

**Coordination of minor
use permits for
horticulture**

Peter Dal Santo
AgAware Consulting Pty Ltd

Project Number: AH04009

AH04009

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Know-how for Horticulture™



Coordination of minor-use permits for horticulture

Horticulture Australia Ltd

Project No: AH04009

AgAware Consulting

September 2007

Horticulture Australia project no:

AH04009

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Purpose of the report:

This project was funded by Horticulture Australia Ltd to coordinate and consolidate the minor-use permit for all of horticulture. The project involved liaising with horticultural industry bodies, researchers and advisors to determine their pesticide requirements and coordinate any data that needed to be generated to ensure maximum efficiency. Residue data generation was contracted with qualified field researchers and analytical laboratories to ensure that they completed the designated task allotted to them with respect to data generation. Minor-use permit applications were written and submitted to the Australian Pesticides & Veterinary Medicines Authority for permit approval.

This report summaries the processes undertaken with industry and the applications submitted.

Funding sources:

- Horticulture Australia Ltd
- AUSVEG

Date of report:

30 September 2007

Disclaimer:

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Media Summary

Australia horticulture is often restricted in its production due to the limitations imposed by diseases, insects and weeds. Legal access to appropriate pesticides is limited in some crops and non-existent in others.

The project 'AH04009 – Coordination of minor-use permits for horticulture' was conducted from October 2004 to June 2007 to assist horticultural industries gain access to the pesticides necessary for sustainable production by:

- Critically assessing the pesticide uses and requirements of horticultural industries
- Developing a systematic approach to facilitate access to minor use permits across all horticulture industries
- Managing research projects to gather data to support permit requests
- Receive quicker permit approvals for horticultural industries through the APVMA
- Conduct a Strategic Agrichemical Review Process to plan for future pesticide requirements

The project assisted horticultural industries to access pesticides necessary for sustainable production. This involved extensive consultation with stakeholders and as a result links have been strengthened between growers, industry associations, consultants, the retail network, agrichemical manufacturers and the APVMA.

Project selection, data generation and the permit application process has been reviewed and refined to improve the information supplied to APVMA to ensure the evaluation process is as efficient as possible. Where possible, existing permits for the same pesticide have been consolidated across all horticultural industries to further improve the permit process.

Many horticultural industries have been involved in the Strategic Agrichemical Review Process to analyse their current and future pesticide requirements. SARP critically assesses current disease, insect and weed problems against existing pesticides. Any 'gaps' in the current control options were identified, along with any new potential plant pests. The industry, along with key experts worked on developing solutions to these 'pest management gaps', selecting appropriate pesticides. SARP allowed for an improved priority setting process for minor use requests and therefore investments by each industry. SARP improved the focus and discussions with chemical companies so investments can work in partnership, improving returns for both parties.

Every major horticultural industry has benefited from the outcomes of this project. The mix of minor-use permits received during this project was:

Vegetables	85	59%
Fruit crops	23	16%
Nuts	17	12%
Berries	8	5%
Nursery / flowers	7	5%
Others	4	3*

Although the project is now complete, discussions with agrochemical companies and the APVMA are continuing, in order to transfer as many current minor-use permits as possible to registered use on pesticide labels.

The project was reviewed by Scholefield Robinson Horticultural Services in April 2007 to determine the value to horticulture. SRHS recommended that the project was successful and should continue.

The recommendations from this review have been included in the follow-on project, 'MT07029 - Managing pesticide access in horticulture'.

Introduction

In October 2005, AgAware Consulting Pty Ltd was awarded a project by Horticulture Australia Ltd (HAL) to coordinate the pesticide minor-use program for all horticultural industries associated with HAL, AH04009 – Coordination of minor-use permits for horticulture. This project was an expansion of the ‘vegetable only’ project, ‘VG03108 - Improve the access of pesticides for the vegetable industry via minor-use permits’ that operated from January to September 2004.

Growers of horticultural crops frequently suffer from a lack of legal access to crop protection products (pesticides). The problem is that whilst their crops are valuable, they are often too small individually for agrichemical companies to bear the high cost of registering products for use on them. It is also a problem in larger crops where the problem is only localised or sporadic in nature.

Growers are increasingly trapped in a situation where they face severe losses from diseases, insects and weeds (plant pests) if they do nothing to protect their crops, or face penalties if they use a product that is not registered.

All horticultural industries are very aware of the possible consequences that can occur from the use of unregistered or non-permitted pesticides. These can include;

- Produce with unauthorised pesticide residues present
- Rejection of produce from local markets
- Temporary exclusion from market access
- Rejection of produce from export markets
- Jeopardising of export trading arrangements
- Fines and penalties

Pesticides have always been an important tool in many horticultural industries. Access to the most suitable pesticide is essential to ensure produce of the highest quality, free of unacceptable pesticide residues.

During the life of the project, a new process was developed to assess the pesticide needs of each horticultural industry and determine any future pesticide requirements - Strategic Agrochemical Review Process (SARP).

This project aimed to assist growers’ in their plant pest management options.

Project aims

The aims of the project were to assist all horticulture industries and growers to:

- Protect their crops from current diseases, insects and weeds and plan for any future plant pests.
- Solve crop protection problems by providing access to pesticides that are currently not legally available to them
- Manage pesticide resistance and sustainable production
- Meet legal requirements regarding pesticide use
- Ensure produce does not contain unacceptable pesticide residues
- Meet the requirements of quality assurance systems for domestic and export markets

For all pesticides selected, the project undertook the assessment of:

- Chemical suitability
- Resistance management
- IPM suitability
- Residue compliance (domestically and exports)

Wherever possible, all pesticides selected for pest management strategies had to address and satisfy this criteria.

Methodology

Given the contacts and processes already established within the vegetable industry via 'VG03108 - Improve the access of pesticides for the vegetable industry via minor-use permits', the first year of the project was mostly spent creating networks within the non-vegetable industries.

These industries were:

- Berries (blueberry, Ribes, Rubus, strawberry)
- Citrus
- Dried fruit
- Grape (table)
- Herbs
- Melons
- Mushrooms
- Nurseries (production) and ornamentals (cut flowers)
- Pome fruit (apple, nashi, pear)
- Poppy
- Pyrethrum
- Summer fruit (stone fruit, cherry)
- Spices (ginger)
- Tobacco
- Tomato (fresh, processing)
- Tree nuts (ANIC, almond, chestnut, hazelnut, macadamia, pecan, pistachio, walnut)
- Tropical and sub-tropical fruit (edible peel - fig, olive, tamarillo)
- Tropical and sub-tropical fruit (inedible peel - avocado, banana, custard apple, kiwi fruit, lychee, mango, papaya, persimmon, rambutan)
- Turf

Contacts were established with:

- Agrichemical manufacturers (horticulture, registration and technical managers)
- Key retailers (sales managers and agronomists/horticulturalists)
- Horticultural associations
- Horticultural consultants and researchers
- State Departments of Primary Industries (researchers and extension)

The project was promoted by:

- Articles for industry and HAL publications
- Emails
- Letters
- Presentation at meetings
- Teleconferences

Strategic Agrochemical Review Process

It became obvious very early during the life of the project that the current method of providing pesticide access to each horticultural industry was not very efficient as it was always reacting to a need that had already occurred. See Figure 1 for the flow chart for how the process originally worked.

AgAware in association with Horticulture Australia Ltd and many horticultural industries developed a new approach to address future pesticide requirements in horticulture - a Strategic Agrochemical Review Process (SARP). The new, more focussed strategy greatly assisted in the negotiations with agrichemical manufacturers to ultimately achieve an increase in sustainable registrations for a wider range of commodities as well as enhancing the minor-use permit system with APVMA. As a result there will be more timely generation of registrations and permits for clearly identified crop protection needs, many of which will also assist the expansion of effective IPM strategies.

SARP has a two stage process that included key growers, industry representatives, government agencies, retail horticulturalists and consultants.

