



TASMANIAN COMMUNITY FOREST AGREEMENT RESEARCH INTO ALTERNATIVES TO 1080

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Introduction

It's been a few months since the last newsletter from the Alternatives to 1080 Program, but as you'll see from this newsletter the Program is continuing to move ahead on many fronts.

Landholder Attitudes to 1080

The response to Rural Development Services mail-out survey into landholder attitudes to the use of 1080 has been very strong, with over 320 respondents from the pool of 1,160 surveys.

Dr Carla Mooney, from RDS, gave a preliminary analysis of the mail-out survey to the Stakeholder Advisory Group on November the 19th.

It was noted that some caution needs to be used in interpreting the results, remembering that this survey was only sent to farmers, and non-industrial forest growers, who have been issued a 1080 poison permit in the last 10 years. This group would have had to have suffered high browsing pressure to get

such a permit. It is therefore probable that there will be a response bias towards landholders with a strong interest in either native browsing animals or the use of 1080 poison.

Some of the key responses included:

- 97% of respondents thought that native animal browsing damage affected total farm income through productivity loss, with losses ranging from 2% to 99%.
- 74% thought that in the overall scheme of their property, managing native animal browsing damage was "very important".
- 45% of respondents thought that their last 1080 poison operation was effective for one season, 18% for one year, 24% for 2 years and 13% for 3 or more years;
- 55% said they wanted to, or had attempted to use 1080 again. 43% of respondents said the main reason they haven't used 1080 again was because it was too hard to get.
- 96% of respondents used shooting to control browsing damage, with 67% rating it as a somewhat satisfactory control, and 1% rating it as a completely satisfactory control.
- 54% of respondents had constructed special animal proof fencing, usually on boundary lines alongside forested or plantation areas. Most respondents thought it gave satisfactory control, with 6% saying it gave completely satisfactory control.

The most common reasons given for not constructing a fence were construction costs, followed by

inappropriate terrain and maintenance costs.

This mail out survey has been followed up with ninety face-to-face interviews to get a more detailed understanding of the responses received from the survey.

It is planned that the final outcomes from this project will be presented as part of a two-day workshop of key stakeholders, technical experts, and deed recipients to be held on the 7-8 of April 2008.

Community attitudes to Feratox™

Connovation's Humane Herbivore Control Project, which is examining Feratox™ as an Alternative to 1080 poison, held consultative meetings throughout Tasmania during the first week of October.

A report outlining the feedback from these consultations has now been provided to the Implementation Committee, and following the strong positive feedback, funding for part two of this deed has commenced.

Genetic resistance to brushtail possum browsing

The University of Tasmania's trials into whether brushtail possum aversion for genetically resistant seedling stock is consistent state-wide, or whether different populations show different preferences depending on whether they have coevolved with particular populations of eucalypts was completed in December.

The report for this project is expected to be completed by the end of December.

Project Officer Program

Mersey Box Trap Trials

This trial, which has been reported on in previous editions of the newsletter, was conducted in the North-east of

Tasmania in July-August to explore the effectiveness of Mersey traps in an agricultural setting. The trapping significantly reduced the wallaby and possum populations on all 3 treatment sites.



Figure 1 Rushy Lagoon – Enclosure plot at control site (no trapping), Nov 2007

The impact of the removal of wallabies and possums on pasture mass, and the rate of in-fill of the populations post-trapping, is being monitored by enclosures and spotlighting, respectively.



Figure 2 Rushy Lagoon – enclosure plot at treatment site (trapping), Nov 2007

The initial post-treatment pasture measuring and spotlighting is being undertaken now, and preliminary results are showing a difference in pasture growth between the control and trapped sites.

Figures 1 and 2 show enclosure plots for the control and treatment sites at Rushy Lagoon, the high-intensity trapping site.

Effectiveness of shooting to reduce browsing pressure by macropods and possums

A large Midlands property has been selected to undertake the first shooting effectiveness trial. This trial aims to objectively evaluate whether 'best practice' shooting methods can effectively reduce browsing population numbers and pasture loss.

Two sites will be used as controls (no shooting) and two comparable sites will be used as treatments (shooting).

Initial spotlighting has indicated that there is no significant difference between the average number of wallabies and possums seen at the control and treatment sites.

At each site there are 5 enclosure plots, and at the northern sites the full enclosures are inside partial enclosures (Figure 3). This arrangement allows more effective comparison of no browsing, native wildlife browsing and domestic livestock browsing losses.

Shooting on this property commenced in November 2007.



Figure 3 Establishing semi-permeable enclosure plots

Home Range Research

The *Alternatives to 1080 Strategic Plan* provided a commitment to fund "significant behavioural research into target animals ... to improve the understanding of the effectiveness of

lethal control techniques on browsing damage, including developing an understanding of animal immigration response after lethal control campaigns."

A funding round was recently advertised to cover this area, and the Implementation Committee has agreed to fund two complementary research projects into this area.

- A group consisting of Dr. Clive McMahon from Charles Darwin University and Prof. David Bowman and Prof Hamish McCallum from the University of Tasmania have been offered funding to undertake the primary research into this field.
- Dr Ivo Edwards has been offered funding to further develop his night-vision wildlife monitoring technology to complement the above, and other, research programs being funded by the Alternatives to 1080 Program.

These funding offers are still under negotiation, and more information will be provided in upcoming newsletters.

New Repellents Funding

A deed has now been agreed with Connovation Ltd, in collaboration with Lincoln University, to advance research into improving the effectiveness of contact repellents by combining the best of existing 'actives', including predators' odours in a single formulation.

The aim of the research is to fast-track the development of more effective repellent formulations targeting possums and wallabies to provide more prolonged multi-species browsing control.

As mentioned in previous newsletters, existing research has seen the identification of a large number of repellents and deterrents including predator odours, egg and acrylic combinations, protein hydrolysates e.g. casein, hot irritant secondary plant compounds such as capsaicin, emetics,

gritty materials, bitter agents e.g bitrex and synthetic fermented egg (SFE).

In an effort to afford better protection of new growth this project will develop and test new formulations deliberately combining and optimising the best, most effective, active ingredients identified in the scientific literature. The project will capitalise on earlier research investment and purposely move away from comparative testing of single active ingredients and products containing single actives. The project will develop a contact repellent that will work through several different mechanisms including taste and fear, combining the characteristics of “contact” and “area” repellents.

The Alternatives to 1080 Program is investing \$23,000 in this Project, and it is expected to be completed by April 2008 where field trials for this and other odour-based repellents are planned.

King Island Program

A funding agreement has now been signed with NRM King Island to undertake the first phase of research into the use of commercial harvesting / professional culling as an Alternative to 1080.

This phase will involve survey work to determine population density estimates of Bennett's Wallabies across King Island on 'open' areas, principally pasture lands.

Mark Branson, will be undertaking this research, with a steering committee consisting of members of the local NRM and TFGA groups on the Island, as well as scientific experts from TIAR, DPIW.

Several different monitoring techniques have already been trialed in conjunction with TIAR researchers and it is expected that the main monitoring effort will commence in January.

This phase of the Project is due to report in April 2008, after which it is proposed to monitor the effects of

different intensities of harvesting on local wallaby population levels and the associated pasture loss.