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TASMANIAN COMMUNITY FOREST AGREEMENT

RESEARCH INTO ALTERNATIVES TO 1080

NEWSLETTER 10 **July 2007**

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Editors Overview

On Friday 29th June, along with about thirty others, I attended Rural Development Services' workshop on Survey Design for *Landholder Decision Making on the Use and Non Use of 1080.*

As we worked through the program, farmers had the opportunity to put their problems squarely on the table. Sometimes, in the day to day activities of running the Program, you become distanced from the reality of the problems being faced by landholders. It's a grounding experience to be reminded of the efforts that farmers are putting into wallaby and possum control on their properties and the losses they incur. It helps keep the Programs work in perspective.

As reported later in this Newsletter, the usage of 1080 for native animal browsing control has continued to decrease this financial year, whilst animal density and distribution remains at historically high levels. Based on comments from the recent forum this is placing enormous browsing pressure on farmers.

Figure 1 Native animal browsing at Rural Development Services Workshop

Shooting and game fencing seem to be the main ways that farmers are dealing with this problem. The increasing number of wallabies and possums taken under crop protection permits seems to support this (more below), as does the recent number of articles in the media on fencing as a wildlife management tool - a topic also covered in this months newsletter.

Grants Program Update

July marks the first quarterly reporting period for all grant recipients.

Most projects are still in the early phases, but it is evident from the reports coming in that progress is being made.

CRC for Forestry Reports

One of the first grants scheduled to finish is the CRC's research program investigating the aversion of possums to genetically resistant seedling stock. Julianne O'Reilly-Wapstra reports that this is progressing well, despite some

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minor set backs due to slower than expected growth rates in seedling stock in the nursery. Seedling chemistry will be evaluated in July with the trials taking place in August and September and the final report should be finished by October.

After discussions with industry partners, the other CRC research project looking at manipulating seedling palatability and other non-lethal techniques for managing browsing damage has added two additional seedling treatments into the first year's field trials:

1. A seedling guard treatment of nylon 'stockings' (onion bags) to be placed on seedlings prior to planting.
2. A high phosphorous fertilisation treatment. This will be administered concurrently with the original fertilisation treatments.

Somewhat ironically, this latter project has had a slight set back due to possums entering the poly-house at the Perth nursery and damaging a total of 1140 trial seedlings (hopefully not the genetically resistant stock).

Despite this set back, it's very positive to see grant recipients working closely with industry partners in refining their research projects.

Other Grant Progress

Some highlights from other grants include:

- Prof. Nortons's team at TIAR have identified a PhD candidate - Mr Rowan Smith – for their investigations into developing decision support tools for quantifying the impact of native wildlife on pasture growth.
- Connovation Ltd. are well progressed in their review of literature on the use of cyanide as a humane herbivore control tool, and are planning on meeting with RSPCA in August to begin discussing its use in Tasmania.

Figure 2 Bennetts Wallaby at bait station.

- Forestry Tasmania is progressing well on coupe selection and data monitoring protocols for their trials into targeted culling of browsing species.
- Dr Statham's trials into species-specific delivery mechanisms continue. As can be seen in Figures 2 and 3, he's finding wallabies don't seem to mind putting their heads in confined spaces to obtain feed.

Figure 3 Rufous Wallabies lining up for a feed

- Dr Edwards' early trapping work has encouraged him to place an increased emphasis on automatic feeders and the potential of multi catch traps and reduced emphasis on siting of single traps due to the overall cost effectiveness of these approaches.

The Technical Panel met on Tuesday, 10th July to review and discuss the progress of all these grants.

The last two grants …

The two outstanding grant deeds are now almost finalised. Tasmanian Plantation Management Services' deed has now been agreed and is in the process of signing as this Newsletter goes to press. Connovation's second deed is also close to finalisation.

Project Officer Update

Having completed preliminary baiting preference trials, the Project Officers have been concentrating their efforts this month on identifying properties in the north east of the State for some trials into the impact of trapping intensity on control effectiveness.

Monitoring over the last month has confirmed high animal densities on the selected sites, and the experimental design is being finalised so that trapping can start soon.

This trial will compare three trapping intensities ranging from a high intensity regime where traps are laid every 5 to 10 metres (100-125 traps per km), a medium intensity regime (50-70 traps per km) and a low intensity regime (20-30 traps per km).

Understanding the differences of these alternatives on costs, capture effectiveness, trapping effort (days of trapping required), short and long term browsing damage reduction and also their practicality in a farming context is seen as key to understanding the potential of trapping as an alternative control tool to 1080 in farming situations.

1080 Usage Update

The use of 1080 poison to control browsing animals has continued to reduce significantly, with statistics for 2006/07 showing a total of 1.4kg used around the State. This is down from 5.0kgs at the same time last year.

The represents a more than 90% reduction in use compared to the 15.2kgs used in 1999/00 when the Tasmania Together Benchmark figure was set.