1. The needs identification process involves a workshop with key growers and stakeholders from each industry to critically review and assess:

- The current list of diseases, insects and weed problems for each crop.
- The current range of pesticides legally available to combat these challenges
- Any potential new risks to the industry

This assessment provided a list of key diseases, insects and weeds for each crop that are of major concern to industry. Against these threats it identified the pesticides, effectiveness, pesticide group, withholding period, registered/permitted uses and overall suitability (IPM, residues, efficacy, trade and environment) for the task. If any pesticides were unsuitable for the designated task, possible alternative pesticides and their IPM suitability were nominated. This provided industry and the APVMA with a clear picture of gaps in the existing pest control options, and noted the potential to address these gaps with effective IPM compatible pesticides.

2. The process involves addressing the identified gaps (where acceptable pesticides were not legally available), by determining new pesticide control options using:

- Critical selection criteria for potential alternatives and/or new pesticides
- Domestic and overseas information and resources that provide options and assist decision making
- Manufacturer support

Overseas information included residue work, technical strategies in pesticide use, information on field efficacy and strategic fit within crop protection programs that could be transferred and modified to suit Australian conditions and requirements. This comprehensive approach led to substantial financial savings for the Australian industry, with improved availability and technical information for effective, relevant pesticides.

The final list of pesticide solutions for each plant pest problem in each crop will have the benefit of:

- IPM compatibility, wherever possible
- Improved scope for resistance management
- Sound biological profile
- Residue and trade acceptance domestically and export

At the end of the process, the analysis provided each industry with sound pesticide options for the future that the industry can pursue for registration with the manufacturer, or minor-use permits with APVMA.

See Figure 2 for the SARP flow chart.

Outcomes

Pesticide requests

From the association with the various horticultural industries, many requests were received to pursue pesticides for minor-use permits. Before any action is undertaken, all requests are recorded on the HAL Minor-use database maintained by AgAware. See Figure 3.

Figure 3: Database –wishlist entry

The screenshot shows a Microsoft Access database window titled "Microsoft Access - [Wishlist Search]". The interface includes a menu bar (File, Edit, View, Insert, Format, Records, Tools, Window, Help) and a toolbar with various icons. Below the toolbar is a ribbon with buttons for "Add Record", "Contact Details", "Add New Contact", "Show Project", "Client Group", "Allocate Item Code", and "Make project". The main form displays the following data for item code "AVG990":

- Is Project: Desktop?: Contact: Ulloa Date started: 21/10/2002
- Crop: Lettuce (head) Project Group: Spring 2002
- Problem: Lettuce Aphids Product: Confidor Company: Bayer CropScience
- Priority: 1 States: All States Active Constituent: imidacloprid
- Status: Completed Formulation: 200 g/L
- No of Trials Reqd: 4 No of Samples: 8 Application rate: 35-55 mL/1000 plugs
- Est Trial Costs: \$10,750.00 Est Lab Costs: \$1,925.00 Application Timing: seedling soil drench
- Current approved uses: CPA trials in progress for foliar application AVG60. Rego in roses as soil drench for aphids. Confidor rego in brassicas, caps, cucurbits, eggplant, pots & toms for aphids.
- Crop residue details: MRL (brassicacs) - 0.5, (herbs) - T5, WHP - n/a
- Availability of other products: Requested by NZ (as a new pest) and Ausveg (as a precaution for the future).
- Pest information: Acreage - 5,700 ha
- Agchem Company Response: Company: [dropdown] Company Letter Sent: Company OK: Support Level: [dropdown]
- NRA Response: NRA evaluation category: 5 NRA Letter Sent: NRA Reply: Reply date: [text box]
- Data Requirements: [text box]

Every 6-12 months (depending on the industry) a list of proposed studies are circulated to these industries to determine if:

- The study is relevant to the industry (prioritise)
- If so, is it applicable to all states or just a state/region
- Possible funds available to conduct the required work (data generation)

The determination for a study to proceed is the responsibility of each individual industry. AgAware assists where it is able with technical information. In most cases, each industry seeks the support of experts in their assessment processes.

Once the priorities and funds were approved, then the study was initiated.

This information is transferred to the projects database which maintains a running diary of all aspects of the study. See Figure 4.

Figure 4: Database – project entry

Microsoft Access - [Project details and status]

File Edit View Insert Format Records Tools Window Help

Show Wishlist Entry Show Renewals Due < 12 months Search Trial Status Contact Details Add New Contact Produce Master Schedule

Item Code: **AVG60** Desktop Project group: Spring 2002 Priority: 1

Crop: Lettuce (all types), chicory, endiv Target: Lettuce Aphids NRA Ref: 7416 NRA evaluation category: 5

Contact ID: Ulloa Company: Bayer Chemical: imidacloprid

Status: Completed Is GLP Product Name: Confidor

Start date: 6/11/2002 Done by: Formulation: 200 g/L

Submission date NRA: 4/02/2006 Application Method: seedling tray drench

Approval Date: 24/03/2006 Application Rate: 35-52.5 mL/1000 plants

PERMIT NUMBER: 7416 No and timing of Applications: seedling soil drench

Expiry Date: 30/06/2007

States: All States

Funds source: VG02005 No of Trials: 4 No of Samples: 8 WHP: nil

Update funding table Trial Costs: \$10,750.00 Lab Costs: \$1,925.00 Target MRL: 5

Current approved uses: CPA trials in progress for foliar application AVG60. Rego in roses as soil drench for aphids. Confidor rego in brassicas, caps, cucurbits, eggplant, pots & toms for aphids.

Crop residue details: MRL (brassicas) - 0.5, (herbs) - T5, WHP - n/a

Availability of other products: Requested by NZ (as a new pest) and Ausveg (as a precaution for the future).

Pest information: Acreage - 5,700 ha

Date	Status
3/11/2002	Trials commissioned
3/02/2004	Received call from Mike Norman DRIWE & Fiona Macbeth DAFF - outbreak of lettuce aphid
4/02/2004	spoke to Norden and David Gregor Bayer - NZ info - prepared desktop emergency use permit
4/02/2004	PER7416 granted 24/2/04 to 30/6/05 for Tas only
2/03/2004	asked APVMA to change permit from head lettuce only to all lettuce

Record: 1 of 20

Tenders are prepared in association with HAL for contractors qualified to conduct the necessary work to a standard suitable to APVMA for a minor-use permit or registration.

HAL uses certain selection criteria to allocate all work. Contracts have a prescribed completion date to ensure access to permits or registration is as timely as possible.

Minor-use permit process – data generation

All studies commissioned during this project had the permit application process as part of the data generation process and was the responsibility of the contractors.

The role of the project process was to:

- Ensure the field researchers and analytical laboratories completed all studies according to the conditions initially set down in the contracts.
- Monitor progress of all permit applications and keep the horticultural industry informed.
- Provide APVMA with additional information required in relation to any permit application.
- Notify all horticultural industries by email and handouts that permits had been issued.
- Maintain the HAL database on each study.

Minor-use permit process – desktop

Not all studies prioritised by the industries required data to be generated to support the permit application. In these cases the permit application process was commissioned to appropriately

qualified contractors.

The role of the project was to:

- Ensure that the contractor completed all studies according to the conditions initially set down in the contracts.
- Monitor progress of all permit applications and keep the horticultural industry informed.
- Provide APVMA with any additional information required in relation to any permit application.
- Notify all horticultural industries by email and handouts that permits had been issued.
- Maintain the HAL database on each study.

Minor-use permit process – emergency and urgent

The project was responsible for the preparation and submission of all emergency and urgent permit applications as deemed appropriate by each industry.

This was completed in a timely and efficient manner to ensure that the pesticide was accessed as soon as practicable.

All emergency and urgent permits submitted and granted are listed in Table 1.

