

**Preparing desktop  
minor use  
applications for  
vegetables**

Peter Dal Santo  
AgAware Consulting Pty Ltd

Project Number: VG04084

## **VG04084**

This report is published by Horticulture Australia Ltd to pass on information concerning horticultural research and development undertaken for the vegetable industry.

The research contained in this report was funded by Horticulture Australia Ltd with the financial support of the vegetable industry.

All expressions of opinion are not to be regarded as expressing the opinion of Horticulture Australia Ltd or any authority of the Australian Government.

The Company and the Australian Government accept no responsibility for any of the opinions or the accuracy of the information contained in this report and readers should rely upon their own enquiries in making decisions concerning their own interests.

ISBN 0 7341 1559 8

Published and distributed by:

Horticultural Australia Ltd

Level 1

50 Carrington Street

Sydney NSW 2000

Telephone: (02) 8295 2300

Fax: (02) 8295 2399

E-Mail: [horticulture@horticulture.com.au](mailto:horticulture@horticulture.com.au)

© Copyright 2007



*Know-how for Horticulture™*



# AUSVEG

## Preparing desktop minor-use applications for vegetable

Horticulture Australia Ltd

Project No: VG04084

AgAware Consulting

July 2007

**Horticulture Australia project no:**  
VG04048

**Project leaders name:**  
Mr Peter Dal Santo  
AgAware Consulting P/L  
21 Rosella Avenue  
Strathfieldsaye Victoria 3551  
Ph: 03 5439 5916  
Fax: 03 5439 3391  
Email: [pds@agaware.com.au](mailto:pds@agaware.com.au)

**Purpose of the report:**

This project was funded by Horticulture Australia Ltd to complete the minor-use permit application work initiated by Crop Protection Approvals in 2000. The project involved liaising with the contracted field researchers and analytical laboratories to ensure that they complete the designated tasks allotted to them with respect to data generation and then prepare minor-use permit applications to submit to the Australian pesticides & Veterinary Medicines Authority for approval.

This report summarises the applications that have been prepared as part of this project and their status as of July 2007.

**Funding sources:**

- Horticulture Australia Ltd
- AUSVEG

**Date of report:**

18 July 2007

**Disclaimer:**

Any recommendations contained in this publication do not necessarily represent current Horticulture Australia Ltd policy. No person should act on the basis of the contents of this publication without first obtaining independent professional advice on their specific situation.

## **Table of Contents**

<b>Media summary</b> .....	4
<b>Background</b> .....	5
<b>Minor-use permit applications</b> .....	5
<b>Communication</b> .....	6
<b>Organisational meetings</b> .....	7
<b>Recommendations</b> .....	8
<b>Acknowledgement</b> .....	8
<b>Appendices</b> .....	9

## **Media Summary**

Between April 2005 and June 2007, AgAware Consulting Pty Ltd managed the data generation, database management, permit applications process and communications for 80 projects that were still on-going relating to minor-use permits requests for the vegetable industry.

These projects were a carryover from the work initiated by Crop Protection Approvals between 2000 and 2003. Due to delays in data being made available from some field researchers and analytical laboratories, it was not completed until May 2007.

In all, 117 permit applications (new and renewals) were submitted to APVMA for minor-use permits in various vegetable crops, made up of:

- 80 new permit applications
- 1 new permit application that was also renewed
- 4 new permit applications were resubmitted after with additional data
- 6 emergency permit applications
- 26 permit renewals

The vegetable crops included in the minor-use permit work were:

- Brassica vegetables – brassicas, broccoli, Brussels sprout, cabbage, cauliflower
- Bulb vegetables – Alliums, garlic, leek, onion, shallot, spring onion
- Cucurbit vegetables – cucumber, cucurbits
- Fruiting vegetables – Asian fruiting vegetables, capsicums, eggplant, peppers, sweet corn tomato
- Herbs – coriander, parsley
- Leafy vegetables – brassica leafy vegetables, chicory, endive, lettuce, radicchio, silverbeet, spinach
- Legumes vegetables – beans, peas, snow peas, sugar snap peas
- Mushrooms
- Root vegetables – beetroot, carrot, parsnip, potato, radish, swede, turnip, sweet potato, taro
- Stem & stalk vegetables – artichoke, celery, rhubarb

As at 1 July 2007:

- 63 have had minor-use permits issued
- 44 are still under assessment
- To date no minor-use permit application has been rejected

This information has been circulated by email to all of my vegetable industry contacts. Promotional material on the project and information on permits has been prepared for regional magazines and newsletters, Vegetables Australia and the AUSVEG website.

