Desktop Preparation of Pesticide Minor Use Permit Applications in Various Vegetable Crops 2007 - Growcom

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GROWCOM

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Know-how for Horticulture™

DESKTOP PREPARATION OF PESTICIDE MINOR USE PERMIT APPLICATIONS IN VARIOUS VEGETABLE CROPS 2007

FINAL REPORT

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Purpose of the project:
To obtain desk-top permit approvals for a range of pesticides in minor vegetable crops.

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- CONTENTS -

Page Number

1. MEDIA SUMMARY 2

2. TECHNICAL SUMMARY 3

3. INTRODUCTION 4

4. METHODOLOGY 5

5. RESULTS AND DISCUSSION 6

6. RECOMMENDATIONS 7

1. MEDIA SUMMARY

Many smaller vegetable industries struggle to gain access to suitable chemistry to assist them in their pest management needs. Factors such as pesticide resistance; emerging pests or diseases; new cropping systems; an increasing move towards integrated pest management; and the disinclination of many manufacturers to seek registration in small acre crops all contribute to industry's struggles.

To try and alleviate the situation, Horticulture Australia Ltd (HAL) and the Australian Vegetable and Potato growers Federation (AUSVEG) requested assistance in the preparation of pesticide minor use applications in a range of vegetable crops to submit to the Australian Pesticides and Veterinary Medicines Authority (APVMA) via project VG06160. The key outcome of this project is the gaining approval from the APVMA for the use of listed pesticides identified and prioritised through grower wish lists, under the minor use permits scheme.

To date all applications have been submitted to the APVMA; some have already resulted in approvals and the issuance of a permit allowing usage for a specified duration and the remainder are still awaiting assessment.

2. TECHNICAL SUMMARY

The Australian Pesticides and Veterinary Medicines Authority (APVMA) are responsible for the approval and registration of all agro-chemical products that can be sold or used in Australia. The APVMA's Minor Use Permits System allows approved uses of agro-chemicals for appropriately qualifying situations.

Growcom has undertaken the task of preparing and submitting ten permit applications covering eleven identified crop / pest situations as stipulated by Horticulture Australia Ltd (HAL) via project VG06160. These applications included insect, disease and weed pests of crops such as: alliums (other than onions) capsicums, celeriac, chicory, chillies, cucumbers, endive, lettuce (greenhouse and hydroponic production only), paprika, parsnip, radicchio, snow peas and sugar snap peas.

Table 1: *Crop/pest/ chemical situations submitted as minor use permit applications by Growcom.*

Item Code	Crop	Target pest	Product Name	Status
HAL1459	Cucumber, capsicum, lettuce (GH & hydro)	whiteflies	Eco-oil	3/9/07 - permit application received & acknowledged by APVMA ~o~ 08/02/08 – permit # **PER10311** issued
AVG224	Snow peas & Sugar snap peas	Leaf and pod spots and Downy mildew	All formulations with Various copper actives	14/4/08 - permit application received & acknowledged by APVMA
HAL1179	Capsicum	Broadleaf weeds and grasses	Basta	3/9/07 - permit application received and acknowledged by APVMA
HAL1178	Snow peas and sugar snap peas	Broadleaf weeds and grasses	Basta	3/9/07 - permit application received and acknowledged by APVMA
HAL1546	Celeriac	Weeds as per the label	Linuron	15/11/07 - permit application received and acknowledged by APVMA ~o~ 24/04/08 – permit # **PER10468** issued
AVG946	Capsicum, chillies & paprika (field)	Downy mildew	Ridomil MZ	14/4/08 - permit application received & acknowledged by APVMA
AVG853	Parsnip	Grass and broadleaf weeds	All formulations with Pendimethalin actives	14/4/08 - permit application received & acknowledged by APVMA
HAL1547	Celeriac	weeds as per the label	Gesagard	15/11/07 - permit application received and acknowledged by APVMA ~o~ 21/04/08 – permit # **PER10469** issued

Item Code	Crop	Target pest	Product Name	Status
HAL1630	Chicory, endive, radicchio	Lettuce Aphid	Chess	14/4/08 - permit application received & acknowledged by APVMA
HAL1533	Snow peas & sugar snap peas	Botrytis & Blossom blight	Scala	3/3/08 - permit application received & acknowledged by APVMA
HAL1266	Alliums (other than onions)	White Rot (Sclerotium cepivorum)	Bayfidan	14/4/08 - permit application received & acknowledged by APVMA

Shading denotes situations that were combined and submitted under the one permit application.

Each application was prepared in consultation with a key chemical manufacturer. Representatives from the chemical manufacturers provided advice on the use patterns and where possible, supporting data for the requests.

This project prepared and submitted the above-mentioned minor use applications to the APVMA.

3. INTRODUCTION

Before a pesticide can be used in Australia it must be approved by the APVMA. In order to gain approval it must satisfy the APVMA criteria in areas such as efficacy, consumer safety, environmental safety and occupational health and safety. For a manufacturer to register a product they must submit a comprehensive data package to the APVAM. The cost of generating and collating this data is high. As a result, many small horticultural crops that do not generate large volumes of product sales are deemed too minor for the manufacturer to invest their registration dollars for suitable product uses in those crops. Thus horticulture crop growers are often at risk of facing considerable crop losses from pests, weeds and diseases for which they have no pest management options.

