

# Natural Pyrethrum gives same-day control of crop insect pests

**Natural pyrethrum is finding favour with Organic growers... with good reason. It works!**

**If an insect can be hit by a droplet or three of the spray, they die. In minutes.**

There is virtually no residue. Spraying late in the afternoon will give the best results as the pyrethrum will be effective until sunlight destroys it next day. This means hiding insects have more chance to come in contact with it overnight...and be killed. There is only a 1-day withholding period set by the National Registration Authority.

## **Cost**

The use of piperonyl butoxide (PBO) in combination with natural pyrethrum was approved in 2000. Pyrethrum was always permitted but it is very expensive to use on its own. In theoretical terms, if it takes a level of say 10 to kill an insect with straight pyrethrum, when PBO is added, the level required drops to say, 2- 3, which lowers the cost very significantly.

**Now for instance, a 15 litre knapsack full costs less than \$3. And, a 1000 litre tank costs about \$97.50.**

It doesn't take much mental arithmetic to work out if the crop area you can treat with 1000 litres will produce an extra \$97.50 worth of harvest once the insects have been eliminated. Even if you have to do the crop twice, the benefits should far outweigh the costs.

## **Examples**

A **tomato** grower at Bangalow on the NSW North Coast had so much trouble with **whitefly** he was almost considering turning his 'igloo' into a machinery shed. He'd pulled out a couple of rows of tomatoes and the ones still struggling were about half the size (bush and fruit) of those growing outside just 20 metres away. About \$50 worth of Py-Bo turned the situation around, eliminating the whitefly problem.

A **linseed** crop on the Darling downs was under stress from lack of rain and consequently the **heliiothis** caterpillars were devouring around 5-10% of what heads were left overnight. For just under \$15/ha the grower was able to eliminate the pests within an hour or so and he will get a harvest instead of ploughing it in. Ladybirds, which were numerous weeks before, did not control the pests and only two were seen at the time of spraying.

**Heliiothis, monoleptas and loopers** were all attacking a crop of **soybeans** and had destroyed flowers and pods. Boom-sprayed at 400 litres per hectare, the insects were killed. Luckily, secondary flowering did occur and a yield of around 2 tonne/ha was taken off. Not as good as 3-4 tonne, but very worthwhile under the circumstances. The grower and his neighbours are using again, but earlier, this season.

**Olives** at Texas in Queensland were being sucked dry by **lacewings** to the extent the leaves were not doing the photosynthesis job to fill out the fruit. Instead of a crop worth between \$20-\$30 a tree, the grower was only expecting around \$10 a tree.

Using a 1500 litre tank and orchard blower, he treated over 2000 trees at 1.7 litres a tree... 22.5 cents each tree.

**Avocado** trees have been treated with an orchard blower applying around 4 litres a tree... 55 cents... to control fruit **spotting bugs and monoleptas**.

**Broccoli, basil, lettuce, tomatoes, capsicum, potatoes, melons and pumpkins** are attacked by anything from **aphids, thrips, bugs, caterpillars of various sorts and grasshoppers**. Treatment by knapsack (\$3 a fill) or boom spraying has killed pest populations in minutes. If necessary, fruit and vegetables can be harvested the morning after the evening spray.

### **Compatibility**

Growers who use a foliar fertiliser can confidently mix the fertiliser and the Py-Bo together and save application costs.

As usual, mix up only as much as is needed to do the job. It's not good policy to apply solution kept overnight without adding more concentrate.

The concentrate will keep for years in its black bottle and stored in the shed.

### **Beneficials**

Pyrethrum does not discriminate. However, bees and parasitic wasps are repelled by very low levels of pyrethrum. They will not come near a treated crop until the pyrethrum is indiscernible... later the day after treatment.

If a crop is severely attacked and the grower's pocket is threatened, there is no hope that ladybirds, wasps, assassin bugs, fungus or bacteria are going to make a significant difference in time to save the situation. This is where organic growers must make a judgement. "Last resort" is a subjective decision that is sometimes left too late. None of the growers mentioned above will wait so long next time.

### **Safety**

Pyrethrum is of very low threat to mammals because it is detoxified so rapidly in warm-blooded systems. Centuries ago the Chinese used it as a treatment for stomach worms. It was dusted all over troops and prisoners in the second world war to kill fleas and lice and reduce typhus epidemics.

Not that you should ignore all forms of protection and common sense. If you handle the concentrate or the spray and then touch your lips, nasal membranes or eyes, there will be a numbness and some discomfort. It makes some people sneeze. If you are driving an open tractor, at least wear a face and nose mask to stop inhaling the fine droplets. Wash with soap and water when finished.

### **Wheredoyagettit?**

The pyrethrum/pbo combination is available in most garden shops and some grower's co-ops. Most of them are only 4g/L pyrethrum. Pestech Australia are BFA Members and sell an 80g/L formulation (20 times stronger and at a 1:6 ratio) especially for serious growers but they only deal direct (1800 12345 7) The registered rate of dilution is 1 ml per litre of water and the treatment costs and examples given in this article are based on their product called Py-Bo.

Please Phone Ion Staunton at any time of the day or early evening to ask for specific advice on your crop and insect/mite pest... **1800 12345 7**