The project will continue to liaise with APVMA and industry until all minor-use permits are issued.

## **Background**

In early 2004, AgAware Consulting P/L was awarded a project by Horticulture Australia Ltd (HAL) to complete the vegetable data generation trial work, residue analysis and permit application process that was initiated and managed by Crop Protection Approvals after its collapse in November 2003. The project 'VG03108 - Improve the access of pesticides for the vegetable industry via minor-use permits' ran from January to September 2004.

Due to some significant delays in the research providers completing the allocated trial work; all the vegetable minor-use permit applications were unable to be completed by September 2004, with some 80 projects still outstanding.

HAL and AUSVEG were committed to having all the projects completed and commissioned a new project to complete the work. 'VG04048 - Preparing desktop minor-use applications for vegetable'. This project began in April 2005 and would be completed when all vegetable minor-use permit applications were submitted to the Australian Pesticides and Veterinary Medicines Authority (APVMA).

The last laboratory report was received in May 2007.

The process involved:

- Ensuring that the field researchers and analytical laboratories completed all projects according to the conditions initially set down in contracts.
- Collect all vegetable data generated was collected by AgAware Consulting P/L.
- Prepare minor-use permit applications using the data generated as well as overseas information and submit to APVMA for assessment.
- Renew any minor-use permit permits that expired during this period.
- Monitor progress of all permit applications and keep the vegetable industry informed.
- Provide APVMA with any additional information required in relation to any permit application.
- Once the permit is issued, notify the vegetable industry by email and handouts.
- Provide the vegetable IDO's with the necessary information on permits.
- Maintain the HAL database on projects.

## **Minor-use permit applications**

Between 2005 and early 2007, 117 permit applications were submitted to APVMA for minor-use permits in various vegetable crops.

These are listed in Table 1 of the Appendices.

There applications were made up of the following categories:

- 80 new permit applications
- 1 new permit application that was also renewed
- 4 new permit applications were resubmitted after with additional data
- 6 emergency permit applications
- 26 permit renewals

The vegetable crops covered were:

- Brassica vegetables – brassicas, broccoli, Brussels sprout, cabbage, cauliflower
- Bulb vegetables – Alliums, garlic, leek, onion, shallot, spring onion
- Cucurbit vegetables – cucumber, cucurbits
- Fruiting vegetables – Asian fruiting vegetables, capsicums, eggplant, peppers, sweet corn tomato
- Herbs – coriander, parsley
- Leafy vegetables – brassica leafy vegetables, chicory, endive, lettuce, radicchio, silverbeet, spinach
- Legumes vegetables – beans, peas, snow peas, sugar snap peas
- Mushrooms
- Root vegetables – beetroot, carrot, parsnip, potato, radish, swede, turnip, sweet potato, taro
- Stem & stalk vegetables – artichoke, celery, rhubarb

The situations covered were:

- Field grown crops
- Greenhouse/Shadehouse crops
- Hydroponic grown crops
- Greenhouse/hydroponic grown crops

Some permits were not renewed for technical reasons. These are listed in Table 2 of the Appendices.

Of the 117 minor-use permit applications submitted to APVMA:

- 63 have had minor-use permits issued
- 44 are still under assessment
- To date no minor-use permit application has been rejected

The minor-use permits issued by APVMA are listed in Table 3 of the Appendices.

The 44 minor-use permit applications still with the APVMA are in various stages of assessment and are expected to be issued in the next six months. Most of these applications have had issues raised, such as; correct identification of the pest, area to be treated, resistance management strategies, Good Agricultural Practice, etc.

