Engaging the Victorian fodder industry for improved weed management

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Summary Through the Tackling Weeds on Private Land initiative, fodder industry peak bodies, Australian Fodder Industry Association and the Australian Agricultural Contractors Association, have worked collaboratively with the Victorian Department of Primary Industries to assist in the prevention of weed spread.

Keywords Fodder, stakeholders, engagement, proactive, WeedStop.

INTRODUCTION
The Tackling Weeds on Private Land (TWoPL) initiative was a 9 million dollar, three year, Victorian Government initiative that aimed to encourage land managers to collaboratively manage weeds for the long term. The initiative was delivered by the DPI on behalf of the Department of Sustainability and the Environment (DSE). The project focused on five key stakeholders: Local Government; Catchment Management Authorities; Linear reserve managers; and the garden and fodder industries.

Fodder is transported into and across Victoria in large amounts each year, particularly during periods of drought, fire or flood. There is the potential for fodder movement activities to spread noxious and new weeds that could pose serious threats to agricultural, environmental and social assets. The industry is therefore, in a key position to assist in the challenge to minimise weed spread and to promote the adoption of good weed management practices. Such practices can bring about significant economic and environmental benefits for the community.

The diverse nature of the industry provided a challenge for the development of weed spread mitigation solutions as well as the delivery of engagement activities to influence practice change. The TWoPL initiative implemented a strategic engagement approach that involved peak bodies and their members, the community and individual fodder producers and transporters.

MATERIALS AND METHODS
Engaging the fodder industry has included co-development of weed management solutions to suit demographic and core business activities. A range of activities were implemented to inform the industry about weed-related legislation and responsibilities, share knowledge, build capacity and encourage an integrated and collaborative approach to preventing new weeds and managing existing weed spread issues.

Stakeholder mapping Due to the Government’s limited previous engagement on weed spread issues with the fodder industry, improved knowledge of the industry was necessary. Analysis undertaken of key industry segments proved essential in gaining a better understanding of how the industry functions, core business activities and areas for improvement relating to weed and pest management.

Baseline survey Survey questions were asked of industry members to ascertain their attitudes and knowledge regarding weed management. The survey provided baseline data to position the industry along a continuum of awareness, acceptance and acting on their responsibilities for weed management. This information was used to measure shifts in attitudes and actions over the life of the TWoPL initiative. The ‘Aware, Accept, Act’ theory of action provided a framework to structure the collection of much of the TWoPL initiative evaluation data (King 2005). Although King (2005) identified that only 49% of those surveyed were members of an association, industry peak bodies were thought to be the most appropriate ally in information dissemination and in encouraging uptake of new approaches to weed management.

Extension material To align with the recommendations outlined in Snell (2005), a number of fact sheets were developed. These were distributed through peak body networks, and were made available at field days, conferences, DPI offices and forwarded to individual operators. The information was relevant for a range of industry segments including: exporters; contractors; policy makers; transporters; producers; and purchasers. The fact sheets provided generic information on a range of topics including: responsibilities; purchasing hay; identification; partnerships; minimising spread; hygiene practices; which weeds to manage; codes of practice; and prevention methods for emergency situations.
Capacity building  A Weed Management Grants Program was developed to encourage the industry to be involved in projects that incorporated a long term, strategic approach to weed management. Projects developed aimed to build the capacity of the industry and enable a proactive approach to the prevention of spread.

Approximately $50,000 was made available to industry bodies by the Victorian Government with a 50:50 cost share agreement. The three projects developed are described below:

- Square hay bale tracking system – AFIA (Australian Fodder Industry Association). The project emerged from the industry’s desire for quality assurance and long term sustainability and allows contaminated bales to be traced back to their place of origin.
- Weed Hygiene Code of Practice – AFIA. The aims of this project were improving quality assurance of fodder products, creating awareness of good hygiene practices and providing a consistent approach to weed spread prevention across the industry. Although this was initially aimed at contractors, the intent is to further develop other sectors of the industry in the future.
- Vehicle hygiene training – AACA (Australian Agricultural Contractors Association). This project provided training for members in weed spread prevention, through the nationally accredited WeedStop training package. Training sessions included topics such as weed identification, impacts, spread, risk management, vehicle hygiene and legislation and were held across Victoria.

Media  Throughout TWoPL, articles on the risks weeds pose, impacts and legislative issues surrounding weeds were developed for industry newsletters. Media releases for general distribution highlighting the good work being done and promoting the groups and what they can offer members were also developed and subsequently printed in a wide range of publications.

Midterm and end of project survey  Mid term and end of project surveys were conducted to assess the progress of industry along the Aware, Accept, Act continuum. The results of these are presented below.

