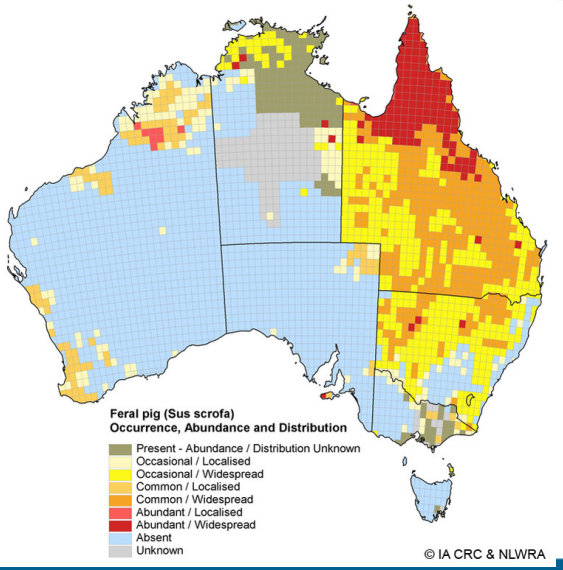
acta
Excellence in Pest Animal Management

# Field Assessments of HOGGONE® meSN® in Australia

**J. Wishart**, L. Staples, S. Humphrys, D. Marshall, K. Vercauteren, N. Snow, D. MacMorran, J. Foster.

- Present since European settlement
- Initially near settlement areas
- Now spread over 45% of the mainland
- Occur in all states & territories
- Damage biodiversity & agriculture
- Already carry several infections diseases
- Potential vector of exotic diseases




Ground baiting


Trapping


Aerial shooting


Ground shooting

- Improve humaneness and target specificity
- Subjected to pen & field tests
- Evolved considerably
- Semi-solid peanut paste
- Microencapsulated Sodium Nitrite
- Packaged in sealed plastic tray
- 1.25 or 2.5 kg of product per tray

# Sodium nitrite

- A type of food preservative
- Causes fatal methemoglobinemia
- Reduces bloods ability to carry oxygen
- Symptoms short & limited (30mins)
- Breaks down in the environment
- Very low secondary poisoning risk
- Must be microencapsulated

- Semi-arid
- 40$^{o}$C & zero rainfall during trial
- Pigs caught in water-point traps
- Traps became pens (~ 3 acres)
- Water, shade & some natural food
- Caught 107 feral pigs in 3 pens
- ~ 50 feral goats & ~ 10 kangaroo's
- Numerous birds & Lace monitors

Day 1 – Grain only

Day 2 – Grain & Placebo HOGGONE®

Day 3 – Placebo HOGGONE® only

Day 4 – Toxic HOGGONE® meSN®

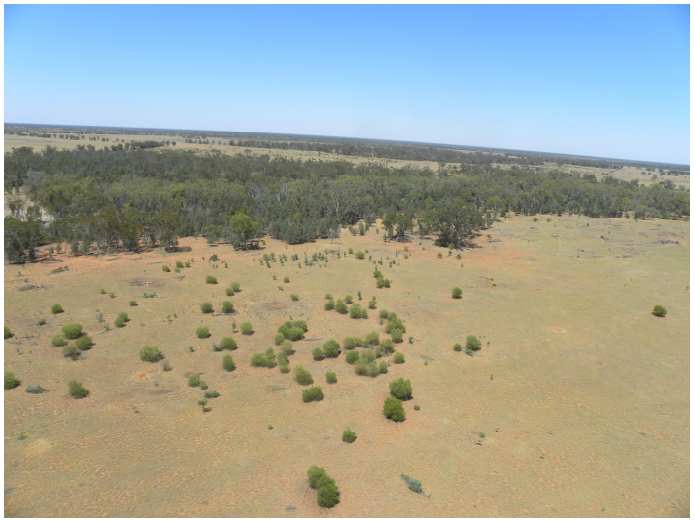
Day 5 – Toxic HOGGONE® meSN®

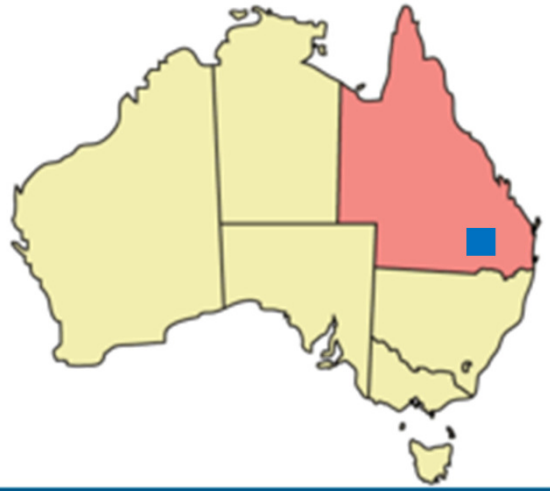
- Vomit searches
- Bait-uptake
- Bait station visitation
- Carcass counts

