



SUBMISSION FORM



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Send by post to: Environmental Protection Authority, Private Bag 63002, Wellington 6140

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Once your submission has been received the submission becomes a public document and may be made publicly available to anyone who requests it. You may request that your contact details be kept confidential, but your name, organisation and your submission itself will become a public document.

Submission on application number:	APP202142
Name of submitter or contact for joint submission:	Paul Havemann
Organisation name (if on behalf of an organisation):	NA
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I wish to keep my contact details confidential

The EPA will deal with any personal information you supply in your submission in accordance with the Privacy Act 1993. We will use your contact details for the purposes of processing the application that it relates to (or in exceptional situations for other reasons permitted under the Privacy Act 1993). Where your submission is made publicly available, your contact details will be removed only if you have indicated this as your preference in the tick box above. We may also use your contact details for the purpose of requesting your participation in customer surveys.

The EPA is likely to post your submission on its website at www.epa.govt.nz. We also may make your submission available in response to a request under the Official Information Act 1982.

- I support the application
- I oppose the application
- I neither support or oppose the application

The reasons for making my submission are¹:

Pollination is a priceless and irreplaceable ecosystem system service and hence of enormous value to human beings but it is not a 'free good' but instead requires urgent nurturing. This situation has been recognised since the 1990s e.g. by the UN CBD's International Pollinator Initiative and regional initiatives, currently the African, Brazilian, European and North American initiatives. NZ is a party to the CBD but there does not appear to be similar activity in Oceania which includes New Zealand. This is an alarming lack of initiative for a region and a state so fundamentally dependent on agriculture!

see Janet N Abramovitz 'Putting a value on Nature's "Free" Services' World Watch (1998); Convention on Biological Diversity < <http://www.cbd.int/agro/pollinator.shtml> >

Pollution caused by unsustainable development involving the use of pesticides like DDT has long been threatening the carrying capacity of the Earth through the destruction and degradation of critical ecosystems ;

see Rachel Carson Silent Spring 1962

In the USA data on the decline of pollinator populations and the link substances such as, for instance organophosphorous and carbamates illustrates the catastrophic impacts these substances have on pollinators. To quote Marion Ellis :

'Despite the dependence on honey bees for the pollination of crops in the USA, colony numbers have declined by 45% over the past 60 years (NAS, 2007). Most honey bee losses from 1966-1979 were attributable to organochlorine, organophosphorus, carbamate, and pyrethroid pesticide exposure. Efforts to restrict pesticide application during bloom provided some relief; however, the residual activity of some pesticides was never effectively addressed. Colony losses were especially severe from 1981 to 2005 with a drop from 4.2 million to 2.4 million, although some of the decrease is attributable to changes in how colony numbers were estimated.'

see Johnson, R.M., M.D. Ellis, C. Mullin, M. Frazier. 2010. Pesticides and honey bee toxicity - USA. Invited review. Apidologie. DOI: 10.1051/apdio/2110018 at < <http://www.extension.org/pages/27967/pesticides-applied-to-crops-and-honey-bee-toxicity#.VBdneS6SzBe> >

Sadly present application (APP 202142) though well intentioned is merely tinkering with 'controls' and is doomed to perpetuate this process.

Further climate change is now severely impacting on the ecosystems necessary for bees and other pollinators to survive and impairing their capacity to deliver pollination as a basic ecosystem service upon which human life depends.

see Emily Gosden 'Bees and the Crops they pollinate are at risk from climate change' The Telegraph 29 Mar 2014

at <http://www.telegraph.co.uk/earth/earthnews/10730667/Bees-and-the-crops-they-pollinate-are-at-risk-from-climate-change-IPCC-report-to-warn.html>

Climate change is likely to interrupt the mutualistic synchrony between plants and pollinators upon which both depend and in turn so does the human food supply. Precise knowledge about these phenomena is lacking:

see Kjohl, Nielsen and Stenseth Potential Effects of Climate Change on Crop Pollination (2011) at http://www.fao.org/fileadmin/templates/agphome/documents/Biodiversity-pollination/Climate_Pollination_17_web__2_.pdf.

Hence extreme caution is required concerning any threat to pollinator populations.