## **Communication**

Once AgAware is notified that a permit has been issued by APVMA, the information is circulated by email to the following people in the vegetable industry:

- Industry Development Officers
- AUSVEG
- Consultants
- Retail network
- State Departments of Primary Industries
- Agchem manufacturers

It is them up to these contacts to circulate this information to growers.



With the assistance of APVMA, every 3 months a list of all minor-use permits in vegetables is produced. This includes HAL/ AUSVEG permits and others. This list is circulated to the above industry contacts, but is also placed on the AUSVEG website and included in the “Vegetables Australia’ magazine.

Any requests for minor-use permit and general pesticide information received from the vegetable industry contacts is generated and circulated. Information requested is:

- Pesticides available (registered and permits) per specific crop
- Pesticides available (registered and permits) per state
- Pesticides available (registered and permits) per specific pest
- Pest management strategies
- Pesticide residue information per specific crop
- Minor-use requests per specific pesticide (manufacturers)

On request, media articles are prepared on specific topics for inclusion in:

- Briefing papers
- Industry magazines
- Newsletters
- e-newsletters
- Websites

### **Organisation meetings**

Many meetings were attended during the life of the project to provide information and outcomes of the project. Several grower and industry meetings were held in each state for this purpose.

Meetings were also held with the major agchem manufacturers to:

- Discuss the minor-use program in vegetable
- Seek data to support minor-use permit application
- Seek support to convert the minor-use permits to label registrations

The agchem manufacturers that have been contacted are:

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

The process of communicating with the agchem manufacturers with the purpose of converting the minor-use permits to label registrations will be on-going as manufacturers do not see this process as a vital part of their business that demands financial and staff resources.

This process continued under the project, 'AH04009 - Coordination of minor use permits for horticulture', with 'MT07029 - Managing pesticide access in horticulture', following on after AH04009.

## **Recommendations**

Although all the minor-use permit applications have been submitted to APVMA, not all associated permits have been issued. Therefore future activities are:

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

This will be supported by the project; 'MT07029 - Managing pesticide access in horticulture'.

The process has been very successful in providing legal access to pesticides for the vegetable industry. But the process that operated for pesticide access at this time was always reactionary, i.e. it was seeking permits for products and uses that were not in a planned approach with an overall aim.

The issue of a strategic approach to pesticide access was addressed by the 'Strategic Agrichemical Review Process' conducted in the project, 'AH04009 - Coordination of minor use permits for horticulture'. SARP continuing with 'MT07029 - Managing pesticide access in horticulture'.

## **Acknowledgement**

Field researchers:	Agrisearch Services, ServeAg Research
Analytical Laboratories:	Agrisearch Analytical, Agrisolutions, OMIC, NMI, DPIR Vic
Permit application preparation:	Eileen Dal Santo, Peter Dal Santo
APVMA:	Alan Norden

## APPENDICES

Table 1 – New and renewal application made for vegetable minor-use permits

Crop	Problem	Active Constituent	States	Issues
Alliums (other than onions)	Sclerotinia rot	Boscalid	all states	New application due to procymidone withdrawal
Alliums (other than onions)	Various diseases	Mancozeb	all states	New & renewal
Artichoke	Weeds	Propyzamide	all states	New
Artichoke	Various insects	Chlorpyrifos	all states	New
Asian fruiting vegetables	Various diseases	Mancozeb	all states	New
Beans & lettuce	Sclerotinia	azoxystrobin	all states	Emergency
Beans	Sclerotinia	iprodione	Cooloola & surrounding shires in Qld	Emergency
Beans (green & navy)	weeds	Metolachlor	all states	Renewal
Beetroot	selected weeds	Ethofumesate	WA	Renewal
Beetroot	Various Insects	Lambda cyhalothrin	all states	Renewal
Beetroot	Various Insects	Alpha-cypermethrin	all states	New
Beetroot	Various diseases	Chlorothalonil	all states	Renewal
Brassicas	White blister	Azoxystrobin	all states	New urgent application
Brassicas	White blister	Azoxystrobin	Tas	New – removed from consolidated application as an emergency
Brassicas	Various diseases	Mancozeb	all states	New
Brassicas	Various diseases	chlorothalonil	all states	New
Brassicas	Weeds	Phenmediphan	all states	New
Brassicas	Weeds	Oxyfluorfen	all states	New
Brassicas	Western flower thrips	abamectin	all states	New
Brassica seedlings	Downy mildew	Phosphorous acid	all states	Renewal
Brassicas & BLV	Sclerotinia rot	Boscalid	all states	New application due to procymidone withdrawal
Brassica leafy vegetables and Brussels sprouts	White blister and Downy Mildew	metalaxyl + mancozeb	all states	New - added crops, states and pests to PER8032
Brassica leafy vegetables	Weeds	Propachlor	all states	New
Brassica leafy vegetables	Grass weeds	Fluazifop	All states	New

