

# AWI R&D Update

## Fox control



Community-based fox control programs targeting the weak points in fox lifecycles can cost-effectively increase lamb marking percentages by 20 per cent.

Widespread Australian studies show sheep and rabbits make up as much as 70 per cent of fox diets. Lamb predation by foxes averages 2-3 per cent per year, but can reach 30 per cent where fox numbers are high.

Foxes are one of the main causes of the decline and extinction of many small and medium-sized native animals.

Foxes cost Australian agriculture and the environment over \$227 million a year.

### FOX CONTROL TIPS

- Fox baits must be buried, by law in most of eastern Australia. Baits buried 5-15cm deep are less likely to be taken by native animals.
- Bury baits at a rate of 5-10 baits/km<sup>2</sup>.
- Scent lures like FeralMone™ developed with AWI support help attract foxes to buried baits.
- Where practical, collect any remaining baits within three weeks of laying them, to avoid foxes recovering after eating old, less toxic baits and becoming 'bait shy'.
- Increase lamb survival by taking part in coordinated, community-based fox baiting and/or shooting programs that target weak points in fox lifecycles – during breeding in late winter/spring, and when pups disperse in late summer/autumn. In 2001, a trial of the community-based nil-tenure process reduced stock losses from wild dogs and foxes by an average of 75% each year in southern NSW.

### AWI'S RESPONSE TO FOX PROBLEMS

AWI invests up to \$100,000 each year in fox controls to increase lamb survival, and wool and meat production. Fox control also benefits from AWI's current commitment of over \$2 million to wild dog control, including the development of a new fox and wild dog toxin.

### KEY RESEARCH AIMS AND OUTCOMES

#### Making foxes infertile

AWI modeling of fox populations showed potential fertility controls would be much less effective than alternatives such as poisoning.

The models showed that an annual campaign of fox sterilisation would reduce fox density by about 30%, compared to an 80% reduction from an annual campaign of poisoning using the same effort. Furthermore, sterilised foxes would continue to prey on both native animals and livestock.

Baiting and shooting remain the most effective fox controls.

#### New fox baits in the pipeline

AWI is working with the Invasive Animals CRC (IA CRC) and Animal Control Technologies to develop a new fox and wild dog toxin called PAPP, or para-aminopropiophenone. PAPP gradually reduces oxygen to the brain, effectively sending the fox to sleep before it dies within two hours of taking the bait. Unlike 1080 (the most commonly used fox poison) the new toxin has an antidote for working or pet dogs that are accidentally poisoned. PAPP baiting trials show large drops in fox activity, with many farmers finding dead foxes for the first time.

PAPP is being assessed for registration and should be commercially available within a couple of years. PAPP is not a replacement for 1080, rather an additional tool to control foxes.

By working together, woolgrowers and other natural resource managers are showing how a concerted and committed approach to fox control can improve biodiversity and renew confidence for woolgrowers wanting to retain or grow their flocks.

## Tools and information

AWI supports several major projects in fox control. Learn more about these projects at: [www.wool.com/pestanimals](http://www.wool.com/pestanimals)

The Invasive Animals Cooperative Research Centre (IACRC) and its partners including AWI work together to reduce the impact of invasive animals like foxes on Australia's economy, environment, and people. Visit: [www.invasiveanimals.com](http://www.invasiveanimals.com)

Fox PestSmart Toolkit – the IACRC and its partners publish a range of guides and tools on practical fox control. For free copies of the resources below, email the IACRC at [contact@invasiveanimals.com](mailto:contact@invasiveanimals.com) or visit: [www.feral.org.au/pestsmart/foxes](http://www.feral.org.au/pestsmart/foxes)

- Managing Vertebrate Pests DVD – using foot hold traps for the capture of wild dogs and foxes across Australia
- Monitoring techniques for vertebrate pests – Foxes
- PestSmart Case Study: coordinated group fox programs
- PestSmart Factsheet: Fox shooting and hunting

Improving Fox Management Strategies in Australia: recommendations to better coordinate, measure and manage fox impacts, published by ABARES. Download your free copy from: [www.daff.gov.au/abares/publications\\_remote\\_content/publication\\_topics/invasive](http://www.daff.gov.au/abares/publications_remote_content/publication_topics/invasive).

FeralScan - a free web tool to help coordinate local pest animal control activities by community mapping of pest animals and the damage caused. Record your fox sightings online at: [www.feralscan.org.au/foxscan/default.aspx](http://www.feralscan.org.au/foxscan/default.aspx)

PestSmart YouTube channel - video clips with practical instructions on a range of pest animal control methods, new products and monitoring techniques. Learn more at: [www.youtube.com/PestSmart](http://www.youtube.com/PestSmart)



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