Minor-use permit process – renewals and consolidation

Early in the project, a process was developed to consolidate as many horticultural permits as possible. This process was developed in association with APVMA for efficiency benefits for all concerned.

The consolidated permits have several advantages;

- Makes it easier for APVMA to assess one active ingredient once, rather than multiple times
- Sharing of the permit application fee (\$320) with all crops involved
- Easier to approach manufacturers to add the uses to their labels
- Easier to manage any issues that arise with the use of any pesticide, especially resistance management issues
- Any future data generation required will be coordinated and managed by the project
- Permits will be renewed automatically after approval by each industry

The aim was to have one consolidated permit per active ingredient with multiple crops, rather than one product/one crop permits.

The Pesticides Minor Use Coordinator (PMUC) actively worked with most horticultural industries to transfer their permits to AgAware Consulting P/L on behalf of Horticulture Australia.

Permit holder role

The permit consolidation process created many new permits for which the only logical permit holder was HAL, as many different horticultural crops were included. HAL had some concerns with their responsibility, liabilities and some of the wording used in the permits. AgAware has been working with APVMA and HAL to ensure some permit statements are clarified for users.

To alleviate this short term problem, all current permits that are issued or renewed have AgAware Consulting P/L acting on behalf of HAL, as the permit holder. This is only a temporary situation, until the permit holder role is resolved.

Unfortunately, at the time of preparing this Final Report, the liability issue of the permit holder has not been finalised. This is on-going with APVMA as legal issues need to be addressed.

Industry permits that have been transferred to HAL/AgAware for consolidation have come from:

- Agronico – onions
- Almonds
- AUSVEG
- Bananas
- Blueberries
- Cherries (some only)
- Chestnuts
- Hazelnuts
- Macadamias
- Northern Territory Horticultural Assoc.
- Nurseries
- Onions
- Papaya
- Pistachio
- Potatoes
- Rubus and Ribes
- Tomatoes (GH)
- Tropical fruits
- Walnuts

As a flow on from the permit holder transfer process from non-vegetables and the AUSVEG permits, the following permit consolidation applications were submitted to APVMA:

Active ingredient	Crop (previously a single permit or a proposed project)	Target
Azoxystrobin	Brassicas Asian fruiting vegetables Cucumber (greenhouse) Pistachios Almonds Rubus, Ribes & blueberries	White blister Powdery mildew, Sclerotinia, Botrytis Alternaria Alternaria & Botryosphaeria Anthracnose & Botrytis
Bifenthrin	Cucurbits, brassicas, beans & lettuce Peppers (Sweet, chilli) & eggplants Pistachio nuts Cherries Sweet potato Beans & celery	Silverleaf whitefly Twospotted mites Flea beetles Carpophilus beetles Wireworm Redlegged earth mite
Captan	Almond Blueberry Pistachio Pitaya Rubus & Ribes	Anthracnose Anthracnose Anthracnose Anthracnose & Phytophthora Cane spot, Spur blight & Botrytis
Chlorothalonil	Spring onions Tamarillo Capsicum Beetroot Papaya	Downy mildew Anthracnose Botrytis Cercospora Leaf & fruit spots
Diquat + paraquat	Pistachio Hazelnut	Orchard weeds

Active ingredient	Crop (previously a single permit or a proposed project)	Target
Imidacloprid	Peppers	Greenhouse whitefly, thrips & aphids

	Cucurbits Cape gooseberry Lettuce, chicory, endive & radicchio Beans, Brassicas, cucurbits & okra Asian root vegetables Exotic tropical fruits	Aphids & wireworm Aphids & melon thrips Lettuce aphid Silverleaf whitefly Greenhouse whitefly & thrips Citrus mealy bug & Redbanded thrips
Iprodione	Brussels sprout Carrots Parsley & coriander Peas – garden Snow & sugar snap peas Pistachio Silverbeet & spinach	Damping-off Black rot Sclerotinia & Botrytis Sclerotinia Sclerotinia Botrytis Sclerotinia & Botrytis
Lambda-cyhalothrin	Radish & Celery Capsicum Snow peas and sugar snap peas Brassica leafy vegetables Spinach & Silverbeet	Many insect pests for each crop
Petroleum oil	Capsicum (GH) & Cucumber (GH) Lettuce (field and GH) Rubus	Various insects for each crop
Pirimicarb	Eggplant Celery, coriander, chicory & sweet corn Almonds Pistachios Pitaya (dragon fruit)	Aphids Aphids Green peach aphid Green peach aphid Aphid
Phosphorous acid	Bulb vegetables (Alliums) Lettuce	Suppression of downy mildew Downy mildew
Propiconazole	Almonds Beetroot Blueberries Celery Spinach	Blossom blight & Anthracnose Leaf spot Rust Septoria spot & Cercospora Leaf spot
Procymidone	Asian fruiting vegetables, berry fruit, brassicas, bulb vegetables, celery, cucurbits, leafy vegetables, legume vegetables, ornamentals, peppers, root vegetables, tomato	Sclerotinia rot Botrytis rot
Pymetrozine	Cucurbits, eggplant, tomato, lettuce & broccoli Almonds Pistachio	Silverleaf whitefly Green peach aphid Green peach aphid
Thiamethoxam	Alliums (other than onions), berry fruit, brassica vegetables, cucurbit vegetables, eggplant, herbs, leafy vegetables, legume vegetables, okra, ornamental, peppers, pome fruit, stonefruit, strawberry, tomato	Western Flower Thrips

The project was also responsible for the renewal of all permits for which it was the permit holder. The role of the project was to:

- Communicate with the industry to determine the value of the permit before renewing
- Prepare and submit the minor-use permit renewal prior to it expiring

- Monitor progress of all permit renewals and keep each industry informed.
- Provide APVMA with any additional information required in relation to any permit renewal.
- Notify all horticultural industries by email and handouts that permits had been issued.
- Maintain the HAL database on each study.

Current permits

The range of horticultural crops for which minor-use permits have been applied for under the project are:

- | | |
|-------------------|--------------------|
| • Vegetables | 59% |
| • Fruit crops | 16% |
| • Nuts | 12% |
| • Berries | 5% |
| • Nursery/flowers | 5% |
| • Others | <u>3%</u> |
| | <u>100%</u> |

There are currently 1630 requests on the HAL Minor-use database that have been submitted by industry (July 2007) and which are at various stages of progression, ranging from industry nomination to APVMA approval. Of these approximately 70% are for vegetables (approx 1140) and 30% fruit and other horticultural crops (approx. 490). Fruit and other horticultural crops are much lower, due to only recently being added to the database. Since early 2006, the majority of requests have been received from fruit, nut and ornamental industries.

As the information contained in the HAL Minor-use database was previously for vegetables only, it is difficult to separate projects that occurred pre and post the commencement of this project. For this reason all horticultural projects will be summarised.

Of the 1630 requests, 735 have progressed to the projects database (studies initiated/completed).

The balance has not progressed for the following reasons (895 requests):

- 155 requests were duplications
- 23 requests had existing permits
- 189 requests were already registered
- 16 were modified to combine with other requests
- 177 were stopped for lack of information, commercial or technical reasons
- 39 requests after initiation were stopped as the use was to be registered by the agrichemical manufacturer
- 296 requests are proposed awaiting prioritisation – the majority of these requests have been screened by the PMUC, APVMA and manufacturers for data requirements - individual industries have been asked to prioritise needs according to estimated costs and available funding

90 requests are in various stages of research trials and report preparations:

- 46 requests are currently undergoing residue trials
- 44 requests have had residue trials completed but analysis is yet to be conducted or are desktop applications awaiting submission

645 requests are finalised but subject to ongoing management by the PMUC:

- 238 requests have permits issued (that will require ongoing administrative monitoring for renewal, etc.). Of these:
 - Vegetables – 179 permits (of these 85 permits were managed by this project)
 - Fruit crops – 23 permits
 - Nuts – 17 permits
 - Berries - 8 permits
 - Nursery/flowers – 7 permits
 - Others - 4 permits
- 81 requests are with APVMA (23 new & 58 renewal)
- 45 requests have been passed on to the agrichemical manufacturer for registration
- 164 requests have been modified and incorporated into other permits
- 117 have been deferred or stopped due to changes in pesticides, inadequate or unfavourable data, change in manufacturer support, change of permit ownership, non-acceptance by APVMA

Strategic Agrochemical Review Process

SARP was conducted with many horticultural industries since April 2006 to June 2007. In total 20 meetings were held around Australia that involved key growers, retailers, consultants, IDO's and government agencies.

