

# **Desktop Preparation of Pesticide Minor-Use Vegetable Permit Applications**

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Project Number: VG05099

## **VG05099**

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*HAL Project Number: VG05099*

**PREPARATION OF PESTICIDE MINOR-USE  
APPLICATIONS IN VARIOUS VEGETABLE CROPS.**

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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## **MEDIA SUMMARY**

A lack of available pest and disease management tools can hamper the development and productivity of many smaller vegetable industries. This lack can be caused by a range of 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 registrations in small acreage crops.

To try and alleviate the situation, Horticulture Australia Ltd (HAL) and the Australian Vegetable and Potato Growers Federation (AUSVEG), via Project VG05099, required the preparation of minor-use permit applications, covering a range of vegetables crops to be prepared and submitted to the Australian Pesticides and Veterinary Medicines Authority (APVMA). The project's goal was to obtain regulatory approvals for 23 pesticide uses, previously identified as necessary through HAL project AH04009. The project team researched, collated and presented the necessary information to the APVMA in support of these permit applications.

To date approvals have been obtained for brassica leafy vegetables, capsicums and peas. As all applications were submitted prior to the end of February 2007 it is anticipated that the remaining approvals will be gained by the end of August 2007.

## **TECHNICAL SUMMARY**

The issue of chemical access can be problematic for many small or emerging vegetable industries. This lack of pesticide access can adversely affect crop productivity and farmer profitability. This has arisen from a combination of: the introduction of new pests and diseases; pesticide resistance; a move towards integrated pest management; the disinclination of manufacturers to register pesticides in for minor crops; and regulatory pressures diminishing available pesticide options.

To try and achieve a better outcome, Horticulture Australia Ltd (HAL) and the Australian Vegetable and Potato Growers Federation (AUSVEG) initiated project AH04009. The aim of the project was to identify, and gain regulatory approval for pesticide uses needed by a range of horticultural crops. An output of this project was a desktop listing of requested uses for minor vegetable crops. This list of uses was pursued via Project VG05099 with 23 uses to be sought within a 12 month timeframe.

This project prepared and submitted minor-use applications for these pesticides to the Australian Pesticides and Veterinary Medicines Authority (APVMA). To date permits have been issued for four of the requested 23 uses.

The APVMA's legislation dictates that, in order to grant a minor use permit it must be satisfied, that the proposed use meets its safety and efficacy statutory requirements. During this project the APVMA repeatedly raised questions over glasshouse uses with respect to pesticide residues, crop safety and operator exposure. Therefore to ensure fewer difficulties over glasshouse uses it is suggested that industry and the APVMA liaise to develop a clearer definition of data requirements for glasshouse uses.

## **1.0 INTRODUCTION**

### **1.1 CURRENT SITUATION**

Before a pesticide can be used in Australia it must be approved by the Australian Pesticides and Veterinary Medicines Authority (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 are required to submit a comprehensive data package to the APVMA. The costs for generating and collating such data are high and unfortunately many horticultural crops are too small individually for agrochemical manufacturers to consider expending the cost associated with registering their products for use. As a result, horticulturalists are often placed in situations where they risk severe crop losses from pests, weeds and diseases through lack of access to suitable pest management options.

The need for minor-uses has also increased due to a loss of access to older pesticides as a result of chemical reviews and company product portfolio rationalisation. Further the introduction of Quality Assurance programs dealing with the whole production process including pesticide use, demand that growers only exercise Good Agricultural Practices, i.e., practises are regulatory compliant. In addition, horticultural produce must meet minimum standards relating to quality, safety and consumer expectation emphasising the importance of the farmer ensuring that any pesticides applied are done so in accordance with relevant regulations.

The APVMA has a regulatory mechanism, i.e., a Minor Use Permit Scheme, by which smaller industries are able to seek access to much needed pesticide tools. This permit scheme adds some flexibility to the approval process and provides a mechanism whereby minor-uses, following a targeted level of risk assessment, concomitant to the importance of the crop and pesticide use in that crop, can be granted approval. The outcome of which is usually the issuing a time-limited permit enabling growers to use a product for the purpose outlined in the permit.