Usage was divided evenly between the farming and private forestry sector.

The full media release on this topic is available at:
http://www.media.tas.gov.au/release.php?id=21452

Population Monitoring 2006

Results from the 2006 spotlight surveys (carried out between November 2006 and February 2007) have now been compiled and are available to Department staff for analysis.

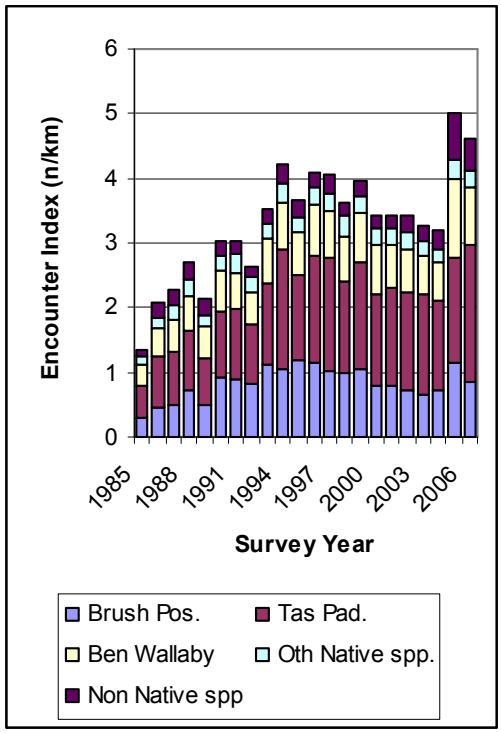

Figure 4 DPIW long term monitoring of Population Indexes (spotlight surveys).

Although year to year figures for this data series must be interpreted with caution, as can be seen in Figure 4, the encounter index for animal sightings on mainland Tasmania have remained at historically high levels in 2006.

Drought conditions and the occurrence of the east-coast fires during the survey period may have had a short term impact on the sightings of animals this

year, but certainly there is no indication that wallaby or possum populations are being impacted by crop protection activities at a State level.

A more detailed overview of the 2005 spotlighting data is available on the DPIW website at:

http://www.dpiw.tas.gov.au/inter.nsf/WebPages/JBRN-6W22EG?open

Crop Protection Take

With a continued reduction in 1080 usage and with wallaby and possum numbers at historically high levels, it is reasonable to expect that agricultural and forestry managers are increasingly using other forms of browsing damage control such as fencing and shooting.

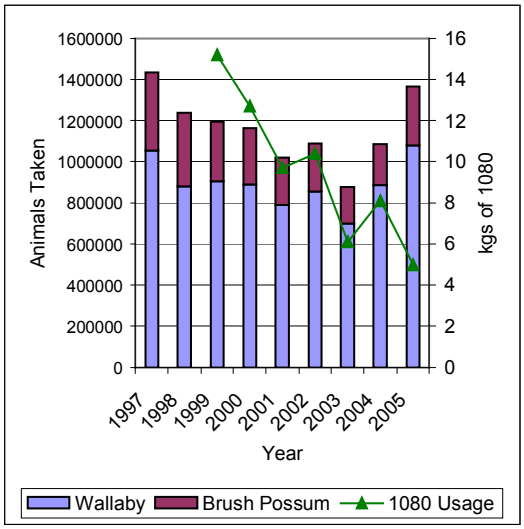

Figure 5 DPIW Estimates of Crop Protection Take and 1080 Usage.

Any shooting for crop protection purposes requires a permit or authority from the Department of Primary Industries and Water, and whilst not conclusive, there are strong indications that over the last few years shooting effort has been increasing (Figure 5).

These 'take' figures need to be treated with some caution, particularly as the average return rate over this period has been around 55-60%, and extrapolating the 'average take' out over the total number of licences issued is probably overestimating the total take[1].

However this State-wide data is strongly supported by anecdotal comments from farmers and foresters across the State, and is reflected in the more detailed information received through Property-based Wildlife Management Plans which also shows properties reporting equivalent or higher shooting takes in the past few years.

Kangaroo Meat

Commercial harvesting of wallabies and possums has been strongly supported by landholders as having a key role in finding alternatives to 1080, but contrasting views were raised during the consultation process about the social acceptability of game meat products.

Whilst this game meat has always been available at many local butcher stores, it is interesting to see that both of the major grocery retailers are now stocking these product lines.

Coles have stocked Lenah Game Meats wallaby mince and sausages in their meat section for quite some time, and Woolworths stores also recently began stocking several kangaroo meat products in their stores sourced from Macro Meats (www.macromeats.com) who are based in South Australia.

Fencing as an Alternative

There have been several interesting newspaper articles over the past month highlighting the various impacts of native animal browsing in Tasmania, and in particular the use of fencing in controlling the damage.