The following meetings were held in each state:

State	Crop meetings held
New South Wales	Vegetables, greenhouse crops, turf, vegetable seedling nurseries
Northern Territory	Vegetables, mango, tropical fruits
Queensland	Vegetables, mango, lychee, papaya, vegetable seedling nurseries
South Australia	Vegetables
Tasmania	Vegetables, greenhouse crops
Victoria	Vegetables, processing tomato, strawberries, vegetable seedling nurseries
Western Australia	Vegetables

Horticultural crops that have been covered by SARP in one or more states are:.

- artichoke
- bean
- beetroot
- blueberries
- brassicas leafy vegetables
- broccoli
- Brussels sprout
- cabbage
- capsicum, chilli, paprika (GH & field)
- carrot
- cauliflower
- celery
- cucumber (GH & field)
- eggplant
- endive
- fennel
- leek
- lettuce (GH & field)
- lychee
- mango
- melon & bitter melon
- onion
- okra
- papaya
- parsley & coriander
- parsnip
- pea
- potato (fresh & processing)
- pumpkin
- radish
- rhubarb
- Rubus & Ribes

- silverbeet
- snake bean
- snow pea & sugar snap pea
- spinach
- spring onion / shallots
- strawberry
- sweet corn
- sweet potato
- taro
- tomato (GH, processing & field)
- turf
- vegetable seedling nurseries
- zucchini

Horticultural crops that have indicated that they require a SARP assessment are:

- almonds
- onions
- pistachios
- pome fruit
- potatoes
- production nursery
- stone fruit
- table grapes

Significant benefits and linkages have developed from SARP that will strengthen the overall results. Some of the links are:

- Kevin Bodnaruk, consultant – residue compliance and trade
- Tony Burfield, SARDI – IPM and Western Flower Thrips projects
- Stephen Goodwin, consultant - greenhouse and hydroponic IPM
- Barbara Hall, SARDI – greenhouse diseases project
- Grant Herron, NSW DPI – thrips and mites resistance projects
- Paul Horne, IPM Technologies P/L – IPM project
- Sandra McDougall, NSW DPI – IPM projects
- Liz Minchinton, DPIV – disease project
- Leigh Pilkington, NSW DPI – insect management strategies
- Graeme Smith, Hydroponic Design P/L – greenhouse and hydroponic cropping systems
- Lynton Vawdrey, QDPIF – disease in tropical fruits
- Darren Waterson, NSW DPI – market residue monitoring

Resourcing

Due to the increasing workload associated with all activities conducted by AgAware Consulting P/L for this project, additional resources were sourced. Rob Velthuis (Xeron, Bendigo) and Ross Holding (Classy Solutions, Ballarat) were involved in consolidating SARP information for industry.

Improvements in the minor-use process

During the life of this project many improvements have been implemented to add to the efficiency of the minor-use process. These were:

- Improvement of the communication systems
 - Face-to-face
 - Teleconferences – horticultural industries, associations, manufacturers, APVMA
 - New network notification system by email
 - More magazine articles
 - Newsletters
 - APVMA links
- Improved database management leading to targeted project selection
- Strength in driving collaboration between horticultural industries
- International collaboration to the benefit of Australian horticultural industries

Benefits to industry

Before this project, individual industries would apply for minor use permits. According to APVMA the problems they encountered with this approach were:

- Varying quality in permit applications from each horticultural industry
- Many poor applications often leading to extended time allocation by APVMA leading to long delays
- Rejection of some permit applications as supplied data not adequate
- Duplication of permits from similar industries for the same pesticides leading to poor APVMA efficiencies
- Poor communication processes within each industry to permits issued
- APVMA requested additional data not provided

Although it is difficult to directly measure the benefits of the project to each horticulture industry some of the tangible benefits were:

- A thorough understanding of the permit application process that is better than individual industries
- A standardise procedure for all industries to prioritise minor-use requests
- A Reduction in the workload for individual industries by being able to pass minor-use requests to the project to deal with
- SARP is providing each industry with an understanding of its plant pests / pesticide use and a strategic plan for future pesticide requirements
- A standardise procedure for all industries for minor-use permit applications
- Standardise procedures for permit applications developed in association with APVMA
- Permit consolidation across industries to improve APVMA efficiency and minimise industry costs
- Prompt response to APVMA on any permit issues
- APVMA sees the project as streamlining the permit process with better quality applications and quicker approvals
- Coordination of outstanding data requirements as stipulated on permits across all industries, ensuring work is completed by the due date
- Strong links with the agrichemical manufacturers in obtaining data and liaising for the registration of permit uses.
- Develop a database and tracking system that is “user-friendly” and accessible to all industries on request,
- Prompt communications with all stakeholders on permits and pesticide issues
- After the issues of permit holder are sorted out, most horticultural permits will be held be HAL. This provides a sound position to negotiate with manufacturers for registration

Special issues

The project was involved in many special issues/projects/groups that were relevant to many horticultural industries. These included:

- APVMA
 - Crop grouping discussion group
 - Communications Working Group
 - Labelling working group
 - Liaison working group (proposed)
 - Major/minor crops discussion group

- Minor-use task force
- Operational working group
- Users workshops
- AUSVEG
 - Chemicals of security concern – discussion group
 - Chemical working group (chairman)
 - IR-4 (USA) and PMC (Canada) – international data collaboration
 - Lettuce aphid working group
 - Production advisory group
 - Protected crop residue monitoring program
- Minor-Use Liaison Office
 - Operational structure
 - Future funding
- SA Chemical Standards Office

Communication

A key component of the project was the communication of all permits issued by APVMA but also any issues that arose relating to pesticide use, availability, efficacy and residues.

After discussions with most of the horticultural industries that this project serviced, it was decided that all industries would be notified of all permits issued for all horticultural industries. This was seen as a way of sharing information.

The process of communicating this information was predominately by email (example attached – Attachment 1), but also by:

- Articles for industry and HAL publications (example attached – Attachment 2)
- e-Newsletters (example attached – Attachment 3)
- Presentation at meetings
- Teleconferences

It was impossible for all potential users of minor-use permits to be notified directly by the projects of all permits issued. The project relied on the multiplier affect by the recipients on the circulation list for the email notification (Attachment 1) to circulate the information to their clients, as well as the information being presented in magazines and meetings.

Every three months the project prepared a complete list of all horticultural permits (HAL based and others) and circulated to each horticultural industry to distribute.

A key stakeholder that provided significant information to support any work undertaken in the project was the agrichemical manufacturers. The project developed a close working relationship with many of the key manufacturers. Those that were regularly contacted (every one-three months) were:

- | | |
|-------------------------------|----------------------------|
| ● Agrichem | ● Farmoz |
| ● Animal Control Technologies | ● Jaegar |
| ● Bayer | ● Nuchem |
| ● BASF | ● Nufarm/BASF |
| ● Chemtura | ● Organic Crop Protectants |
| ● Crop Care | ● Syngenta |
| ● Dow | ● Sumitomo |
| ● Dupont | ● United Phosphorus |

These organisations were part of the communication network on minor-use permits.

