SUBMISSION to "Inquiry into the implications of the use of Fenthion on Australia's horticultural industry".

We are 'stone fruit' growers on the Far North Coast of NSW. Being a subtropical area Queensland Fruit Fly is our major problem in growing fruit. The current restrictions on the use of Fenthion have reduced our yields of marketable fruit in 2013 by an estimated 20% to 50%. This means that we will not have covered our costs let alone make a profit which means our enterprise is unsustainable and will have to close unless a satisfactory alternative for fruit fly control is found.

Like most if not all food producers it is our desire to produce quality and healthy food.

Why have these restrictions been placed on Fenthion? Three reasons have been given:-

- 1) Health of the consumer
- 2) Health of the worker
- 3) Health of the environment

Each of these points will be addressed below.

1) Health of the consumer.

Fenthion has been in use for about 50 years with no known health impacts so why should it now cause health impacts. In that time spray technology has dramatically improved so that spray coverage is far more accurate. With increased knowledge and Quality Assurance programs, with regular residue testing, has meant that there is now a verifiable monitoring of residues. Our own residue testing over 12 years has shown that on 6 occasions there was no detectable residue and the other 6 years the residue level was below 20% of the Maximum Residue Limit (MRL). In 2013 our residue in peaches was 0.12 mg/kg or just 6% of the lower MRL of 2.0 mg/kg.

2) Health of workers

There is no evidence that I know of where the spray operator has been impacted by spraying Fenthion. Again with advances in protective equipment the operator should be adequately protected. No spraying should be carried out when other unprotected people are present or when spray drift can be an issue.

There is no known evidence of any adverse impacts on workers who enter the orchard after spraying.

3) Health of the environment

To meet Interstate certification arrangements (ICA) we were required to spray at weekly intervals from 6 weeks before harvest and continue through the harvest period. Despite this weekly spraying for 12+ weeks our orchard is a biodiversity hotspot with:-

- Spiders everywhere (my wife's phobia)
- Small frogs in the trees (my phobia)
- Lizards living in the trees (frightening the workers)
- Birds' nests in the fruit trees

- Blue Wrens and other birds bouncing around the ground while we work
- Rabbits and hares hopping around
- Even a wallaby has found a hole and comes in to graze
- Echidnas passing through
- Worms in the soil
- Snakes (including rare and endangered white crown snakes) are regularly seen
- Active termite damage to the fruit trees (I wish they were dead)

Alternative Methods of Controlling Fruit Flies

In 2013 with the changes to the use of Fenthion with the long withholding periods (WHP) we used the recommended alternative which was trapping and baiting. Despite our orchard being isolated from other orchards (decreasing the infection pressure) this was only partially successful and resulted in big losses which are unsustainable.

The stings from the fruit fly became a source of brown rot which required considerable use of fungicides. The restricted use of fenthion (pre season only) resulted in a higher use of total chemicals which is undesirable both from cost and potential for residues.

Alternative Sources of Fresh Fruit

If we cannot sustainably produce the fresh fruit in Australia the only alternative is to import it which results in two issues:-

- Loss of Australian jobs and income to the farmer and associated industries
- Imported fruit does not have to meet the same Quality Assurance standards as Australian produced fruit and may even be sprayed with Fenthion

Neither of these issues is desirable and/or acceptable

Options for Consideration

In the last year the MRL has been reduced from 5.0 mg/kg to 2.0 mg/kg which have dramatically increased the safety margin. It is also necessary for any alternative strategy to have no more than a 3 day WHP.

Spray regulations require farmers to follow 'label directions'. The label states that we must use 75ml of Fenthion per 100 litres but it does not specify how many litres can be spayed per hectare so we can still comply with label directions yet put on very different amounts of chemical per hectare. Label directions should be modified to state the maximum amount of chemical per hectare. My spray program involved about 1300 litres (1 litre of Fenthion) per hectare while it appears from experiments (unscientific) that 650 litres (500ml of Fenthion) per hectare would be sufficient for control of Fruit fly which would cut the amount of actual chemical in half.

Government regulations required us to spray every week starting 6 weeks prior to harvest if we were to meet ICA conditions to send fruit to interstate markets. It is possible that spraying each week may not be necessary to control fruit fly thus the potential to reduce seasonal spray volumes.

It is the outcome (low or nil residue levels) which should be important not the method used. From personal experience that new MRL can easily be met with the continued use of Fenthion with a 3 day WHP. Methods used can be modified to meet the desired outcome. It is important to remember that the high use (higher than probably necessary for the control of fruit fly) of Fenthion was to meet Government requirements (ICA arrangements and label directions)

Research work for other purposes showed that you only needed 40% of a chemical on peaches (fur on skin) as compared to nectarines (smooth skin) to achieve the same results. This is supported by peaches recording higher residue levels than nectarines. At present the label directions for chemical concentration in sprays is the same for peaches and nectarines. It is suggested that rather than banning Fenthion use on Peaches that the label direction be altered so that the spray concentration on peaches be say 50% of that for nectarines.

From our personal experience it appears that the altering the amount of Fenthion used per hectare and the frequency of use will achieve the outcome of acceptable low residue levels and control of fruit fly. This can be done without banning Fenthion use on peaches or altering the 3day WHP on both peaches and nectarines. We have demonstrated already that we can meet the MRL of 2 before the regulations were changed. What we are suggesting is to reduce total Fenthion use resulting in further reducing residue level while maintaining satisfactory fruit fly control. This results in a win for everyone.

REMEMBER IT IS THE OUTCOME WHICH IS IMPORTANT NOT THE METHOD.

Recommendations

1) That the use of Fenthion for Fruit Fly control be allowed with the following conditions:-

a) MRL's of 2.0 mg/kg be met

b) 3 day WHP be maintained

c) Maximum amount of Fenthion applied (per application) per hectare be 500ml for nectarines and 250ml for peaches.

d) Maximum of 1 application per week

2) That the Federal government urgently provides funds to test practical and effective alternatives including alternate regimes for the continued use of Fenthion.

3) That in future no changes to the use of chemicals are introduced without practical and effective alternatives being established.

Trevor Wilson

For TJ & KJ Wilson