To obtain such minor-use approvals permit applications must be lodged with, and approved by the APVMA. These applications must not only outline the proposed use but also provide a justification and data supporting the requested use. In project VG05099 data for the 23 proposed uses was sought, collated and submitted to the APVMA.

## **2.0 METHODOLOGY**

Before issuing a minor use permit the APVMA must undertake a risk assessment to be satisfied that a proposed use is efficacious, safe to users, the environment and will not result in violative residues. In preparing the permit applications the project team attempted to collate and submit information to address these issues so as to facilitate the completion of the required risk assessment and the granting of a permit.

To gather this information the project team undertook a number of data gathering strategies. These strategies included:

- Data mining – The project team sought to identify and utilize relevant data existing within the public domain and researcher community, i.e., from literature searchers and previously funded HAL projects.
- Industry linkages – The project team used existing linkages with existing HAL projects such as AH04009, government organisations, peak industry bodies, and national and state grower associations.
- Manufacturer linkages – The project team used close linkages with chemical manufacturers to source necessary data held by relevant chemical companies.

The data mining involved ‘building’ the permit applications and justifications via a series of iterative steps during the course of the project. These steps involved consultation with various industry participants and covered such activities as supporting data collection, i.e., overseas labels, confirmation of pest status via liaison with local researchers and seeking clarification and feedback from industry on specific requests. 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 project team discussed data requirements and application structure with the APVMA. An outcome of these discussions was the development of a specific format for application justifications, based on the format of the Registration Overview required by the APVMA for chemical registrations.

**Step 2.** Discussions were then held with APVMA to determine the most efficient method for dealing with the requests. As a consequence of these discussions it was agreed that permit applications would be consolidated on a pesticide by pesticide basis.

**Step 3.** Supporting data and or additional information, needed to comply with APVMA requirements, was then sought. The team then liaised with industry representatives and chemical manufacturers where uncertainty over a requested use existed.

**Step 4.** Data was the collated and permit applications prepared and submitted.

Through the above process liaison was maintained with members of the Project Reference Group, i.e., Minor Use Co-ordinator and HAL Plant Health Portfolio Manager.

### 3.0 RESULTS

#### 3.1 PERMIT APPROVALS

Outlined in Table 1 are the permit approvals granted by the APVMA to date. These approvals cover three pesticides and a number of crops.

Table 1. Permits obtained as part of the project.

Item Code	Crop	Problem	Product or similar	Active ingredient	Status
HAL1373	Brassica leafy vegetables	Alternaria	Amistar	azoxystrobin	Submitted. PER9633 issued
HAL1176	Capsicums	Broadleaf weeds and grasses	Glyphosate	glyphosate	PER9632
HAL1177	Snow peas and sugar snap peas	Broadleaf weeds and grasses	Glyphosate	glyphosate	PER9632
AVG672	Capsicums, chillies & paprika	Sclerotinia rot	Sumisclex	procymidone	PER9501 issued. Application part of consolidated permit application made under AH04009.

### 3.2 PERMIT APPLICATIONS PENDING

Listed in Table 2 are the permit applications still with the APVMA.

Table 2. Permit applications for which approvals are pending.

Item Code	Crop	Problem	Product or similar	Active ingredient	Status
HAL1417	Celery	Sclerotinia	Filan	boscalid	Submitted
HAL1387	Cucumber (greenhouse & field)	Anthracnose, Downy mildew, Gummy stem blight & Botrytis	Copper	copper as hydroxide, oxide, oxychloride, sulfate	Submitted
HAL1388	Cucumber, capsicum, lettuce (field & greenhouse)	Botrytis & Rhizoctonia	Switch	cyprodinil + fludioxonil	Application submitted for greenhouse capsicums, as capsicums a major crop.
HAL1258	Cucumber, capsicums, tomatoes (greenhouse)	Two spotted mite, tomato russet mite & broad mite	Calibre	hexythiazox	Submitted
AVG523	Leeks	downy mildew & purple blotch	Ridomil Gold Plus	metalaxyl-M + copper hydroxide	Submitted