Manufacturers provided information for such things as:

- Domestic and overseas residue data
- Domestic and overseas efficacy and crop safety data
- Overseas labels
- Pesticide management strategies – resistance, IPM, residues
- Converting permits to labels
- Market trends, advise and support

The retail network was also an excellent source of information on pesticide issues. Those that were regularly contacted (every one-three months) were:

- Caldwells (Vic & NSW)
- EE Muirs & Sons (nationally)
- Elders (nationally)
- IHD Group (nationally)
- Serve-Ag (nationally)
- Skinners (Vic & NSW)
- Wesfarmers (nationally)

These organisations were part of the communication network on minor-use permits.

Grower and industry organisations that were also an excellent source of information and support were:

- Australian Chamber for Fruit and Vegetables Australian Herb & Spice Industry Association (nationally)
- Australian Hydroponics and Greenhouse Association (nationally)
- Bundaberg Fruit and Vegetable Growers Assoc (Qld)
- Growcom (Qld)
- Northern Territory Horticultural Association (NT)

These organisations were part of the communication network on minor-use permits.

Outcomes

The direct value of the project is difficult to measure as the client base is all horticultural growers spread across Australia. Purely from the positive response received from grower industries, growers, consultants, retailers, government agencies and industry associations, the project is highly valued and provides an excellent service to industry.

An evaluation of the project was conducted by Scholefield Robinson Horticultural Services Pty Ltd in April 2007. In this report it states:

Our assessment of the effectiveness of the PMUC, based on Milestone Reports, discussions with APVMA, industry and organisations is:

- *The extensive contacts that Peter dal Santo has in industry, agencies and chemical companies across Australia have been of great benefit to this project and to horticulture.*
- *Industry groups have been very supportive of the role he has played in accessing minor use permits.*
- *Some competing organisations have been less supportive but this may relate more to their past experiences with AUSVEG and CPA.*
- *The comment that PMUC is still running the project as a vegetable project is not supported by the facts.*

- APVMA sees the PMUC as streamlining the permit process with quicker approvals for horticultural applications.

Some of the things that have worked well are:

- There is a protocol available for minor use applications that is better understood by industries and appreciated by APVMA.
- The SGAP and SARP processes for assessing chemical needs and priorities are being promoted to industry groups as part of the communication strategy of the PMUC. These methodologies provide a more structured way of assessing needs and priorities.
- Considering the scope of the PMUC role and the personnel available to the project we are impressed that it has worked as well as it has.

A copy of the Scholefield Robinson Horticultural Services report is attached.

AgAware believes that it has completed the tasks associated with this project by:

- Undertaking a coordinated approach to permit acquisition across all horticultural industries in association with stakeholders and APVMA.
- Determining data requirements and costs to obtain registrations/permits for pesticides on behalf of each industry. This was clearly communicated to each relevant industry.
- Setting up cost sharing arrangements/ funding across horticultural industries regarding data generation and permit applications to maximise efficiencies and minimise costs.
- Coordinating registrations/permits with industries, agrichemical manufacturers and APVMA
- Providing prompt feedback to individual industries on registrations and permits granted pesticide use changes, pesticide efficacy or crop safety issues and residues.

Recommendations

Although the project, AH04009 – Coordination of minor-use permits for horticulture, is completed the work associated with pesticide access in horticulture continues and is still seen as a major priority by most horticultural industries.

Many of the minor-use permit applications submitted to APVMA have yet to be issued. Therefore future activities will be to:

- Monitor the permit application process with APVMA until all permits are issued.
- Provide permit information to the horticultural industries as needed.
- Provide pesticide and technical support to the horticultural industries at meetings, field days, seminars and publications.

There is also the requirement to continue the:

- Permit consolidation process for all horticultural permit
- Renewal of all future permits in a timely manner
- Transfer of the permit holder role to HAL
- Negotiations with APVMA on improving the:
 - Permit process
 - Major/minor crops
 - Converting permits to registration
- Work with monitoring agencies to identify all pesticides at risk and provide options

Also, each industry supports that the Strategic Agrichemical Review Process should be conducted every two years as the plant pests, pesticides, crops, environment and residues will change over this time.

Given the experience developed by AgAware Consulting P/L in conducting ‘AH04009 – Coordination of minor-use permits for horticulture’ it is well place to continue and improve on these tasks with ‘MT07029 - Managing pesticide access in horticulture’.

Acknowledgement

APVMA:	All staff, especially Alan Norden, Raj Bhula and Jenny Dunn
Consultants:	Kevin Bodnaruk (NSW), Domenic Cavallaro (SA) and David Carey (Qld)
Government agencies:	Each state DPIs as excellent sources of information
Horticulture Australia:	Brad Wells
Industry Development Officers:	All, especially the Vegetable IDOs
Work colleagues:	Eileen Dal Santo, Rob Velthuis (Xeron) and Ross Holding (Classy Solutions)

Acronyms

AgAware	AgAware Consulting Pty Ltd
APVMA	Australian Pesticides and Veterinary Medicines Authority
AUSVEG	Australian Vegetable and Potato Growers Federation
DPI	Department of Primary Industries
DPIV.....	Department of Primary Industries Victoria
Field	Field grown crops
GH	Greenhouse crops
HAL	Horticulture Australia Ltd
IDO	Industry development officers
IHD	Independent Horticultural Distributors
IPM	Integrated pest management
IR-4	Interregional Program 4 (USA)
Plant pests	Diseases, insects, nematodes, viruses, weeds, etc
PMC	Pest Management Centres (Canada)
PMUC	Pesticide minor-use coordinator
Pesticides	Plant protection products (fungicide, insecticide, herbicide, nematocide, etc).
QDPIF	Queensland Department of Primary Industries and Fisheries
SARDI	South Australian Research & Development Institute
SARP	Strategic Agrichemical Review Process