Table 1 – New and renewal application made for vegetable minor-use permits (cont)

Crop	Problem	Active Constituent	States	Issues
Brassica leafy vegetables	weeds	Chlorthal-dimethyl	All states	New
Broccoli & cauliflower	White Blister	metalaxyl + mancozeb	Tas	Renewal of Harvest Moon permit to AUSVEG
Capsicum	Various diseases	Mancozeb	all states	New
Capsicum	Greenhouse whitefly	Beta-cyfluthrin	all states	New
Carrots	Black Rot	iprodione	SA, Vic, Tas, WA	New - resubmitted using SARDI efficacy data and Cavallaro residue data for support
Carrots	Damping off	Phosphorous acid	all states	New - add to AUSVEG PER6174 for root vegetables
Carrots	Weeds	Propachlor	All states	New
Carrots	Nematodes	Carbofuran	WA	New
Cauliflower	Leaf spots	Dimethomorph	WA	New
Cauliflower	Weeds	Clethodim	WA	New
Celery	Lightbrown apple moth	tebufenozide	all states	New
Celery	Aphids	Pymetrozine	all states	New
Celery	Aphids	Pirimicarb	all states	New
Cucumber, eggplant, herbs, ornamentals, lettuce, tomatoes, mushrooms (GH & hydro)	Fungus gnats	Bacillus thuringiensis	all states	New - urgently needed in greenhouses & hydroponics
Cucumber, eggplant, ornamentals, peppers, strawberries, tomatoes	WFT	Endosulfan	all states	New - application based on Herron data
Cucurbits	Powdery mildew	bupirimate	all states	Renewal
Cucurbits	Various insects	Methomyl	all states	New
Cucurbits	Western flower thrips	abamectin	all states	New
Eggplant	Heliothis	Methomyl	All states	Renewal
Eggplant	Western flower thrips	abamectin	all states	New

Table 1 – New and renewal application made for vegetable minor-use permits (cont)

Crop	Problem	Active Constituent	States	Issues
Eggplant, peppers, ornamental strawberries and tomatoes	Western Flower Thrips	Fipronil	all states	Renewal
Endive	Downy mildew	Metalaxyl + copper	all states	New
Garlic	Grass and broad leaf weeds	pendamethalin	all states	New - add to Aust Garlic Producers permit, PER5520
Herbs including parsley	Various Insects	permethrin	all states	Renewal
Leafy vegetables	Downy Mildew	Phosphorous acid	all states	Renewal
Leafy vegetables	Various insects	Methomyl	all states	New
Leafy vegetables	Various diseases	Mancozeb	all states	New
Leafy vegetables	Various diseases	chlorothalonil	all states	New
Leeks	Onion fly	Diazinon	all states	Renewal
Leeks	weeds	Linuron	all states	Renewal
Leeks	Onion thrips	Abamectin	all states	New - resubmit application due to age and GAP changes
Leeks	Onion thrips	Maldison	all states	New - resubmit application due to age and GAP changes
Leeks	Grass weeds	Fluazifop	All states	New
Leeks	Weeds	Ioxynil	All states	Renewal
Leeks	Weeds	Methabenzathiauron	All states	Renewal
Lettuce	Sclerotinia rot	tebuconazole	all states	Renewal
Lettuce	Weeds	Phenmediphan	all states	New
Lettuce	WFT	chlorfenapyr	all states	New
Lettuce	Western flower thrips	abamectin	all states	New
Lettuce - all types, chicory, endive & radicchio	Lettuce aphid	pymetrozine	all states	New
Onions	Onion thrips	alpha-cypermethrin	Tas	Emergency permit - Residue info from Field Fresh Tas
Parsley	Leaf spots	Propiconazole	All states	New
Parsley	Leaf spots	Dimethomorph	All states	New
Parsnip	Sclerotinia rot	Procymidone	All states	New
Parsnip	Grass weeds	Fluazifop	All states	New
Peas - green	Broadleaf weeds	bentazone	Tas only	Renewal
Peas - green	Pod blight	Carbendazim	All states	New

