

APVMA review and changes to use of common cotton products

The Australian Pesticides and Veterinary Medicines Authority (APVMA) has a Chemical Review Program which can reconsider the registration of agricultural and veterinary chemicals in the marketplace if potential risks to safety and performance have been identified. The following actives that are registered for use in cotton are currently under review:

- 2,4 D Current and Spray Drift
- Chlorpyrifos
- Diazinon
- Dimethoate
- Diquat
- Fipronil
- MCPA - Spray Drift
- Methidathion
- Omethoate
- Paraquat

Refer to www.apvma.gov.au for more information about the chemical review program including all current, completed and nominated chemical reviews.

The following information is provided to highlight some new restrictions on products used in cotton, however as the APVMA continues to review registration conditions refer to www.apvma.gov.au for the most up to date information.

Diuron restrictions

In 2002 the APVMA began a review of diuron because of environmental and human health concerns, specifically regarding the potential for diuron to contaminate the marine environment through agricultural runoff. Based on the outcomes of the diuron review significant changes to the way diuron products can be used have been made. **Refer to the label and always follow label direction.**

Restrictions include:

- DO NOT apply more than 1.8 kilograms of diuron active per hectare in any 12 month period.
- DO NOT use in cotton UNLESS ALL irrigation tailwater and/or up to 25 mm rainfall can be captured and held on farm.
- DO NOT use in water-logged areas.
- DO NOT apply if greater than 50 mm rainfall is expected within 3 days of application.
- DO NOT irrigate within 3 days of application.
- DO NOT apply to fields where the slope exceeds 3%.
- DO NOT spot spray more than 5% of total farm area.
- DO NOT apply more than once per calendar year.
- DO NOT replant treated areas within 2 years of application of diuron except when otherwise stated on label. Refer to label for further replant restrictions.
- Do not use in non-crop areas. Uses no longer permitted include driveways, paths, lanes, drains, ditches, fence lines, car parks, tennis courts and non-crop areas.
- DO NOT use in irrigation channels or drains UNLESS ALL irrigation tailwater and rainfall can be captured and held on farm.

Spray drift restraints

- DO NOT apply by air.
- DO NOT apply with spray droplets smaller than COARSE spray droplet size category according to nozzle manufacturer specifications that refer to the ASAE S572 Standard or the BCPC Guideline.
- Users of this product MUST make an accurate written record of the details of each spray application within 24 hours following application and KEEP this record for a minimum of 2 years.
- MANDATORY NO-SPRAY ZONES.
- DO NOT apply when there is non-target vegetation downwind from the application area and within the mandatory no-spray zones. For cotton terrestrial downwind buffer zone is 200m.
- DO NOT apply when there are aquatic and wetland areas including aquacultural ponds, surface streams and rivers downwind from the application area and within the mandatory no-spray zones. For cotton aquatic downwind buffer zone is 100m.

Dimethoate restrictions

On 6 October 2011 the APVMA suspended the use of dimethoate on a number of food crops due to potential dietary risks. The suspension period has now been extended – refer to www.apvma.gov.au to 5 October 2013. Under this suspension, dimethoate can still be used in cotton under permit PER13155 with the following restrictions:

- DO NOT harvest for 14 days after application.
- DO NOT feed cotton fodder, stubble or trash to livestock.

Refer to <http://www.apvma.gov.au/products/review/current/dimethoate.php> for the most recent status on dimethoate usage.

Cancellation of 2,4-D High Volatile Esters registration

As part of the ongoing review of 2,4-D, the Australian Pesticides and Veterinary Medicines Authority (APVMA) has determined the risks of the use of 2,4-D HVE products under the suspended label instructions are unacceptable and cannot be mitigated. The decision means:

- Supply of the cancelled 2,4-D HVE active constituent is to cease immediately (21 August 2013).
- From 31 August 2013 the supply of product containing 2,4-D HVE manufactured up to 21 August 2013 is to cease.
- People can use products they have already purchased up until 31 August 2014 under the same permit instructions (PER14329) which restricts use to winter only and under strict conditions.
- Use of these products after 31 August 2014 will be illegal.

Refer to www.apvma.gov.au/products/review/current/2_4_d.php for the most recent status of 2,4-D review.

Neonicotinoid review

In August 2012 APVMA commenced a study to look at the use of neonicotinoid insecticides (or 'neonics') in Australia to see if they present more of a risk to honey bee health than other pesticides that have been in use for many years. The APVMA preliminary study of the science will include consideration of the European Food Safety Authority risk assessments of three neonicotinoids (clothianidin, imidacloprid and thiamethoxam) that were part of the European Commission decision to suspend for two years (from 1 December 2013) the use of neonicotinoid insecticides on flowering crops such as corn, canola and sunflowers and cotton.

Refer to page 151 for more information on protecting bees.

Fipronil review

The APVMA commenced the review of fipronil in September 2003, over concerns over toxicity, primarily related to skin irritation and induction of skin sensitisation, but also the potential for fipronil to form toxic photodegradation products,

occupational health and safety issues, animal safety, and the adequacy of label instructions. In 2007 fipronil was nominated as a priority 1 chemical for environmental review, following the identification of new information, considered by international regulatory authorities (primarily the European Food Safety Authority in 2006), showing that fipronil and its metabolites are very highly toxic to organisms in the environment, particularly aquatic and terrestrial insects.

The APVMA are reviewing the following environmental aspects of product registrations for fipronil including, but not limited to:

- Aquatic degradation.
- Persistence in environmental media (soil, water and sediment).
- Partitioning in the environment e.g. deposition, adsorption.
- Toxicity to fish and aquatic invertebrates, sediment organisms, bees and non-target arthropods.

Refer to page 151 for more information on protecting bees.



The cotton growing environment is a high risk environment for bees. 'BEE Aware' by using the bee tab of the Cottoninfo Cotton Calendar. Refer to page 151 for more information on protecting bees. (Photo: Lance Pendergast, DAFF QLD)