FIGURE 2: The Strategic Agrichemical Review Process flow chart

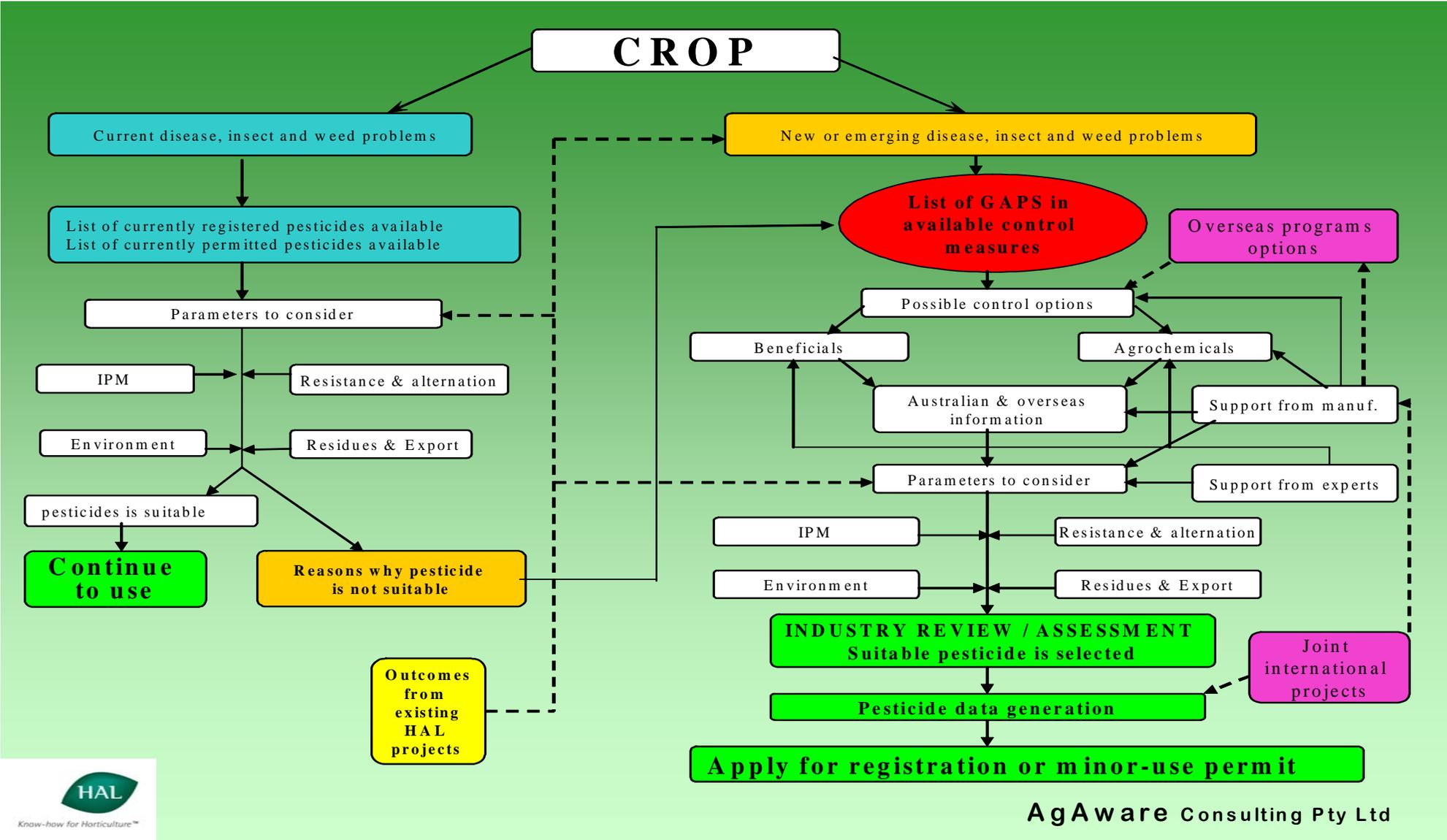


TABLE 1: List of all emergency and urgent permits

PESTICIDE / CROP / TARGET PLANT PEST – PERMIT TYPE & STATUS
Alliette / Impatiens / Downy mildew – emergency permit granted
alpha-cypermethrin / onions - emergency permit granted
azoxystrobin / beans & lettuce / Sclerotinia – emergency permit granted
azoxystrobin / Impatiens / Downy mildew – emergency permit granted
bifenazate / strawberries / Two-spotted mites – emergency permit granted
boscalid / beans / Sclerotinia – emergency permit granted
boscalid / lettuce / Sclerotinia – emergency permit granted
boscalid / brassicas, cucurbits, strawberries, tomatoes / Sclerotinia & Botrytis – emergency permit granted
cupric hydroxide / stonefruit (Qld only) / bacterial spot from storm damage – emergency permit granted
cyproconazole / potatoes / Target spot – emergency application rejected
cyprodinil + fludioxonil / Peas – garden, snow & sugar snap / Sclerotinia – emergency permit granted
cyprodinil + fludioxonil / strawberry / Colletotrichum - urgent permit granted
dimethomorph / brassica leafy vege / White blister – urgent permit granted
dimethomorph / Impatiens / Downy mildew – emergency permit granted
dithianon / apples (NSW & Qld only) / Alternaria – emergency permit granted
ethephon / bananas (Qld only) / sucker management – emergency application rejected
ethephon / mango / growth regulator – urgent application still under assessment
fenoxycarb / olives / Black scale – urgent permit granted
imidacloprid / potatoes - emergency permit granted
imidacloprid / tomatoes (greenhouse/hydroponics) / Greenhouse whitefly - urgent permit Confidor Guard (imidacloprid) / lettuce (direct seeded) / Lettuce aphid – emergency permit granted
indoxacarb / stonefruit / heliothis - urgent permit granted
indoxacarb / strawberries / White fringed weevil - urgent permit granted
mancozeb / Impatiens / Downy mildew – emergency permit granted
metalaxyl (Ridomil 25G) / pawpaw (Qld only) / Phytophthora & Pythium – emergency permit granted
metalaxyl (Ridomil 25G) / parsley (Qld only) / Phytophthora & Pythium – emergency permit granted
metiram / apples (NSW & Qld only) / Alternaria – emergency permit granted
methidathion / citrus / Kelly's citrus thrips – urgent permit granted
methomyl / lettuce (field) / various insects – urgent permit granted
methomyl / macadamia / Banana fruit caterpillar - urgent permit granted
pendamethalin / brassica leafy vegetables / weeds – urgent permit granted
phosphorous acid / pawpaw (Qld only) / Phytophthora & Pythium – emergency permit granted
procymidone / multiple crops / Sclerotinia – urgent application still under assessment
thiamethoxam / mango / mango seed weevil – urgent permit granted for export fruit
thiamethoxam / various crops / Western Flower Thrips – urgent application still under assessment
trifluralin / root vegetables / weeds – urgent permit granted
zinc phosphine / bananas / rats & mice – urgent permit granted

ATTACHMENT 1: Example of the email communication on permits

From: Peter Dal Santo (Agaware) [mailto:pds@agaware.com.au]

