

Nursery Production Minor Use Permit Pesticide Program

The Minor Use Pesticide program allows for pesticides (insecticides, fungicides, herbicides, plant growth regulators, etc.), that do not have a legally approved label registration, to be used in a non-registered cropping system under an authorised APVMA permit. In this Nursery Paper Queensland Industry Development Manager John McDonald explains how managing the National Minor Use Pesticide Portfolio delivers new chemistry to support on-farm plant protection management activities.

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Currently in Australia, **excluding Victoria**, if the pesticide does not have your crop or cropping system (e.g. nursery stock – non-food) registered on the label it is illegal to use that product unless a Minor Use or Emergency Permit has been issued by the Australian Pesticide & Veterinary Medicines Authority (APVMA). It is illegal to use a pesticide, with the same active ingredient as a product that is registered, if that pesticide does not have a label registration or an APVMA permit. Victoria is not included on the NGIA permits because their 'control-of-use' legislation means that a permit is not required to legalise this off-label use in Victoria.

Minor Use Permits allow industries that apply small volumes of a pesticide to legally access the product when the manufacturer/importer decides not to register the pesticide for the specific crop/cropping system. Companies have a number of parameters they apply when choosing to register a product including cost/return ratios, risk profile, usage pattern and technical issues such as resistance management and protecting a crop that is a high volume user. A pesticide company (manufacturer or importer) is going to view the cost of registration, usually in the



FIGURE 1 - Pesticide application method and crop situation must comply with label or minor use permit directions



FIGURE 2 - With large variation in nursery crops there is a need for a diverse range of options for a pest management

millions of dollars, against the financial return from an industry in assessing its viability as a registered plant protection product. Unfortunately most of the numbers do not stack up financially in favour of nursery production in Australia hence our need for Minor Use Permits.

Developing new chemistry for plant protection products costs tens of millions of dollars due to the many years of research required to understand the product's efficacy, toxicity, environmental fate and general limitations. With the registration of pesticides required in Australia, before being legally available, another level of cost is introduced as information must be supplied on worker exposure, efficacy, environmental fate and residues. Seeking registration for use in food and non-food based crops requires extensive scientific data that can increase the cost of delivering a product to market by millions of dollars more.

Under the national Nursery Products Levy (pot levy) the Industry Advisory Committee (IAC) has allocated funding over the past four years for the application and registration of Minor Use Permits (MUP) with the APVMA. This funding is provided based on project applications developed under our industry national R&D program

and submitted to Horticulture Australia Limited (HAL) through NGIA.

Fifteen MUP's have been issued for Nursery Stock (non-food) since 2008/2009 and are listed on the back page of this Nursery Paper. The following ten products have had applications drafted and submitted to the APVMA however their approval is still pending and at present can only be applied as per the existing label.

Previous to the establishment of our industry MUP program, and the NRA/APVMA, these permits were issued by a state (usually the state department of primary industries) for use within that jurisdiction under the specific state controlled registration laws. In Queensland these were known as "board approvals" and QDPI at the time held these "permits or approvals" so that industry could legally use the products that did not have a legal registration in nursery stock. In 1993 the National Registration Authority

(NRA) was created by national agreement, formed to undertake pesticide registrations nationally and do away with individual state registration processes, nullifying these state board approvals which had to be transferred to the relevant industry or cancelled. The NRA was changed to the APVMA in 2004 and at this point the nursery industry was deemed to fall outside the parameters that defined a "Minor Use Industry" and were prevented from applying for MUP's up to 2008.