| Poison baiting with HOGGONE® Feral Pig Bait | | |
|---|---|---|
| **Night** | **Bait-uptake** | **Knockdown** |
| 1 | 17 kg of 67.5 kg | 90 of 107 |
| 2 | 2.2 kg of 15 kg | 1 of 17 |

***Total knockdown 85%***

- Sub tropical
- Two large farms (~ 25,000 acres)
- 40$^{o}$C & some showers during trial
- Free ranging feral pigs
- Free ranging non-targets
- Pre-baited “hotspots” with grain
- Standard baiting procedure



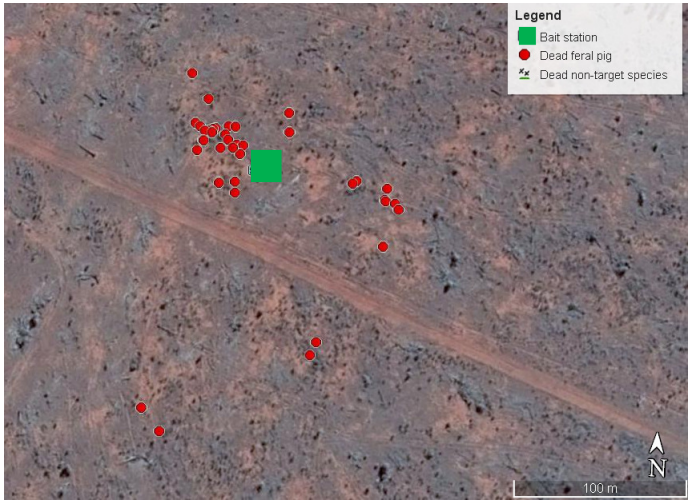


**Linear mixed models used to examine interaction of treatment and time**.

- Bait uptake
- Landscape (passive)
- Bait station (active)

- Carcass and vomit searches
- Knockdown of collared animals

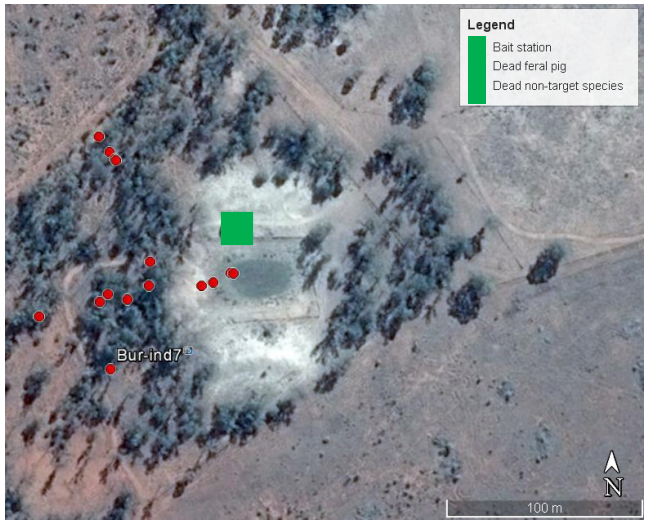
- 64% decline at stations (P < 0.001)
- 66% decline in uptake (P = 0.040)
- 80% decline landscape (P < 0.001)
- 115 feral pigs found dead
- All within 200m of bait stations
- 2 of 3 collared pigs killed



- Registration package
  - Chemistry and manufacture
  - Toxicology
  - Metabolism and kinetics
  - Residue and trade
  - Occupational health and safety
  - Environment
  - Efficacy and safety
- Submitted in August 2017
- All feedback so far positive

1. Bait when food & water are scarce
2. Work with neighbours
3. Put bait near fresh pig activity
4. Cluster pigs with grain first
5. Train pigs onto non-toxic factory bait
6. Toxic bait for two nights
7. Aim for maximum kill on night 1

***Use more than one control option!***



- **For further information visit**
- http://www.animalcontrol.com.au/
- **Contact details**


- Jason Wishart
- Email: jwishart@animalcontrol.com.au


Invasive Animals CRC

Australian Government
Australian Bureau of Agricultural and Resource Economics and Sciences