Table 1 – New and renewal application made for vegetable minor-use permits (cont)

Crop	Problem	Active Constituent	States	Issues
Peas - processing	Downy Mildew	Phosphorous acid	N & T	Renewal
Peas (snow, sugar snap)	Chocolate spot	Azoxystrobin	Qld	Emergency application – information from Growcom
Peas (snow, sugar snap)	Downy Mildew and botrytis	chlorothalonil	all states	Renewal
Peas (snow, sugar snap)	Mites	Oxythioquinox	all states	New
Peas (snow, sugar snap)	Powdery mildew	fenarimol	all states	New
Peas (garden, snow, sugar snap)	Botrytis & Sclerotinia	Boscalid	Qld	Emergency application – information from Growcom
Peas (garden, snow, sugar snap)	Botrytis & Sclerotinia	Cyprodinil + fludioxonil	Qld	Emergency application – information from Growcom
Peas (garden, snow, sugar snap)	Sclerotinia	iprodione	All states	New - resubmit application due to significant changes
Peas (snow, sugar snap)	Various insects	Methomyl	all states	New
Pepper & eggplant	Two spotted mites	bifenthrin	all states	Renewal as residue data not available yet
Potato	Silverleaf whitefly	imidacloprid	NSW, Qld, NT, WA	New - information supplied by Brendan Nolan QDPIF
Potato	Wingless grasshoppers and Redlegged Earth Mite	chlorpyrifos	all states	New - add to WA Potato Growers Association PER 6585
Potato	Target spot (Alternaria)	cyproconazole	Atherton Tableland Qld only	Emergency permit
Radish	White Blister	azoxystrobin	all states	Renewal
Radish	Various insects	Methomyl	all states	New
Radish	White blister	Dimethomorph	All states	New
Radish	White blister	Metalaxyl + mancozeb	all states	New
Radish, swede & turnip	Various diseases	Mancozeb	all states	New
Rhubarb	Various insects	Permethrin	All states	Renewal
Rhubarb	Grass weeds	Fluazifop	All states	New

Table 1 – New and renewal application made for vegetable minor-use permits (cont)

Crop	Problem	Active Constituent	States	Issues
Rocket	White blister	Dimethomorph	All states	New
Rocket	White blister	azoxystrobin	all states	New
Shallots	Weeds	Clopyralid	all states	New
Silverbeet	Various Insects	lambda cyhalothrin	all states	Renewal
Silverbeet	Weeds	Ethofumesate	all states	New
Silverbeet & spinach	Weeds	Phenmediphan	all states	New
Spinach	Western flower thrips	abamectin	all states	New
Spring onions and shallots	Thrips and onion seeding maggot	Diazinon	all states	Renewal
Spring onions and shallots	Downy mildew and Purple Blotch	dimethomorph	all states	Renewal
Spring onions and shallots	Weeds	Propachlor	all states	New
Spring onions & shallots	Various insects	Methomyl	all states	New
Swede	Various insects	Fipronil	all states	New
Sweet corn	Aphids	imidacloprid	all states	New - issues with IPM
Sweet potato	Weevil	Fipronil	NSW, NT, Qld, WA	New
Sweet potato	Various diseases	Thiabendazole	NSW, NT, Qld, WA	New
Sweet potato	Various diseases	Thiabendazole	NSW, NT, Qld, WA	Renewal
Sweet potato	Weeds	Oryzalin + simazine	All states	New
Taro	Weeds	Metolachlor	All states	New
Taro	Weeds	Prometryn	All states	New
Taro	Weeds	Atrazine	All states	New
Taro	Various insects	Dimethoate	All states	New
Taro	Various insects	chlorpyrifos	All states	New
Tomato	Silverleaf whitefly	pymetrozine	all states	New
Tomato	Western flower thrips	endosulfan	all states	New
Turnips & swedes	Grass weeds	Fluazifop	All states	New
Turnips & swedes	Weeds	trifluralin	All states	New