Sent: Thursday, 28 June 2007 8:39 AM

To: 'Judith (Citrus-EO) Damiani'; 'Alison Saunders'; 'Tony Russell'; 'Stephen (Ausveg Comm Off) Zelez'; 'Ian (DPIV plant path) Porter'; 'Bronwyn (QDPI extension) Walsh'; 'Graeme (AHGA) Smith'; 'Tracey (NTHA) Leo'; 'Brendan (QDPI ento) Nolan'; 'Barbara (SARDI plant path) Hall'; 'Barry (NT Ag plant path) Conde'; 'Andrew (WA Ag plant path) Taylor'; 'Chrys (QDPI&F plant path) Akem'; 'John (Leppington Seeds) Vella'; 'Jenny (NGIA CEO) Lambert'; 'Luke Jewell'; 'Karl Riedel'; 'Michael Danelon'; 'John McDonald'; 'Enver Sabri'; 'Gary (Caldwells) Pither'; 'Iain (QDPIF-ento) Kay'; 'Peter Aird'; 'Liz (DPIV - pathology) Minchinton'; 'David Carey'; 'Domenic Cavallaro'; 'Kevin Bodnaruk'; 'Doug Green'; 'Patrick Ulloa'; 'Alison Anderson'; 'Craig Feutrill'; 'David Ellement'; 'Stephen Welsh'; 'Gary Artlett'; 'Rodney (Elders) Atkin-Smith'; 'Scott Mathew'; 'Guy Perriman'; 'Melita (Nufarm - horti reg aff) Shalders'; 'Stuart (Bayer-Hort Mkt Mgr) McLaverty'; 'Kerrie (Cropcare-Bris) MacKay'; 'Doug Wilson'; 'Paul Hughes'; 'Dale (BCMS) Abbott'; 'Stephen (NSW DPI - IPM) Goodwin'; 'Graham (Withcott) Erhart'; 'Ian (Boomaroo) Willert'; 'Chris (Prospect Ag) Monsour'; 'Paul (Vic consultant) Horne'; 'Sandra McDougall'; 'Geoff Perkins'; 'Ron (Hortnz) Gall'; 'Alison (Rubus & BB IDO) Brinson'; 'Andrew (NSW DPI plant path) Watson'; 'Martin (Freshtest) Clark'; 'Martin Collett'; 'Darren (NSWDPI - Pesticide Mgt) Waterson'; 'Henry (Qld consultant) Drew'; 'Greg (SARDI ento) Baker'; 'Grant Herron'; 'Gary (DPIV tobacco) Baxter'; 'Andrew (Aust Mac Soc) Heap'; 'Anna (Summerfruit) Steinhauer'; 'Beth (Strawb Aust CEO) Luckhurst'; 'Bradley Mills'; 'John Tyas'; 'Ross Skinner'; 'Stuart Burgess'; 'Bronwyn Vorpapel'; 'Wayne Thompson'; 'Vlad Kawaljenko'; 'John Kassebaum'; 'David (SCC-ACT) Power'; 'Chris (WA SCC) Sharpe'; 'Craig Dunlop'; 'David (Dupont-R&D) McQuinn'; 'Ian Parr'; 'Peter (QDPI extension) Deuter'; 'Jeremy Badgery-Parker'; 'Trevor (SARDI plant path) Wicks'; 'Stacey (NSWDPI IPM) Azzopardi'; 'Kerry Webb'; 'Len (NSW DPI plant path) Tesoriero'; 'Vic (SA vege consultant) Szabo'; 'Tom Lamond'; 'Tony (SARDI extension) Burfield'; 'Subra (QDPI ento)'; 'Luc (Syngenta horti reg) Streit'; 'Rachel (WA Ag plant path) Lancaster'; 'Tim Hammond'; 'Scott (Chemtura) Lane'; 'Anne Martin'; 'Jane Parker'; 'Warwick (HAL ISM) Scherf'; 'Ross (Ausveg IDM) Ord'; 'Trevor Dunmall'; 'Antony (Avocado CEO) Allen'; 'Leanne (HAL PlantHealth) Wilson'; 'Peter (Pistachio Chair) Weir'; 'Julian (Agronico-) Shaw'; 'Steven (Agronico-) Ives'; 'Chris (Agronico-) Merry'; 'Lesley (Agronico-) Milnes'; 'Robyn (Agronico-) Bergersen'; 'david.williams@dpi.vic.gov.au'; 'Kate (Vege IDO Qld) Dunn'; 'Rod (Farmoz) East'; 'Peter (Makhteshim) Chalmers'; 'Dominic (Summerfruit) Nardi'; 'Penny (DPIWE IPM horti) Domeney'; 'Bill (IHD) Dowdle (dowdleb@ihd.com.au)'; 'Greg (EE Muirs) Linsdell'; 'Greg (Farmer Johns) Schubert (greg@farmerjohns.com.au)'; 'Ian (Lenswood Rural) Daynes (ian@lenswoodrural.com)'; 'Mario (MIA Rural) Pasqualotto (mario@miarural.com.au)'; 'Andrew (Elders - Horti Nat Mgr) Meurant'; 'Chloe (Strawberry - Vic IDO) Thomson'; 'Don (QDPI straw path) Hutton'; 'Lachlan (WA IPM consult) Chilman'; 'Lourens (Straw Qld IDO) Grobler'; 'Michele (Berry DPIWE Tas) Buntain'; 'Vanessa (Strawberries SA) Sherry'; 'bill@croptech.com.au'; 'Paul.O'Hare@dpi.qld.gov.au'; 'Russ (Nursery consult) Higginbotham'; 'David (ORIA Coop) Cross'; 'Maree (DPIV Chem Stand) Jekic'; 'Robert (NGIA) Prince'; 'Dale (Agronico Res Mgr) Griffin (dgriffin@agricono.com.au)'; 'Jonathan Eccles (jonathan@eccles.com.au)'; 'Kendle (HAL ISM) Wilkinson'; 'Lucy (HAL ISM) Keatinge'; 'Will (HAL ISM) Gordon'; 'Clare (Peracto SD) Crowther'; 'Jane (Peracto QA) Floyed'; 'Heidi (QDPI plant path) Martin'; 'Subra (QDPI ento)'; 'Iain (QDPI ento) Kay'; 'John (QDPI ento) Duff'; 'Sam (Strawb Aust presid) Violi'; 'Julie (Almonds EO) Harslett (jhaslett@australianalmonds.com.au)'; 'Hoong (Peracto - pathology) Pung'; 'Rodney (Peracto Research) Burn'; 'Ian Macleod'; 'Jo (ANIC secretary) Ireland'; 'Robert (NGIA) Prince'; 'Gregg (Dow) Baynon'; 'Chris (Dow) Brown'; 'Andy (Beneficial bugs) Ryland

Cc: 'Brad Wells'

Subject: New permits

Hello all

The following permits have been issued by APVMA.

PER9841 – Folicur (tebuconazole) / lettuce / Sclerotinia rot

Valid 21/05/07 to 31/12/08

Valid for all states other than Vic.

PER9845 – Amistar (azoxystrobin) / beans & lettuce / Sclerotinia rot

Valid 21/05/07 to 30/9/07

Valid for all states other than Vic.

Full details of the permits are available on the APVMA website,

<http://www.apvma.gov.au/permits/permits.shtml>

Please circulate to all interested and relevant parties.

Peter Dal Santo

AgAware Consulting Pty Ltd

ATTACHMENT 2: Example of an industry media article

HAL Annual Industry Report, 2006

Improving access to minor use pesticide permits in horticulture

Horticulture Australia Ltd is funding a project covering all horticultural industries to improve the access to pesticides through Minor-Use Permits. AgAware Consulting manages the project, 'AH04009 Coordination of Minor-Use Permits for Horticulture'.

The project is taking a strategic approach to permit acquisition across all horticultural industries by:

- Consolidation multiple permits for the same pesticide into one permit containing multiple crops. To date 12 compounds have been consolidated into 'mega-permits' that previously constituted 56 different permits or permit applications.
- Undertake a 'strategic pesticide gap analysis' with all participating industries to evaluate current pesticides for specific selection criteria such as IPM fit, resistance management, residues and trade. Gaps in available pesticides are determined and new control options selected using the same selection criteria. To date, the analysis has been undertaken with the vegetable industry in 4 states reviewing 27 different crops. This will form the basis of all future pesticides requests.
- Coordinate data generation with the regulatory authorities and manufacturers to maximise efficiency.
- Provide feedback to individual industries on permits issued.
- Address specific industry issues in relation to pesticide use such as emergency and urgent permit applications.

AUSVEG projects have recently been allocated to service providers using this consolidation process. This maximised funds available and will provide results in the shortest time possible, but still abiding by the requirements of the regulatory authorities.

All horticultural industries (other than AUSVEG) have received a list of all proposed pesticide projects with associated costs to prioritise and fund appropriately.

Outcomes will assist growers in solving crop protection problems, encourage the use of Integrated Pest and Disease Management systems, encourage the use of low-risk pesticides and manage chemical resistance. Furthermore, the project will aid in meeting legal requirements regarding chemical use, ensure produce does not contain unacceptable chemical residues and meet the requirements of quality assurance systems and export markets.

Project duration: the project is due for completion in June 2007

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Strathfieldsaye, Victoria
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pds@agaware.com.au

ATTACHMENT 3: Example of newsletter

HORTICULTURAL PESTICIDES MINOR USE UPDATE -WINTER 2006 –

This is the third edition of the Horticulture Minor-Use Update prepared by AgAware Consulting Pty Ltd. The aim of the Update is to provide each horticultural industry, government agencies, reseller network, horticulture consultants and agchem manufacturers with the latest information on the Horticulture Australia (HAL) funded project, 'AH04009 – Coordination of minor-use permits for horticulture'.

PROJECT AIMS

The project aims to assist all horticulture industries to protect their crops from diseases, insects or weeds by coordinating and consolidating the minor-use permit application process on their behalf. The project will undertake the assessment of chemical suitability, resistance, IPM, residues and exports in its evaluations. The project is also conducting 'strategic pesticide gap analyses' with participating industries to critically evaluate current pesticide options and future pesticide needs.