From 2004 to 2008 the industry, through state peak bodies (IDO Network) and with the assistance of NGIA, we finally convinced the APVMA that as an industry we do indeed fall into the category of "Minor Use". This was based on the argument that we have different types of cropping systems (protected, shade, open, etc) plus the great diversity of crops grown (over 10 000 cultivars) throughout the environments of Australia. Furthermore based on surveys we demonstrated that while we need a large

Table 1. MUP's Pending Approval at October 2012 (not approved for use in nursery stock)

Trade Name	Active	Trade Name	Active
Regent	Fipronil	Secure	Chlorfenapyr
Movento	Spirotetramat	Ecocarb	Potassium bicarbonate
Dominex	Alpha-cypermethrin	Bioclear	Petroleum oil
Copper oxchloride	Copper oxchloride	Aero	Metiram/pyroclostrobin



FIGURE 3 - Minor use permits provide access to chemical use in situations not otherwise covered by the standard label applications

range of different plant protection products due to crop types and target pests, considering the overall use of pesticides in agriculture, we apply a minimal amount in comparison.

Based on the evidence presented the nursery industry was reinstated as a "Minor Use" crop by the APVMA in 2008 and since then we have been applying each year for a range of MUP's primarily for insecticides and fungicides.

Once a permit for a product has been issued it fundamentally becomes an extension of the approved label therefore, if using the product, the business **must**, by law, have a copy of the permit with the product (preferably at the chemical store). Having the minor use permit on-hand is vital as it has all of the applicable use instructions, critical comments for that use pattern, worker safety and application rates listed relevant to the pest/crop combination the permit applies to.

A key reason for pursuing additional minor use permits is to introduce new chemistry (in RED in Table 2) into our plant protection programs that have a different mode of action to those currently registered and in most cases are safer to use, target specific (reduced impact on beneficials) and have a lower impact on the environment.

The **Mode of Action** group, identified in brackets in Table 2, a pesticide belongs to relates to the manner in which the active ingredient targets the pest (e.g. nervous system, stomach, and reproduction) and is a highly important piece of information for growers to use in the selection of pesticides for a specific pest management program requiring rotation of different actives. In a rotation program the aim is to apply pesticides that are appropriate for the target pest in a manner that reduces the potential for the pest to establish a population resistant to any single

pesticide. The more chemical actives we use in a rotation program, that belong to different Mode of Action groups, the better the program will be with a general rule of thumb being a rotation program should have at least three actives from different Mode of Action groups. The Mode of Action group a particular product (Insecticide, Fungicide & Herbicide) belongs to is clearly identified on the product label directly under the trade name and active constituent on the front (panel) of the chemical container.

Table 2. Example of pesticide rotations

Insecticide/pest combinations

Pest	Pesticide	Pesticide	Pesticide
Mealybugs	CONFIDOR (4A)	PROCIDE (3A)	SABOTEUR (1B)
	APPLAUD (16)	SuSCon MAXI (4A)	NATRASOAP
Mites	PYRANICA (21A)	TORQUE/CALIBRE (12B/10A)	VERTIMEC (6)
	PEGASUS (12A)	ACRAMITE (2D)	NATRASOAP
Scales	BUGMASTER (1A)	SABOTEUR (1B)	CONFIDOR (4A)
	APPLAUD (16)	SuSCon MAXI (4A)	D-C-TRON Plus
Thrips	BUGMASTER (1A)	SABOTEUR (1B)	CONFIDOR (4A)
	VERTIMEC (6)	PROCIDE (3A)	SUCCESS NEO(5)
Whitefly	PROCIDE (3A)	AZAMAX (22A)	CONFIDOR (4A)
	CHESS (9B)	SuSCon MAXI (4A)	PEGASUS (12A)
	APPLAUD (16)	ADMIRAL (7C)	

(Note: 1A & 1B are similar modes of action - do not rotate)

Nursery Stock (non-food) Minor Use Permits

October 2012

As NGIA has progressed the applications for MUP's the need for various new chemistries and Mode of Action groups have been key criteria as has the need to provide industry with diversity of product. With more than 10 000 cultivars in plant production across Australia the issue of phytotoxicity (crop damage) caused by pesticides is of importance however one that is difficult to address. The cost of testing each cultivar for a potential phytotoxic reaction due to a specific pesticide is clearly prohibitive and will not be financially viable. Therefore the use of a specific product, under a MUP, for "Nursery Stock" or some other broad based title is at the grower's own risk. When introducing a new insecticide, fungicide, herbicide, etc into the production system NGIA strongly advises that you undertake sample testing of your crops to avoid potentially spraying a crop that is reactive to the product causing complete crop damage or death.

