 tonne with a farm gate value of \$2.2 million.
 - This represents between 6000 and 8000 breeding does.
 - The industry appears to be doubling every 3-4 years.
 - Current estimate for gross margin per doe is approximately \$174/annum.
- **Industry profile:**
 - Farming enterprises that are making money out of rabbits are those that have a solid production base (3-400 does) with on-site abattoir and meat wholesaling activity.
- **Breeding programs**
 - Crusader (growth, litters, disease resistance) and Growtec (growth, litters)

Production levels for the industry

- Sourcing information is difficult – firstly because few rabbit farms keep computerised records and secondly the data is commercial-in-confidence. Best estimates are:
 - Number of kittens born per litter 9
 - Number of kittens born alive per litter 8
 - Number of kittens weaned per litter 5 (includes litters where all die)
 - Turnover of does per year of 100%
 - Mortality of grower rabbits of 10-15%
 - Age at first mating of 20 weeks
 - See www.csiro.au/crusader for Enterprise Model
- Industry information:
 - Cost of feed is about \$450 tonne bulk
 - Price for rabbits is about \$7.30 dressed weight or \$3.80 liveweight
 - Rabbit retails for between \$15-\$20/kg
 - Demand is strong with most processors not currently meeting demand

Production of rabbit meat by country in Europe



What is happening in Europe?

- **Statistics for the French rabbit industry are:**
 - Number of kittens born per litter 10.4
 - Number of kittens born alive per litter 9.9
 - Number of kittens weaned per litter 8.4
 - Turnover of does per year of 120%
 - Mortality of grower rabbits of 7% when there is no ERE and 15-25% when ERE is evident
 - Age at first mating of 19.5 weeks
 - Gross margin of €92/doe/year (\$A153.30), soon to come “French Enterprise Model” based on AI
- **Industry information:**
 - Cost of feed is about €200/tonne (\$A333) bulk
 - Price for rabbits is about €1.70/kg liveweight (\$A2.83)
 - Rabbit retails for about €8.00/kg (\$A13.33)
 - Demand in Europe is steady with small decrease in markets due to image of rabbit as slow to cook and traditional

Acknowledgments to Peter Low for photographs



Industry challenges

- Declining consumption of rabbit meat
 - Working with larger retailers to improve image and versatility of rabbit products. Heads are now removed in supermarket rabbits in many parts of France. In Italy effort has gone into rabbit cuts with “quick cook” focus. Best suited to heavier carcasses,



Industry challenges

- **Declining consumption of rabbit meat**
 - Working with larger retailers to improve image and versatility of rabbit products. Heads are now removed in supermarket rabbits in many parts of France. In Italy effort has gone into rabbit cuts with “quick cook” focus.
- **Control of ERE and Pasteurellosis**
 - Enormous use of antibiotics still underpins the rabbit industry with only small level of abatement since the first occurrence of ERE. French exports to Japan in 2006 were banned for a period because of presence of AB in the meat.
 - Genetic improvement in gut health being introduced into paternal lines in Grimaud, system based on methodology developed in Australia.
 - Plans for a large gene mapping experiment in France to identify genes for resistance to bacterial infection as the incidence is too low for direct measurement as we do with Crusader.

Industry challenges

- Introduction of EU regulations covering rabbit housing
 - This is major issue for the industry in Europe as none of the commercial cages currently meet the proposed standard. The proposed size is 40cm wide x 105cm deep and 45cm high (or 60cm high where the cage has an internal platform) for a multi-purpose cage.
 - New regulations are likely to set the limit at 40kg of rabbit/m² of cage floor.
 - Each country will implement the regulations within their own system of agricultural governance.



45 cm high, 40 cm wide x 105cm deep
(60cm high where the cage has an
internal platform)

French dual maternal/grower cages are
approx 30 cm high, 37 cm wide and 100 cm
deep (smaller than recommendation).



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 - Each country will implement the regulations within their own system of agricultural governance.
- **Improvements in efficiency of production**
 - Feed conversion efficiency is high on the agenda for the French, with experiments commencing in July this year to investigate the best way to introduce it into a breeding program.
 - Doe longevity (note turnover increase in earlier presentation)
 - Semen quality and AI
 - Better diets for kittens pre-weaning to help reduce stress and ERE (up to 5 different formulations)
 - All-in all-out systems - improved efficiency and better disease control





What is happening in Australia?

- Investigation of feasibility of introducing feed conversion efficiency to the Crusader breeding program
 - Work is commencing this month to measure the individual feed intake of grower rabbits and to evaluate a system for including this trait in the breeding
- Evaluation of the disease resistance of Crusader stock compared to unselected industry rabbits.
 - Will Crusader rabbits perform just as well as normal rabbits fed antibiotics?
 - Contribution of Crusader stock to the French gene mapping experiment
- Change in R&D investment partners
 - Now that the Crusader breeding program is fully commercialised CSIRO's involvement has ceased

Division Livestock Industries

Dr Sandra Eady
Principle Research Scientist

Phone: 02 6776 1394
Email: sandra.eady@csiro.au
Web: www.csiro.au/crusader

www.csiro.au

Thank you

Contact Us

Phone: 1300 363 400 or +61 3 9545 2176
Email: enquiries@csiro.au Web: www.csiro.au

