PESTS COST US ALL

Best Practice Feral Goat (Capra hircus) Management

Insert Presenter Name
Insert Presentation Date
Introduction

This module is part of a series of modules in the Pests Cost Us All project.

The project aims to improve and update landholder knowledge in pest animal management and weed management across South Australia.

This will be achieved through provision of training and awareness sessions and demonstration sites.

The Pests Cost Us All project is part of the Australian Government’s Agricultural Competitiveness White Paper, the government’s plan for stronger farmers and a stronger economy.
Learning outcomes from this module

• Understand the problems feral goats create
• Understand the importance of working as part of a group for feral goat management
• Develop objectives and a plan for feral goat control on your property
• Understand legal requirements for feral goat control
• Select appropriate techniques for feral goat control
• Employ correct timing for feral goat control on your property (control calendar)
• Assess the effectiveness of your feral goat control activities
Before we start – your issues

What other issues would you like to address in relation to feral goat management?

We will record these and refer to this list throughout the session.
Best practice feral goat management
key steps

1. Define the problem
2. Determine objectives
3. Develop plan
4. Implement plan
5. Monitor, evaluate and revise plan
Step 1. Define the problem

- Understand feral goat biology and behaviour
- Know where they are distributed on your property/region
- Understand the impacts

- Then you can begin to develop a plan
(Step 1). Distribution

- Widely spread throughout agricultural and semi-arid regions of SA
- The size of the home ranges of feral goats vary across Australia
- When water is abundant, groups and home ranges are generally small and well dispersed
- Groups are much larger in semi arid pastoral regions
(Step 1). Identification

- Colouration is highly variable
- Males have a distinctive pungent smell
- Males are larger than females
- Both male and female goats have beards
DIET AND HABITAT

• Feral goats live in grasslands, scrub lands, rocky outcrops and semi-open or open forests

• Goats are generalist herbivores that select the highest quality food available, BUT they will eat just about anything

• During dry times goats need to drink water
(Step 1). Biology and Behaviour

BREEDING

• Females can begin breeding at 6 months of age or when they weigh over 15 kg
• Gestation period is only 150 days
• Twins and triplets are common
• Goats are social animals, and are found in herds
• Wild dogs, foxes, wedge-tailed eagles and feral pigs are all predators of feral goats
• Goats have the potential to double their population every 1.6 years
(Step 1). Feral Goat Impacts

Invasiveness

• Capable of securing and ingesting a wide range of food
• Highly adaptable to different environments

Agricultural

• Feral goats have been estimated to cause losses to livestock farming of $25 million per year\(^1\)
(Step 1). Feral Goat Impacts

Environmental

- Ecosystem change/ habitat alteration

- Negatively affect conservation values and biological diversity by damaging vegetation and competing with native animals
Goat meat is the most highly consumed meat source in the world.

Feral goats provide a source of income to pastoralists in dry times.

Over the hook meat prices hit all time high in early 2017.
Step 1. Define the Problem

• Identify areas that may be hotspots for activity
• Assess habitat conditions and food abundance (are they suitable?)
• Identify signs of presence and damage
• Map the information gathered
(Step 1). Property Mapping

Identify potential activity sites and assets

- Steep ridges and native vegetation
- Water source
(Step 1). Property Mapping

Know your property – map your problem

○ = signs of goat damage

● = goat sighting
Step 2. Determine Objectives

What do you plan to achieve and what should your objectives be?

• Measurable Objectives
• How much effort should you put in?
• Focus on reducing damage from feral goats, not just numbers
Step 2. Determine Objectives

• Are you trying to protect your livestock, native fauna, water sources or other infrastructure?
• Are you planning to undertake broad scale control for population reduction?
• Are you planning to conduct proactive control to maintain and limit impacts in the future?
Step 3. Develop a feral goat management plan

- Scale and approach of the control program
- Identify and understand relevant: Legislation, Work, health and safety considerations and animal welfare requirements
- Identify and evaluate suitable control options
- Plan – what will be done and when
Step 3. Develop a feral goat management plan

- Determine management levels – property, local, regional
- Integrated plan/co-ordinated approach - long term
- Choose your strategy – feasibility/cost effectiveness, current distribution and persistence
Step 3. Develop a feral goat management plan

Include:

• Where you will do the control
• What tools you will use
• When will you do the control
• How you will monitor for success
• Record keeping
(Step 3). Benefits of working together

- Co-ordinated control
- Reduces re-introduction from neighbouring properties
- Useful contacts (regional programs and officers)
- Any other benefits?
- Local plans/projects – what is happening in the region?
(Step 3). Legal considerations

- Natural Resources Management Act 2004
- Pastoral Land Management and Conservation Act 1989
- Animal Welfare Act 1985
- Other Acts

State Policy on Goat Control currently under review (June 2017)
(Step 3). Work Health and Safety

- Work Health and Safety Act 2012
- You have a duty of care to employees and people working on your property
- YOUR welfare is also important
- Risks of working with firearms
- COPs and SOPs
(Step 3). Management Options

• Management is a complex issue
• Some control techniques include:
  • Judas goats
  • Trapping (water points)
  • Mustering
  • Shooting (ground and aerial)
Judas Goats

• Relies on social nature of goats
• Sterilised goats marked with radiotelemetry collars gravitate to and detect wild goat herds
Trapping & Mustering

- Timing
- Trap and muster methods
- Animal welfare considerations
- SOPs
Shooting - aerial

- Useful for areas inaccessible for ground shooting
- Can be used with both high and low density goat populations
- Can be used in conjunction with other control techniques
Useful:
- for controlling small, isolated populations
- where other techniques cannot be used
- as a secondary control method

Farmers assist website to connect with Sporting Shooters Association.
Other control methods

• Fencing
• Poisoning
• Habitat manipulation
• Biological control
Step 4. Implement Plan

- Use your plan and implement actions
- Communicate with neighbours and work together
Step 5. Monitor, Evaluate and revise plan

Measure outcomes:
- Assess feral goat damage
- Determine feral goat abundance/activity
- Costs of plan implementation

Evaluate your plan:
- Is it working?
- Do I need to do more/something different?
- How do I stop future impacts?
- Discuss with neighbours

Regularly review the plan (and mapping) and update when needed
Step 5. Monitoring methods

- Aerial surveys
- Ground surveys
- Faecal pellet counts
- Mark Recapture method
- During control programs- number of goats removed per unit effort

- monitoring-techniques-for-feral-goats
Step 5. Monitoring - Feral GoatScan

**Feral GoatScan**

Record feral goat activity in FeralGoatScan

How to use FeralGoatScan in 2016

FeralGoatScan is a community website that allows you to record and map sightings of feral goats, damage, and control activities in your local area. Use data to identify priority areas for feral goat control, and work with your local land managers to implement control in a coordinated way.

1. Register your details here.
2. Start mapping feral goats
3. Find out more.

**Winner of Banksia Award 2016**
Further Information

PestSmart

Biosecurity SA Feral Goats

Feral goat control advice

Natural Resources (Department for Environment, Water and Natural Resources): www.naturalresources.sa.gov.au
Review - key messages

- Understand the problem - biology, ecology, impacts
- Work with others
- Set objectives and develop plan
- Know your legal responsibilities
- Select appropriate techniques
- Monitor, evaluate and adapt
Review

Are there any issues that were recorded earlier that were not addressed?

What ideas and plans do you have for managing feral goats in your area?

Any other questions?
FEEDBACK AND EVALUATION

Please take some time to give us your feedback so we can improve this module for future delivery.

Thank you for your participation