Other factors also impact upon the rising need for minor use permits. These include loss of access to older chemistry due to chemical reviews and company portfolio rationalisation, pesticide resistance, emerging pests or diseases, new cropping systems, and an increasing move towards integrated pest management.

The APVMA has a regulatory mechanism – a Minor Use Permit Scheme – by which smaller industries are able to seek access to much needed pest management tools. This permit scheme adds some flexibility to the approval process and provides a mechanism whereby minor uses can be granted under guide lined circumstances. The outcome of this scheme is usually the issuing of a time-limited permit that enables growers to use a product for the purpose stipulated in the permit.

To obtain such as permit, applications must be lodged with and approved by the APVMA. These applications must outline the proposed use and provide a justification and supporting data for the request.
In project VG06160 data for 11 proposed uses was sought, collated and submitted to the APVMA.

4. METHODOLOGY

Before issuing a minor use permit the APVMA must undertake a risk assessment to be satisfied that the proposed use is efficacious, safe to users, the environment and will not result in violative residues. The eleven permit requests were all deemed to be a 'desktop' application, which means that no residue trails were required to provide the APVMA with assessment data. Justification for each application was based on existing data for similar crop uses.

To gather this information the following strategies were employed:

- Data mining – searches were conducted in the public domain, predominantly the Internet, and
- Manufacturer linkages – contact was made with chemical manufacturers to source necessary data held by relevant chemical companies

Permit applications were built with the information gathered from these activities. The justifications were based on knowledge gained about the crop itself, the pest as an issue for industry, and overseas and Australian labels and maximum residue limits (MRLs). Once the available information was collected and collated a permit application was generated and submitted.

The steps involved are outlined below in more detail.

Step 1. The list of requested permit applications was assessed for possible combinations where situations required the same active ingredient (only one such combination was required)

Step 2. Public domain searches were conducted to provide the APVMA with growing information on the crop plus its edible portion(s). This also included information on crop marketing and whether the crop is exported.

Step 3. Public domain searches were conducted to provide the APVMA with information on the pest and how it affects the crop i.e. the damage caused and areas of plant affected. Wherever possible, information was also provided on the cost of crop losses to growers.

Step 4. Public domain searches were conducted to provide the APVMA with information on relevant MRLs (both Australian and international) and basic chemical properties such as mode of action and resistance management classification for the crop in question or crops of similar CODEX groupings. The QDPI&F information CD, Infopest was also consulted for this task.

Step 5. Use patterns were established using those already registered for crops of a similar CODEX grouping. Consultation with chemical registrants assisted to ensure that the chosen use pattern would be suitable.

Step 6. Consultation with chemical registrants was used to source all relevant Australian and overseas data to support the permit justification to provide to the APVMA.

5. RESULTS & DISCUSSION

Outlined in Table 2 are the permit approvals granted by the APVMA to date:

Table 2. Permits obtained as part of project

Item code	Crop	Problem	Active Ingredient	Status
HAL1546	Celeriac	Weeds	Linuron	permit 10468 issued 24/4/2008
HAL1547	Celeriac	Weeds	Prometryn	permit 10469 issued 21/4/2008
HAL1459	Capsicums, cucumbers & lettuce	Whitefly	Botanical oil	permit 10311 issued 8/2/2008

Listed in Table 3 are the permit applications still with the APVMA. All permits have been submitted to the APVMA for assessment and are processing though their system.

Table 3. Permit applications for which approvals are pending

Item code	Crop	Problem	Active Ingredient	Status (comments by APVMA)
AVG853	Parsnip	Grasses & broadleaf weeds	Pendimethalin	Comments sought from States and Manufacturer. Reply due 22 June 08
AVG224	Snow peas & sugar snap peas	Downy mildew, leaf & pod spots	Copper	Comments sought from States and Manufacturer. Residue report due 22 August 08.
HAL1266	Alliums (other than onions)	White rot	Triadimenol	DEWHA & Residues screening. Letter sent 28 April 08.
AVG946	Capsicums, chillies, paprika	Downy mildew	Metalaxyl-M + mancozeb	Comments sought from States, Manufacturer +Residues. Reply due 22 June 08 from former and 12 August 08 from latter.
HAL1630	Chicory, endive, radicchio	lettuce aphid	Pymetrozine	Screening – clock stopped.
HAL1533	Snow peas & sugar snap peas	Botrytis	Pyrimethanil	Comments sought from States, Manufacturers + Residues. Reply due 19 May 08 for former and 19 July 08 for latter.
HAL1179 HAL1178	Capsicums, Snow peas & sugar snap peas	Broadleaf weeds and grasses	Glufosinate-amonium	Clock stopped. Letter sent to manufacturer. Reply due 27 May 08.

The APVMA requested further information on the combined permit applications for capsicums and snow peas / sugar snap peas (HAL1179 & HAL1178). The issue raised was one of crop tolerance, particularly for peas. Approaches have been made to the chemical manufacturer by both Growcom and the APVMA and the matter is still being resolved.

All other applications appear to be progressing except for HAL1630, which is still at screening with the APMVA.

6. RECOMMENDATIONS

The major outcome of this project is that pesticides that could not be legally used by vegetable growers will now be available, thus providing growers with a broader range of options in the control of diseases and insect pests from which their crops suffer.

This project has been part of a larger programme of research that has been conducted over the past few years. Although the outcomes of this project have been met there is an ongoing need for growers to have access to newer and better pesticides and so similar projects should be planned and conducted in the future.