RESULTS

Results were collected from surveys conducted at three intervals throughout the project – baseline, mid term and at the end of the project. The baseline provided the level from which progress was measured.

Improvement along the continuum was measured according to the following domains of change:

- Not selling, promoting or transporting declared weeds or products containing declared weeds
- Preventing the spread of weeds resulting from the stakeholder’s operations
- Reporting new potential weed species
- Partnerships in collaborative weed species activities with other agencies/industry members.

Quantitative data collected as part of the evaluation component of the project identified that movement through the Aware, Accept, Act continuum was limited for the fodder industry. This is to be expected, as engagement with this group only began approximately 12 months before the final survey and concentrated on only two peak bodies. The industry was also impacted by drought and increased wildfire activity in Victoria resulting in increased demand for fodder which was already scarce, thereby potentially increasing market tolerance for weed contaminated product. However there was an increase in awareness of acceptance of their weed management responsibilities as shown in Table 1.

<table>
<thead>
<tr>
<th>Domain of change</th>
<th>% at end of project</th>
<th>% change from baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not selling/promoting or transporting weeds</td>
<td>81</td>
<td>4</td>
</tr>
<tr>
<td>Prevention of spread</td>
<td>61</td>
<td>23***</td>
</tr>
<tr>
<td>Reporting new weed</td>
<td>55</td>
<td>4</td>
</tr>
<tr>
<td>Partnerships</td>
<td>67</td>
<td>18</td>
</tr>
<tr>
<td>All areas combined</td>
<td>69</td>
<td>9</td>
</tr>
</tbody>
</table>

*** Statistically significant change from baseline to end of project P <0.001.

There was also a significant increase in the acceptance of the benefits of working in partnerships, however the action rating was lower indicating that this belief is not yet being put into practice (King 2007a).

When considering change within peak body organisations, the qualitative data are encouraging. There has been a demonstrated change in attitudes and the importance placed on weed related issues. It is expected that the change in priority given to the need to consider weed risks will filter through the industry over time.

There were many direct benefits gained from the fodder industry being involved in the grants program. There have also been many indirect benefits indicating a change in the attitudes of those involved with the TWoPL project, including:
Sixteenth Australian Weeds Conference

- Peak bodies requesting weed information to be presented at national annual conference
- Industry association members requesting further vehicle training sessions
- AACA requesting further funding to assist with the implementation of additional weed spread and vehicle hygiene training sessions
- Training participants requesting stickers to identify themselves as WeedStop accredited
- Peak bodies requesting advice regarding vendor declaration form for weeds
- Peak bodies attending DPI weed forums
- Contractors reporting weeds to DPI officers
- Contractors taking unidentified weeds into a DPI office for identification
- Peak bodies requesting that DPI weed information be made available on their websites for members
- Peak bodies including weed legislation information in biannual newsletters
- Peak bodies utilising contacts made through the TWoPL program
- Improved internal communication and network contacts
- Improved social/business networks
- Improved networks with other weed managers (State Government, Local Government, CMAs)
- Improved relationships between different organisations within the fodder industry.

DISCUSSION
Initial contact with some fodder groups identified a number of issues that needed to be addressed before any collaborative activities could be undertaken.

During initial dialogue with industry organisations, a cautious attitude was understandably evident. Only through open communication with stakeholders about aims and expectations and demonstrating commitment to action, could this be addressed.

At the initial engagement phase, the smaller groups that sit beneath AACA were at the point of disbanding due to lack of resources and enthusiasm. With the support and encouragement available through the TWoPL initiative partnership approach these groups were re-enthused and are now stronger functioning units.

WeedStop training sessions became a social event for participants, providing a much needed break for individuals from the drought-related stresses and opportunity for members to improve business and social networks.

A number of learnings came from the cooperation between DPI and the fodder industry, for example, recognition of the importance of ensuring messages considered the specific needs and priorities of the industry. Particular emphasis was placed on the costs weeds have for the industry and how implementing weed spread prevention practices could provide a marketing edge for contractors by enabling them to promote themselves as a professional, clean alternative. It was also necessary for the TWoPL initiative engagement schedule to be flexible enough to fit into industry time-frames. For example training sessions were scheduled according to weather conditions, harvesting, calving and other management activities.

Collaboration and partnerships between government, community and industry are essential to the success of weed management programs. The TWoPL initiative is now able to share its learnings on how engagement with stakeholders such as the fodder industry can bring about successful weed management outcomes.

ACKNOWLEDGMENTS
Mark Farrer, Beth Jones. Evaluation data is from the Tackling Weeds on Private Land initiative project evaluation report by Catriona King (2007b).

REFERENCES