

110623

submission@epa.govt.nz

Vera van der Voorden  
209 Ohautira Road  
Te Uku RD1  
Raglan

vera.raglan@xtra.co.nz

## Submission on modified reassessment of certain OPC substances - APP202142

The Environmental Protection Authority is calling for submissions on an application to review and implement appropriate non-contact periods for certain organophosphate or carbamate plant protection substances, in order to protect bees and other insect pollinators against adverse effects arising from post-application exposure to substances containing acephate, dimethoate, methamidophos, methomyl or oxamyl as active ingredients.

The applicant is the Environmental Protection Agency itself, one wonders what evidence and concerns have prompted this application.

That the EPA is now proposing to reintroduce restrictions on use, is to me indication of the scant willingness of handlers to self-regulate and growing international evidence that OPC substances are far more harmful than first thought.

If it is as the application states that it is in order to protect bees and other pollinators from adverse effects post application then why not ban or largely inhibit the use of these substances.

The applicant themselves say that there is significant information available regarding the devastating effects on beneficial insects especially bees. Accordingly I believe this application by the EPA is not taking the matter of protection far enough.

A prime example is the analysis of Dimethoate which leads to the conclusion that the reintroduction of a 7 day control is protection enough.

At a time when worldwide bee populations are at an all-time low the fact your research showed that at 14 days there was still a 10% mortality rate is surely a serious indicator that the period needs to be extended. Not only were the bees still dying but egg production was seriously reduced even further down the track.

That bee populations are at global lows and maybe irrecoverable should be of concern to every living person. I think a serious shift in thinking needs to occur.

Because bees are small creatures they are given little consideration. If bees were the size of cattle beasts and a whole farm full were poisoned there would be huge outcry. An example of human reaction to mass deaths of animals was foot and mouth or mad cow disease.

Disease or chemical poisoning aside, if worldwide loss of large farmed animals were to occur at the same rate as declining bee populations it would be of huge concern purely because death of a larger animal makes a bigger impression than that of a small insect. A big farm animal is therefore given more value than a small insect.

This unintended discrimination veils the fact that the food supply of the human and many other species rely on bees. We can survive without cattle, we can't survive without bees.

Seen in this light surely our pollinators deserve more positive action and protection than this application is giving.

The major problem with the new controls in this application is that unlike laboratory situations or controlled field experiments, beekeepers are not at their hives daily, thus do not have immediate information, and in the case of systemic poisoning evidence is not immediate. They rightly have huge concerns because by the time they find their destroyed hives it will be almost impossible to trace back the culprit even after identifying the systemic action of an insecticide being the cause.

The persons applying the product also have this information and have shown inadequate regard for the survival of these beneficial species. If the handlers of these products have not through the media picked up on the decimating effects these organophosphate substances are having on our beneficial species and the world wide outcry at the outrage, then information and instructions printed on the containers provided by the manufacturers of the products should provide warning enough. It is not acceptable that one industry can ride rough shod on the other or be so blinkered about the effects their sprays are having on ecosystems.

In fact manufacturers while somewhat downplaying negative impacts, have acknowledged the systemic effects which last over extended periods and have accepted that controls need to be put in place. Manufacturers are however not a regulatory body.

This is the thrust of my argument based on years working as a seasonal worker in the horticultural sector, and persuasive anecdotal evidence from others recently engaged in horticultural and farming practices.

One can put in all the guidelines but without educating and changing the attitude of the end user our pollinators will continue to die at alarming rates.

Let me tell you that every one of my bosses and their managers were scathing of advice on handling toxic products

They were careless with the mixing and measuring.

Although available most did not wear adequate protective clothing because they were of the opinion that the toxins were not really toxic and subsequently found it easy to be indifferent and disregard withholding periods.

In my experience the protocols required for export markets were sometimes circumvented by belatedly contriving records.

Growers were resentful of requirements around record keeping and observance of withholding periods.

Their whole attitude was one of deliberate rebellious carelessness.

Our populations need to be reminded that our human species is dependent on a healthy biodiversity of which bees are just a small part; that continued attack and destruction of a species which plays an integral role in our ability to grow food for an increasing population is not acceptable any longer.

This application is toothless. Without putting tools in place which enable to police or prosecute those guilty of carelessly killing off our pollinators, the prevailing attitude will continue and the beneficial insects will continue to die.

Not only will this affect the viability of the beekeeping industry causing job losses and reduction of export dollars but will have the disturbing effect of diminishing our global responsibility and ability to feed ever-growing populations.

The interconnectivity principle does not only demand we look at the benefits of a harmonious horticulture/farming/ beekeeping industry in New Zealand it also demands we observe the global situation.

We are on a “one off planet Earth” which is under huge pressure due to climate change, loss of biodiversity, the inability of species to respond and evolve fast enough to survive, growing human populations, declining resources, desertification of once productive farmlands, loss of potable waters, all due to pollutants.

The EPA must be in possession of knowledge and evidence which has given rise to this reassessment.

As such they have a duty to create legislative frameworks which demand adherence to more cautious farming practices in line with worldwide calls to ensure our precious food resources are treated respectfully and responsibly in a world where climate change stresses and the loss of biodiversity, is of growing concern. Loss of bee habitat and natural food sources is already affecting our bee populations, as is the widespread practice of denuding the countryside in favour of large monocultural dairy industry.

As well as anecdotal evidence from bee-keepers, research is mounting that OPC substances pose serious risks to bee populations, our whole economy and ecology would be adversely affected if bee numbers were to decline steeply.

Our bees are already in a fragile state, with weakened immune systems, thanks to the Varroa mite.

These chemicals have already been through a reassessment process and it is my understanding that the main potentially affected party the NBA did not submit at the time because they wrongly assumed that there was to be a phasing out of these chemicals. Disastrously however what happened was that the EPA removed the controls (with regard to bees) –

Much wiser restrictions had previous controls restricting spraying from 7 days before the plant flowered until after the flowers had finished thus preventing bees from getting a ‘mouthful’ of toxic nectar. This however was only as effective as the goodwill of the farmer, policing falling short of the desired outcomes.

The problem with this thinking is that bees accumulate small traces of toxins over a period of days/weeks while the chemical is active in the plant. This kills bees over an extended period, the deaths not being immediately evident and perhaps therefore not associated with the application of the carbamate plant protection substances.

It would be potentially disastrous to proceed with the ‘new’ controls because by the time the beekeeping industry ‘twigged’ that the systemic chemicals were the problem there could be too many hives damaged notwithstanding considerable amount of effort taken to identify the cause; inadequate controls of a chemical specifically designed to extend the killing period of an insecticide by the ‘systemic’ action of the chemical.

This document does not offer solutions to the problem of wanton disregard of improper use of the OPC’s.

The particular organophosphate of largest concern is Dimethoate marketed as Dimezyl 40 EC, Prefecthion S and Rogor E (very dangerous to bees)

But I reiterate that in the light of evidence which you must have judging from the research as per appendices to the application, and evidence from serious international research, the proposed measures in this application do not go far enough to protect our vital pollinators, nor the health of our beekeeping industry.

I recommend annual surveys of bee populations in coordination with the NBA to assess whether our bee populations are declining.

The reason for annual survey is to be able to respond urgently and more proactively to any further decline.

I recommend the planning and implementation of a long term strategy which will improve the health of our bees. Perhaps as more land is denuded for farming each farmer would be required to plant bee friendly trees. This could work alongside the call for farmers to create shade for their animals, and the call for farmers to riparian plant.

We need to ensure that farming and horticulture work in harmony to ensure the protection of bees to ensure mutually beneficial outcomes