

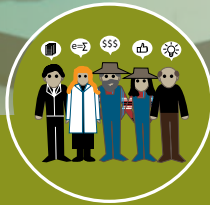


CENTRE FOR
INVASIVE SPECIES SOLUTIONS

COLLABORATION

INNOVATION

IMPACT



INNOVATION SUMMARY

NEW PEST ANIMAL AND WEED MANAGEMENT TOOLS AND STRATEGIES THROUGH
COLLABORATIVE RESEARCH, DEVELOPMENT AND ENGAGEMENT

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OUR FOUR INNOVATION PLATFORMS

The Centre has and continues to deliver a pipeline of pest and weed solutions. This includes the first national release of a rabbit biocontrol agent in 20 years, the first new wild dog/fox toxin in 50 years, new feral deer control solutions, the award winning community-based pest mapping and management FeralScan system, and national platforms for best practice pest animal and weed management information.

Detection, surveillance & Response



DELIVERING NEW DETECTION AND SURVEILLANCE TOOLS AND MANAGEMENT SYSTEMS

NATIONAL PLANS

- National incursion management framework for invasive species
- Asian Black-spined Toad (ABST) Incursion Response Plan

GENETIC SURVEILLANCE

- eDNA detection technology
- Portable, real-time eDNA applications (priority pest fish, reptile (ABST), invertebrate (eg. Khapra beetle) detection

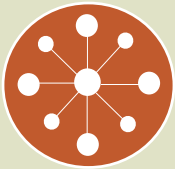
DIGITAL SURVEILLANCE

- Automated e-commerce priority weed and vertebrate pest surveillance tool
- Portable real-time AI based detection (eg. Weed ID app.)
- Automated acoustic monitoring device for starlings and possibly ABST
- Automated thermal imagery analysis platform for multiple pest species

SURVEILLANCE SYSTEMS

- Integrated passive/active surveillance networks
- Eradication decision support tool – enabling cost-effective decisions for managing invasive pest eradications

Biocontrol and genetic biocontrol technologies



DELIVERING A PIPELINE OF NEW BIOCONTROL AGENTS

RABBITS

- Long term and sustainable rabbit biocontrol agent pipeline & optimised management strategies. Evaluation of RHDV2 as a biocontrol agent

TILAPIA

- Tilapia biocontrol: prospecting, evaluation and business case

GENETIC BIOCONTROL

- Genetic technologies for pest animal control – priority framework developed and proof of concept in a vertebrate model pursued

Integrated Landscape Management



DELIVERING NEW TOOLS AND LANDSCAPE-SCALE MANAGEMENT STRATEGIES

WILD DOGS

- Planning and trialing landscape-scale integrated predator management
- AI based Wild Dog Alert/intelli-trap prototypes and innovation
- PAPP based lethal trap device (started 2010)
- Updated wild dog management toolkit, including for integrated peri-urban management
- Assessment of exclusion fencing benefits (Qld, WA)

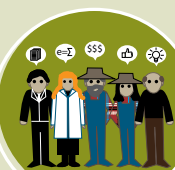
DEER

- First nationally validated best practice deer management toolkit, including new national standard operating procedures
- Feral deer aggregator device
- Role of deer in livestock disease transmission
- Improved wild dog and deer management in peri-urban landscapes

FERAL CATS

- National registration of a 1080 based feral cat bait

Community Engagement and Capability



EMPOWERING COMMUNITIES TO TAKE ACTION AND BUILDING RESEARCHER CAPABILITY

NATIONAL COORDINATION

- National Wild Dog Management Coordinator
- National Deer Management Coordinator

E-EXTENSION AND COMMUNITY MANAGEMENT PLATFORMS

- PestSmart: vertebrate pest best practice management portal, glovebox guides
- WeedsAustralia: weeds best practice management portal
- Community Engagement Hub: best practice community engagement portal
- Enhanced on-line FeralScan/WeedScan community management system, including alert notifications and dashboards

TRAINING

- Certificate III pest management (wild dog) module for VET delivery (started 2012)

ACCELERATING ADOPTION

- Behaviourally effective communication and engagement research and application

POST GRAD RESEARCH STUDENT CAPABILITY

- Balanced Researcher PhD and post doc leadership program

A MULTI BILLION DOLLAR PROBLEM AND MAJOR EXTINCTION DRIVER

Rabbits, feral cats, wild dogs, foxes, feral pigs, feral deer, carp, prickly acacia, parkinsonia, serrated tussock, and fireweed are the tip of a ferals and weed iceberg that have cost Australia \$389.6 Billion since the 1960s. Their cost over the past decade has nearly tripled from the 1970s and is growing – for agriculture the annual cost for weeds is nearly \$5 Billion while feral animals is over \$500 million.

Invasive species have been the major driver of native species extinctions since 1961, and impact over 8 in 10 nationally listed threatened species.



CENTRE FOR
INVASIVE SPECIES SOLUTIONS

DELIVERING NEW INNOVATION

Australia's premier National Collaborative Invasive Species Research and Innovation Centre delivering tools and systems to better manage Australia's invasive pests and weeds.

NATIONAL AND COLLABORATIVE

National organisation that takes a strategic approach to both collaborative invasive pest and weed management innovation, and has the tenacity and know how to deliver in a complex regulatory environment. Shared missions and responsibility between CISS, government, industry, NRM, community, research members enables effective co-investment and leveraging.

TRUSTED AND EXPERIENCED

A strong reputation for being an expert problem solver that continues to develop new technologies and innovation to manage invasive species.

LEADER IN ADOPTION, ENGAGEMENT AND EDUCATION

Coordinates best practice management with existing tools, education, capacity building stakeholders and adds new tools in a planned approach that maximises control of pests and weeds. Furthermore, our cross-sectoral and cross-jurisdictional membership provides a strong vehicle to develop and implement technologies that meet the needs of governments, industry, NRM bodies and community groups.



OUR MEMBERS AND PARTNERS

Full Members



Associate Members



Partners