Up to ninety percent (90%) of all flowering plants require pollinators to survive. In the USA , for instance , one third of the agriculture that provisions essential parts of the human food chain relies on pollination by honeybees;

¹ Further information can be appended to your submission, if you are sending this submission electronically and attaching a file we accept the following formats – Microsoft Word, Text, PDF, ZIP, JPEG and JPG. The file must be not more than 8Mb.

see Centre for Food Safety Food & Climate : connecting the dots, choosing a way forward at < http://www.centerforfoodsafety.org/files/foodclimate_med_32825.pdf >

Pollination is a basic ecosystem service. The slow genocide of pollinators that is occurring worldwide, unless addressed by protecting human security, e.g the food supply , will usher in an unimaginable global food crisis and associated violent conflict

see IPCC 5 th Annual Review : Summary for Policy Makers (2014) 20-21 at < https://ipcc-wg2.gov/AR5/images/uploads/IPCC_WG2AR5_SPM_Approved.pdf >

The US President's Cancer panel found that true burden of environmentally induced cancer, e.g. from pesticides is greatly under estimated;

see Susanne Reuben Reducing Environmental Cancer Risk : What We Can Do Now (2010) at <http://deainfo.nci.nih.gov/advisory/pcp/annualReports/pcp08-09rpt/PCP_Report_08-09_508.pdf;

and Beyond Pesticides 'Daily News Blog' 11 May 2010 at , < <http://www.beyondpesticides.org/dailynewsblog/?p=3593> >

Some estimates suggest 40-70 % of human cancers are currently linked to chemicals introduced into the environment often in the quest for profit from food production and processing. Insecticides or 'plant protection substances' are among the contributors to the modern global epidemic.

Therefore, based upon what is at stake in terms of known harms and their ecocidal consequences, the precautionary approach should be followed as provided for under Section 7, HSNO Act 1996. The precautionary approach referred to derives from Principle 15 UN Rio Declaration 1992 to which NZ is a signatory. Principle 15 states that:

'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation'.

There are well known risks of 'irreversible damage' from these substances but there is no scientific certainty that it is possible to avoid these catastrophic risks by implementing so-called 'appropriate non-contact periods' for organophosphate or carbamate plant protection substances. The most cost-effective way to protect bees and other insect pollinators against adverse effects arising from post-application exposure to the substances in fact requires the banning of the application of these substances to plants. Such a ban ought to be imposed until such time as there is irrefutable scientific evidence that they can be applied without post-application harm to pollinators (and humans). In 2009 it was estimated by that the economic value of crop pollination was 150 billion euros annually,

see Kjohl, Nielsen & Stenseth (2011) 1 see < http://www.fao.org/fileadmin/templates/agphome/documents/Biodiversity-pollination/Climate_Pollination_17_web__2_.pdf

It is disingenuous for the chemical industry to claim that there are enforceable means whereby it is possible to regulate the application of these substances in order to ensure that bees and other insect pollinators will not be adversely and ultimately lethally affected. These so-called 'plant protection substances' have been developed without concern for their cumulative and synergistic effects on pollinators and other species such as homo sapiens. Such substances are linked to CCD (colony collapse disorder) as well as the decimation of pollinators even in jurisdictions where these substances are subject to the (albeit self-administered) 'controls' on their application by farmers that are required by environmental protection regulators.

I wish to be heard in support of my submission (this means that you can speak at the hearing)

I do not wish to be heard in support of my submission (this means that you cannot speak at the hearing)

I wish for the EPA to make the following decision:

To ban, in other words implement a permanent non-contact period for, organophosphate or carbamate plant protection substances as well as neonicotinoids. These ecocidal substances must be removed from use. Instead Government should promote organic agriculture and agroecological systems in order to protect bees and other insect pollinators as well as humans against adverse effects arising from 'post-application' exposure to the substances;

see Centre for Food Safety 'Food & Climate : connecting the dots, choosing a way forward' (2014) at <
http://www.centerforfoodsafety.org/files/foodclimate_med_32825.pdf >

Further the EPA should be demanding the use of Green Chemistry alternatives instead of the current cocktail of toxins being accepted for registration in New Zealand. State governments in the USA are adopting Green Chemistry initiatives , e.g. Michigan Green Chemistry initiative and the California EPAs plan to promote green chemistry initiatives;

see Ruben... Presidents Cancer Panel (2010) 7 < http://deainfo.nci.nih.gov/advisory/pcp/annualReports/pcp08-09rpt/PCP_Report_08-09_508.pdf >

The decision recommended by this submission would be consistent with the EPA's statutory duties under HSNO Act 1996. The DCM should be mindful of principles of the Act stated in Section 5 :

All persons exercising functions, powers, and duties under this Act shall, to achieve the purpose of this Act, recognise and provide for the following principles:

(a) the safeguarding of the life-supporting capacity of air, water, soil, and ecosystems:

(b) the maintenance and enhancement of the capacity of people and communities to provide for their own economic, social, and cultural well-being and for the reasonably foreseeable needs of future generations.