EMERGENCY PERMITS

Several industries have had emergency or urgent permits issued over the past six months. These are:

Permit number	Permit holder	Crop	Pest	Product	Expiry date
9269	AgAware on behalf of HAL	Seedlings of: Lobed croton, <i>Euphorbia spp.</i> Lisianthus, <i>Physalis spp.</i> , tomatoes & peppers (excl. hydroponic production) (Qld & NSW)	<i>Bemisia tabaci</i> native biotype (Sweet potato whitefly), <i>B. tabaci</i> biotype B (Silverleaf whitefly)	Confidor 200 SC (imidacloprid)	31 Jan 2007
9075	AgAware on behalf of APAL	Apples (Qld & NSW)	Alternaria	Delan (dithianon)	20 Jun 2006 (Growcom)
9060	AgAware on behalf of APAL	Apples (Qld & NSW)	Alternaria	Polyram (metiram)	20 Jun 2006 (Growcom)
9072	AgAware on behalf of Strawberries Aust	Strawberries (NSW, SA, Vic)	Twospotted mite	Acramite (bifenazate)	25 January 2011
9261	AgAware on behalf of HAL	Pawpaw (Qld)	Black Spot & Brown Spot	Bravo (chlorothalonil)	30 Nov 2007
8654	AgAware on behalf of Aust Macadamia Society	Macadamia orchards (NSW, Qld)	Rats (various species)	Rattoff Bait Sachet (zinc phosphine)	1 Feb 2008
9260	AgAware on behalf of HAL	Pawpaw (Qld)	Phytophthora root rot & Pythium	Ridomil 25G + phosphorous acid	30 Nov 2007
8140	AgAware on behalf of AUSVEG	Lettuce, chicory, endive & radicchio (NSW)	Lettuce aphid (soil application)	Confidor Guard (imidacloprid)	31 Jun 2007
9184	AgAware on behalf of AUSVEG	Lettuce, broccoli, cauliflower, cabbage, okra, beans (NSW, Qld, NT, WA)	Silverleaf whitefly (seedling drench or soil application)	Confidor 200 SC or Guard (imidacloprid)	30 Sep 2008
8140	AgAware on behalf of AUSVEG	Potatoes (Qld)	Silverleaf whitefly (soil application)	Confidor Guard (imidacloprid)	31 Mar 2008
9379	AgAware on behalf of AUSVEG	Parsley (Qld)	Phytophthora root rot & Pythium	Ridomil Gold 25G	30 Sep 2011

Emergency permits still under APVMA evaluation

Permit holder	Crop	Pest	Product	Expected issue date
AgAware on behalf of EE Muir	Olives	Black scale	Insegar (fenoxycarb)	Late July 2006
AgAware on behalf of Aust Mango Industry Assoc.	Mango	Mango seed weevil	Actara (thiamethoxam)	Late July 2006

Emergency permits rejected by APVMA

Permit holder	Crop	Pest	Product	Reason
AgAware on behalf HAL	Bananas	Sucker management	Ethrel (ethephon)	No residue data available – currently being generated

STRATEGIC PESTICIDE GAP ANALYSIS

A Strategic Pesticide Gap Analysis (SPGA) assesses the current fungicides, insecticides and herbicides available to any particular horticultural crop and matches it to the diseases, insects and weeds that are registered to be control. SPGA then assess the value of each of these pesticides for selected criteria with the aim of determining their future suitability for use given current and future market requirements. The assessments of current and future needs are conducted by key growers and stakeholders from the industry.

To date, this process has been very successful in the vegetable industry to determine future pesticide requirements. The process also allows for significant input from many other current HAL funded projects, including those in IPM, resistance monitoring, residues and export MRLs, disease and insect pest management options. It has been recently decided that as well as all major field crops being evaluated using SPGA, that greenhouse/hydroponic crops and production nurseries will also be evaluated as they are very unique cropping situations from a production sense with very unique issues.

Industries which have indicated interest in SPGA including Apple and Pear, Strawberry and Summerfruit.

Industries interested in more information on conducting SPGA should contact AgAware Consulting or their HAL Industry Services Manager.

Outcomes from the project will aid growers in meeting legal requirements regarding chemical use, ensure produce does not contain unacceptable chemical residues and meet the requirements of quality assurance systems and export markets.

MINOR-USE PERMITS

In addition to the emergency and urgent permits, many minor-use permits were also applied for or renewed in a range of horticultural crops.

AgAware is working with the Australian Pesticides and Veterinary Medicines Authority to consolidate a range of horticultural permits for the same pesticide into one permit with multiple crops. To date permit consolidation has been undertaken for 12 pesticides that will potentially convert 56 different permits or permit applications into 14 'mega' permits. This process is on-going as new permits are requested and permits require renewal.

All horticultural industries have recently received a list of all current horticultural permits. This was prepared with the support of APVMA. All permits are available from the APVMA website, <http://www.apvma.gov.au/permits/permits.shtml> or AgAware.

Industries indicating support of studies to get minor use permits including Apple and Pear, Cherry, Nursery, Potato, Strawberry and Summerfruit. Discussions will begin with these industries to determine and confirm the genuine need for the minor-use permit by conducting the SPGA **before** conducting any permit work.

WESTERN FLOWER THRIPS

As reported in the last newsletter, permits are current for abamectin, acephate, chlorfenapyr, endosulfan, methamidophos, methidathion, methomyl and pyrazophos for the control of Western Flower Thrips (WFT) in a range of horticultural crops. Fipronil (Regent) was another pesticide that was requested, but was delayed due to residue issues by APVMA. This has now been resolved and a permit will be requested for its use in many crops in the next month.

PROPOSED PROJECTS

All horticultural industries have received a list of all proposed minor-use pesticide requests with associated costs to prioritise and fund appropriately.

The total proposed projects total 212 entries. These are made up of:

- Vegetables (AUSVEG) - 83
- Vegetables (non-AUSVEG) - 40
- Apples & pears – 5
- Tropical fruits – 23
- Summerfruits – 6
- Citrus – 5
- Nursery - 3
- Berries fruits – 33
- Nuts – 5
- Cut flowers - 4
- Miscellaneous – 5

For AUSVEG, 52 prioritised projects underwent the tender process and allocated to accredited researchers in April 2006 to be completed by mid 2007. Other industries have also allocated funds and will commit to projects over the next few months.

INDUSTRY MEETINGS

Over the past six months, meetings have been held with various horticultural industries, consultants, government agencies and agchem manufacturers to discuss their pesticide minor-use requirements, pesticide management issues and registration and the Strategic Pesticide Gap Analysis. The meeting aims are to explore the needs of industries, understand the issues associated with pesticide use, good agricultural practice, pesticide data availability and registration.

NEW INDUSTRY REQUESTS

The current list of proposed minor-use projects was closed on 30 July 2005. Since this time, many new permit requests have been received from various horticultural industries.

If your industry or association have any additional pesticide requirements, please provide the details in the table below and return it to your industry representative who will then forward the information to AgAware.

Crop eg. Macadamia	Product eg. Vertimec	Active eg. abamectin	Problem eg. Two spotted mites	Rate required eg. 100 g/100L	Any current control methods	Damage eg. fruit blemish	Impact eg. loss of value

CONTACT

If you have any queries or require any assistance regarding pesticide minor-use in horticulture, please contact Peter Dal Santo on Ph: 03 5439 5916 Fax: 03 5439 3391 or Email: pds@agaware.com.au

This project is assisted in its outcomes by the Project Advisory Committee. The role of PAC is to:

- Review the scope and focus of the project, providing ongoing advice on the strategic direction and outcome priorities to benefit across horticultural industries.
- Monitor the progress of the project.

You can contact the Project Advisory Committee whose members are:

- Joe Zappala – Qld farmer, Chairman of Papaya Australia and member of the Biosecurity Advisory Council of Qld
- John Bishop – Qld farmer, independent non-executive director of Growcom, chairman of the QFVG Heavy produce and QFF Environmental Committee
- Nicky Singh – NSW farmer, director and Vice President of the Australian Banana Growers Council and a director of the Banana Industry Committee in NSW
- Michael Danelon - Nursery Industry IDO in NSW
- Peter Cochrane – Vic farmer, Executive of Vegetables Growers Association of Victoria
- David Carey – Hort Qld (horticultural consultant) in south-east Qld
- Kevin Bodnaruk – AKC Consulting P/L, horticultural and pesticide consultant
- Brad Wells - Professional Services, Horticulture Australia Ltd

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