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Chemical (pesticide) controls

Introduction

We have briefly mentioned the history of pesticide use in agriculture in earlier chapters. The change in recent years has been the development of pesticides that are more selective in what they kill. By this we do not mean just that they are better on some pests than other pests (which they usually are), but that they do not kill at least some types of beneficial species of insects or mites. As described in Chapter 2, chemicals in an IPM strategy are the support tools, not the primary control tool. Pesticides are chosen not only for their effect on pests, or their cost, but because of the effect they have on beneficial species.

The legal registration of pesticides rests with the states, although there is a national registration authority. That means that in Victoria a farmer can decide to use an insecticide called 'Success' or 'Entrust' to kill caterpillars in canola or wheat but it would be illegal for a farmer in New South Wales to do the same unless there is a permit.

The pesticides are registered for certain pests in certain crops and in NSW that is all they are legally to be used for. However, in Victoria a farmer can use the pesticides in other situations at his own liability (that is, he cannot sue the chemical company if it does not work). 'Entrust' is a product that organic farmers can use and has very little effect on beneficial species, non-target species or humans, birds or fish. However, in NSW this product is not registered for use on broad-acre crops so it cannot be used by law.

Growers in NSW can use a range of synthetic pyrethroids or organophosphates that are non-selective, toxic to a wide range of animals (fish, birds or mammals)