The following table identifies the MUP's that are currently in place and industry is advised to make sure they download the appropriate MUP, before applying the pesticide, from the APVMA website at www.apvma.gov.au. Click onto **Permits** and then **Search Permits** and type in the permit number, from the following, table at the '**PER**' window.

Permit #	Trade Name/Active	Target Pest/Disease	Mode of Action Group	Date Issued	Expiry Date
PER11546	Acrobat/Mancozeb (Dimethomorph & Mancozeb)	Alternaria, Anthracnose, Downey mildew & Phytophthora	Group 40/M3	27-Sept-09	31-Oct-14
PER11517	Amistar (azoxystrobin)	Downy mildew, powdery mildew, grey mould, rusts and leaf spots	Group 11	25-Nov-09	30-Nov-14
PER11553	Applaud Insecticide (buprofezin)	Mealybug, Leafhoppers, Scale and Whitefly	Group 16	24-Feb-10	30-Nov-14
PER11560	Suscon Maxi Insecticide (Imidacloprid)	Various insects	Group 4A	28-Jan-10	31-Jan-13
PER11936	Confidor 200 SC (Imidacloprid)	Propagation Nursery Stock / Silverleaf Whitefly	Group 4A	01-Mar-10	28-Feb-13
PER11971	Pegasus insecticide (Diafenthiuron)	Aphids, mites and whitefly	Group 12A	12-Aug-10	31-May-15
PER11972	Acramite Miticide (Bifenazate)	Mites	Group 2D	13-Aug-10	31-May-15
PER11973	Chess Insecticide & Fulfill Insecticide (pymetrozine)	Aphids and whitefly	Group 9B	30-Jun-10	30-Jun-15
PER12027	Coragen Insecticide (chlorantraniliprole)	Heliothis, Lightbrown apple moth, Apple looper and Soybean looper.	Group 28	30-Jun-11	31-May-15
PER12028	Ridomil Gold MZ - Mancozeb + Metalaxyl	Alternaria, Anthracnose, Septoria leaf spot & Phytophthora	Group 4/M3	30-Jun-11	31-May-15
PER12029	Avatar Insecticide (indoxacarb)	European earwig, Heliothis, Lightbrown apple moth & weevils.	Group 22A	30-Jun-11	31-May-15
PER12156	Triadimenol, Triforine, Mancozeb, Azoxystrobin, Copper oxychloride, oxycarboxin and propiconazole	Myrtle Rust (Uredo rangeli)	Various	09-Sep-10	30-Aug-13
PER12659	Admiral Insect Growth Regulator Insecticide (pyriproxyfen)	Whiteflies and Fungus gnats	Group 7C	29-Jun-11	31-May-15
PER12662	Nimrod Fungicide (Bupirimate)	Powdery Mildew	Group 8	21-Feb-12	31-Jul-16
PER12660	Switch Fungicide (Cyprodinil + Fludioxonil)	Rhizoctonia, Sclerotinia, Botrytis, Colletotrichum, Aspergillus	Group 12/9	28-May-12	31-May-15
PER12661	Pristine (Boscalid + Pyraclostrobin)/Nursery Stock/Anthracnose, Botrytis, Leaf spot, Powdery mildew	Group 11/7	30-Aug-12	31-May-15	31-May-15
PER13382	Durivo (Thiamethoxam/Chlorantraniliprole) /Nursery Stock/Lepidoptera including Diamonback Moth, Cabbage White Butterfly, Helicoverpa, Caterpillars, Loopers, Leafhoppers, Aphids, Whitefly, Bugs, Thrips & Leafrollers	Group 4A/28	28-Aug-12	31-May-15	31-May-15

Further Information

Australian Pesticides and Veterinary Medicines Authority – Agricultural permits

<http://www.apvma.gov.au/permits/agricultural/index.php>

NY07029 - Managing Pesticide Access in Horticulture

www.ngia.com.au