Table 2 – Existing permits that were not renewed

Crop	Problem	Active Constituent	States	Issues
Melons	Pre-emergent weeds	S-metolachlor	All states	Cancelled permit due to crop phyto problems in Qld. Requested by Syngenta.
Potatoes	Target spot	Cypronazole	Qld	Cancelled permit application due to insufficient data from Growcom
Capsicums	Various insects	Thiodicarb	All states	Cancelled permit due to poor IPM fit and data requirements



Table 3 - Minor-use permit granted

Crop	Problem	Active Constituent	PERMIT NUMBER	Expiry Date
Alliums (bulb vegetables)	Purple blotch	mancozeb	6309	30-Dec-05
alliums (not onions) & carrots	Sclerotinia	boscalid	8231	30-Jun-09
Asian fruiting vegetables	Downy Mildew, Fusarium, Anthracnose, Alternaria	mancozeb	8767	31-Mar-08
Beans	General Weeds	metolachlor-S	8206	31-Mar-08
Beans	Sclerotinia	iprodione	8653	20-Mar-08
Beans, lettuce	Sclerotinia	azoxystrobin	9845	30-Sep-07
beetroot	looper, webworm and Helicoverpa spp.	methomyl	6136	31-Mar-07
Beetroot	Jassids and aphids	pymetrozine	7530	31-Mar-10
Beetroot	weeds	ethofumesate	8305	02-Apr-09
Beetroot	Heliothis, Looper, Vege Weevil, Thrips, Rutherglen	lambda-cyhalothrin	8572	01-Sep-10
Beetroot	Botrytis, Alternaria, Cercospora & Phoma	chlorothalonil	8607	07-Jul-07
Brassica & brassica leafy vegetables	Sclerotinia	boscalid	8819	31-Oct-07
Brassica leafy vegetables	Downy Mildew & White Blister	metalaxyl-M + mancozeb	8792	31-Mar-08
Brassica leafy vegetables	Alternaria	azoxystrobin	9633	30-Jun-09
Brassica seedlings	Downy mildew	phosphorous acid	8254	30-Sep-07
Broccoli, Brussels sprout, cauliflower	White Blister & Downy Mildew	metalaxyl-M + mancozeb	8792	31-Mar-08
Capsicums	Greenhouse whitefly	beta cyfluthrin	7356	31-Jul-08
Capsicums	Anthracnose & Alternaria	mancozeb	7646	31-Dec-05
Chicory, endive, silverbeet, spinach & radicchio	Downy mildew	phosphorous acid	8186	24-Jan-10
Cucumber, eggplant & peppers	Western Flower Thrips	endosulfan	8321	30-Sep-08
Cucumber, zucchini & squash	Twospotted mite & melon thrips	abamectin	7355	31-Mar-07
Cucurbits	Helicoverpa, Cucumber Moth larvae & WFT	methomyl	8790	31-Mar-11

Table 3 - Minor-use permit granted (cont)