On June 23, *The Mercury's* regular *Good Earth* section by Paul Healy (p.9,

[1] Previous analysis of non-returns has shown that there tends to be a bias towards not providing returns when take numbers are zero or very low, hence extrapolating the average take over the remaining take is likely to overestimate total take.

"Possum Repulsion") was all about possum damage. The theme of this article was of "Hungry possums [that] have been moving farther into new territory, invading gardens that have not been affected before."

Using himself as an example, he "returned to my old garden last week, after a short break, to find that for the first time in 15 years it had been raided by our marsupial pirates, leaving most of my silver beet, spinach, cabbages, caulies, broccoli and young stone fruit smashed and stripped."

In his article Mr Healy took responsibility for the damage to his garden having become complacent with fence maintenance, and expected that with the electric outrigger on the fence restored and maintained and with the use of repellents in the interim he would be able to bring the problem back under control.

Coming out at about the same time the Winter 2007 edition of *Tasmanian Farmer* (Mark Smith "Fence out native foragers", P11) examines the impacts of native animal browsing on vineyards: "It takes years of back breaking effort to bring a new vineyard to fruition. Its undoing can take just a single night if you receive an unexpected visit from a horde of native wildlife."

The article goes on to cite two vineyards, one of which lost six tonnes of grapes in the last season worth about $10,000. The owner of this vineyard then chose to spend a further $5,000 on fencing to protect future harvests. The second vineyard owner reported losing their entire first year crop (about one tonne), but more importantly that the vine health had been compromised and that it would be a compounding problem with long-term consequences.

The article suggests fencing as the solution, and when $5,000 of fencing can save $10,000 in one season it's easy to see the payback of such an approach in industries like this.

The *Tasmanian Country* ("Where the wild deer roam", p7 22/7/07) covered another farmers problem of deer browsing damage.

The landowner in this article was using a combination of recreational shooters who value the deer for their meat, trophies and sport to help control this problem, plus building an "expensive 1.8m high fence line" with extra-strong, fine-meshed, ring-lock along the lower sections around some of the most valuable paddocks.

According to the article "Mr O'Connor said the difference in last season's grain crop yields, inside and outside the fenced areas, were as much as two tonnes a hectare."

Figure 6 Wallaby Proof Fencing on King Island

The last word in the article was interesting as it noted that "Mr O'Connor said fewer young people seemed interested in hunting – and fuel and ammunition were not getting any cheaper. He expects hunting to gradually fade away unless action is taken to reinvigorate it."

The latest issue of the *Tasmanian Country* also ran a brief article on wallaby browsing on Bruny Island ("Island

farmers on wallaby offensive", p.10, 6/7/07) where it reported that "Bruny Island farmers say they suffer worse native animal pest problems than King Island farmers."

One of the farmers, is trying out some of Ivo Edwards' traps which he reports as "being effective for the smaller rufus wallabies" but generally the main thrust of the article was that "farmers, none of whom use 1080-poison, say that wallaby-proof fencing is the only realistic option. They say that fences are effective but cost at least $10,000 a kilometre."

These articles reflect the message on fencing delivered by many farmers during the consultation phase for the Alternatives to 1080 Program.

The *Alternatives to 1080 Strategic Plan* reflects this message in saying that "there appears to be a growing number of landowners who are using game proof fencing and finding it to be part of an effective browsing management strategy. These landowners provide a potential body of knowledge on the benefits and costs of fencing."

"Despite its high initial costs, ongoing maintenance costs and varying levels of permeability, fencing is recognised by some as a primary alternative management tool to 1080 for management of browsing damage in the agricultural sector. However it is clearly not a solution by itself or for all situations and the economic costs and benefits need to be demonstrated to landowners, including how to best integrate fencing with other tools as part of an overall management strategy."

The *Strategic Plan* identified several key focus areas that will be investigated over the programs life, these are:

- How to best integrate fencing into an overall browsing management strategy, how to best erect wallaby proof fence lines on different terrains such as through gullies, roads and creeks, and how to most effectively monitor and maintain a fenceline over time including dealing with seasonal changes in browsing pressure, breaches by wallabies and wombats.
- The development of a knowledge base / case studies /extension toolkit as part of a Game Management Planning framework to allow farmers to identify the costs and benefits of wallaby fencing, including quantifying the cost effectiveness of fencing in different environments.
- Research into impacts of fencing on non target species, and as part of the overall information package, development of information on how to overcome these.

Technical Panel Chairperson

Under the *Alternatives to 1080 Operating Plan*, a Technical Advisory Panel was established to provide technical support and advice to the Implementation Committee.

The initial contract for the position of Independent Chairperson of the Technical Panel expired in June. The Implementation Committee is now seeking to fill this position for a further three years.

A more detailed document outlining the roles and requirements of this position is available, and individuals interested in seeking more information or applying for this position should contact the Project Manager (1080 Alternatives) by email john.dawson@dpiw.tas.gov.au or phone: 03 6233 6728.

Applications must be received by Close of Business Friday 10th August 2007.