Item Code	Crop	Problem	Product or similar	Active ingredient	Status
HAL1312	Cucumber (field)	Downy mildew	Ridomil Gold Plus	metalaxyl-M + copper hydroxide	Submitted
AVG366	Radish, swede, turnip	Alternaria, Cercospora & White Blister	Ridomil Gold Plus	metalaxyl-M + copper hydroxide	Submitted
AVG725	Spring onions & shallots	annual broadleaf & grass weeds	Tribunil	methabenzthiazuron	Submitted
HAL1418	Rhubarb	Downy mildew & Phytophthora	Agri-fos	phosphorous acid	Submitted
HAL1378	Brassica leafy vege, herbs, lettuce & silverbeet	Powdery mildew	Ecocarb	potassium bicarbonate	Submitted. Subject to ongoing discussions with the APVMA regarding crop safety. Supporting data

Item Code	Crop	Problem	Product or similar	Active ingredient	Status
HAL1381	Cucumbers, tomatoes & capsicums (greenhouse)	Powdery mildew	Ecocarb	potassium bicarbonate	sourced from manufacturer and provided to the APVMA.
HAL1210	Broccoli, Brussels sprout, Cauliflower, BLV	White Blister (Albugo candida)	Cabrio	pyraclostrobin	Permit modified to cover Brassica leafy vegetables as manufacturer could not provide data to support inclusion of broccoli, cauliflower and Brussels sprouts, i.e., major crops
AVG226	Capsicum, lettuce, tomato (GH & hydroponics)	Botrytis	Scala	pyrimethanil	Submitted. Capsicums replaced by greenhouse capsicums, as capsicums a major crop.
HAL1375	Brassicas	Silverleaf Whitefly	Admiral	pyriproxyfen	Submitted

Item Code	Crop	Problem	Product or similar	Active ingredient	Status
HAL1466	Capsicum (GH & hydropon)	Whiteflies, fungus gnats, shore flies	Admiral	pyriproxyfen	Submitted
HAL1416	Beans (green & processing)	Silverleaf Whitefly	Admiral	pyriproxyfen	Submitted.
HAL1261	Cucumber (greenhouse & hydroponics)	Gummy Stem, Mildews, Botrytis, moulds, anthracnose, black spot, melanose, blights	Euparen Multi	tolyfluanid	Submitted.
HAL1392	Cucumber, capsicum (greenhouse)	Powdery mildew	Flint	trifloxystrobin	Submitted. Capsicums replaced by greenhouse capsicums, as capsicums a major crop.

### **3.3 PERMIT APPLICATIONS ABANDONED**

No permit application was lodged for the use request AVG447, i.e., methomyl for the control of thrips, *Helicoverpa* spp., and Western flower thrips in silverbeet. This request was not progressed because the use of the compound on leafy vegetables was suspended by the APVMA and is to be the subject of a review.

### **4.0 DISCUSSION**

The information required to support a desk-top permit application varied considerably between applications. Following submission of the permit applications queries were received regarding various aspects of the requested use. To date these have been dealt with successfully by providing responses to the APVMA through the Minor Use Co-ordinator.

In some cases the questions raised have related to the use of compounds in covered crop situations, i.e., in glasshouses. The questions covered a range of issues but in the main focussed on crop safety, occupational health and resistance management. As protected cropping is becoming an area of increased activity with respect to gaining access to pesticides, it is believed that AUSVEG and representatives of the protected cropping industry should provide industry profiles covering aspect such as acreage and work practices.

It is also proposed that a check-list be developed to cover the key areas of regulatory concern, as highlighted in VG04073, e.g., company support and no residues concerns, prior to tender, i.e., to ensure that desk-top requests are in fact desk-top requests and to improve the likelihood of applications being successful.

## **5.0 RECOMMENDATIONS**

As part of future projects it is recommended that:

- Ausveg develop and formalise a policy on reduced risk chemistry.
- that a checklist be developed covering the major areas of APVMA concern and that this be completed and provided prior to desk-top projects going to tender,
- that the checklist contain the following,
  - specific information on APVMA determinations regarding residues be provided,
  - specific information on the position of manufacturers be provided and
  - specific information from researchers confirming the existence of problem for which a minor use is requested.