Crop	Problem	Active Constituent	PERMIT NUMBER	Expiry Date:
Cucurbits	Powdery mildew	bupirimate	8604	30-Jul-07
Eggplant	Heliothis	methomyl	4873	02-Dec-05
Herbs	various insects	permethrin	8605	31-Mar-09
Leeks	grass weeds	fluazifop-p	6784	31-Dec-07
Leeks	Onion Fly	diazinon	8051	31-Dec-07
Leeks	Weeds	linuron	8606	17-Nov-06
Leeks	Weeds	methabenzthia zuron	9066	31-Jul-07
Leeks	Weeds	ioxynil octanoate	9067	31-Jul-07
Lettuce	Broadleaf weeds (Potato weed/Nettles)	phenmedipham	6935	31-Dec-07
Lettuce	Lettuce aphid	pymetrozine	8523	01-Aug-08
Lettuce	Sclerotinia	tebuconazole	9841	31-Dec-08
Lettuce - hydroponic	Two-spotted mite	abamectin	9318	04-Jan-10
Lettuce (field only)	Helicoverpa, Cluster Caterpillar, WFT	methomyl	9932	29-Feb-08
Lettuce (leafy & hydroponic)	Downy mildew	phosphorous acid	7905	30-Sep-12
Lettuce, peppers, cucumber, ornamentals, eggplant, tomatoes	Western Flower Thrips	methomyl	9832	30-Sep-08
Onions	onion thrips	alpha-cypermethrin	8432	05-Feb-11
Parsnip	Sclerotinia rot	procymidone	7816	31-Dec-06
Parsnip	ryegrass, barley grass & wild oats	fluazifop-p-butyl	8960	31-Mar-09
Parsnip, radish, swede, turnip	Downy mildew, Pythium & Phytophthora	phosphorous acid	6174	02-Nov-07
Peas	General broadleaf weeds	bentazone-sodium	8602	04-Nov-10
Peas - processing	Downy mildew	phosphorous acid	8187	24-Jan-10
Peas - snow, sugar snap and garden	Botrytis & Sclerotinia	cyprodinil + fludioxonil	9289	31-Dec-08
Peas (garden)	Black Spot (Phoma spot)	chlorothalonil	7359	30-Sep-09
Peas (garden)	Sclerotinia & Botrytis (Chocolate spot)	boscalid	9288	31-Dec-08
Potato	Silverleaf whitefly, jassids & thrips	imidacloprid	9242	31-Mar-08
Radish	White Blister	azoxystrobin	8694	30-Sep-08

Table 3 - Minor-use permit granted (cont)

Crop	Problem	Active Constituent	PERMIT NUMBER	Expiry Date:
Radish, swede, turnip	Alternaria & Cercospora & WBR	mancozeb	7389	01-Jul-06
Rhubarb	GPA, Green looper, LBAM, Budworm	permethrin	9325	31-Mar-12
Silverbeet	Heliothis, Rutherglen bug, Thrips, Looper	lambda-cyhalothrin	5734	30-Jun-05
Snow & Sugar Snap peas	Western Flower Thrips	methomyl	8790	31-Mar-11
Snow Peas (greenhouse)	Downy Mildew & botrytis	chlorothalonil	8608	31-Dec-10
Snow peas and sugar snap peas	Sclerotinia & Botrytis (Chocolate spot)	boscalid	9288	31-Dec-08
Snow peas, Sugar snap peas & Garden peas	Stemphyllium & Botrytis cinerea	azoxystrobin	9290	31-Dec-08
Spring onions & shallots	Thrips and onion seedling maggot	diazinon	8570	30-Jun-08
Spring onions & shallots	Downy Mildew & Purple Blotch	dimethomorph	8585	31-Oct-08
Swedes & Turnips	Diamond back moth	fipronil	6665	31-Mar-07
Sweet potato	White Fringed Weevil	fipronil	9063	01-Dec-11
Sweet potato	Field and seed rots	thiabendazole	9228	31-Oct-08
Taro	African Black Beetle	chlorpyrifos	9694	05-Mar-12
Tomato	Silverleaf whitefly	pymetrozine	9244	31-Mar-08
Tomatoes	Western Flower Thrips	endosulfan	8321	30-Sep-08