



Note Number: AG1348

Published: March 2008

Updated: September 2008

Should You Be Using Bifenthrin on Apples?

Introduction

The ongoing drought has placed a financial strain on many Victorian apple growers, who are searching for cheaper production inputs. Some apple growers have chosen to use products containing bifenthrin to control pests that the products are not registered to control. This use is classified as off-label use.

While bifenthrin may be a cheaper chemical option, the use has seen a rise in the number of maximum residue limit (MRL) violations in apples grown during the 2006-07 season. If these violations continue to occur, access to domestic and international markets may be jeopardised for all Victorian apple growers.

Before using a chemical off-label, consider whether your actions will place your produce, as well as the Victorian apple industry's reputation at risk.

Maximum Residue Limits (MRLs)

The MRL is the maximum amount of a chemical that is permitted to be present in produce when it is sold for consumption. The Australian MRL for bifenthrin in apples is 0.05mg/kg, whilst the MRL for pears is set much higher at 0.5mg/kg.

The large difference between the two MRLs is linked to their registered uses. Bifenthrin is only registered for use on apples during the blossoming period, unlike pears, which are treated while bearing fruit.

Off-label use

As the majority of bifenthrin products are Schedule 6 Poisons, they can be used off-label in Victoria provided that:

- the maximum label rate is not exceeded;
- the label frequency is not exceeded; and
- all specific label statements (e.g. DO NOT statements) are complied with.

However, when deciding to use a chemical off-label, you must evaluate risks associated with the proposed use, in particular,

the potential for unacceptable chemical residues to occur. As the MRL for bifenthrin in apples is so low, any off-label use is likely to result in unacceptable chemical residues.

See Agriculture Note AG1214 "Off-label Chemical Use in Victoria" for a more detailed explanation of the permitted off-label chemical uses in Victoria.

Remember, if you decide to use a chemical off-label, you as the user are responsible for any chemical residue and efficacy issues.

Implications

Resistance management

Inappropriate use of synthetic pyrethroids, such as bifenthrin, can lead to chemical resistance in the targeted pest species. This may have serious consequences, as bifenthrin and other Group 3A chemicals may become less effective, reducing the chemical control options available.

Contaminated Agricultural Produce Notices

Growers with apples containing bifenthrin residues above the MRL may be served with a Contaminated Agricultural Produce Notice by DPI, which may prohibit the sale or movement of the produce until an acceptable residue status is achieved.

While this has obvious financial implications for growers, there are also consequences for packhouses and coolstore operators storing the produce. As a consequence of storing the fruit, coolstores and packhouses may be served with a Contaminated Agricultural Produce Notice, which may require them to store the fruit for longer than anticipated. If they have taken ownership of the fruit, then those operators may bear any associated financial impact.

Restricted trade

If Victorian growers continue to produce apples with unacceptable chemical residues, there could also be serious trade implications for the apple industry. Chemical residue violations have the potential to disrupt trade, and permanently shut growers out of markets – a situation we all want to avoid.

Providing chemical use advice

Care must be taken when providing chemical use advice, particularly advice that is contrary to the information stated on the chemical product label. Some forms of advice may cause the advisor to breach the *Agricultural and Veterinary Chemicals (Control of Use) Act 1992*.

People who provide chemical use advice must not make any statement or provide any advice about a chemical product or its use that is false or misleading, and is likely to cause a person who relies on the advice to:

- a) commit an offence under this Act or its regulations (e.g. advice to use a chemical at an application rate that exceeds the maximum rate stated on the label); or
- b) contaminate stock or agricultural produce (e.g. advise to use a chemical on a food crop which is not stated on the label and as a result, the produce exceeds the MRL for the chemical); or
- c) injuriously affect plants that are to be applied with the chemical product (e.g. advice to use a chemical in a situation not stated on the product label and the crop is damaged as a result of the application).

Resellers and agronomists are reminded that they have a duty of care to ensure any chemical use advice they provide, especially any off-label advice is accurate, reliable and legal.

Further References

- DPI Chemical Standards website - www.dpi.vic.gov.au/chemicalstandards
- Food Standards Australia and New Zealand website - www.foodstandards.gov.au
- DPI Chemical Standards Officers

North West

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- Chemical manufacturers
- Chemical resellers and agronomists

Acknowledgements

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Steven Field, Farm Services Victoria, Tatura. September 2008.

ISSN 1329-8062

Published and Authorised by: Department of Primary Industries
1 Spring Street
Melbourne, Victoria

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