

Submission from Trevor Monson  
to the Senate Inquiry into

# The Future of the BEEKEEPING & POLLINATION Industries of Australia

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March 2014

*Trevor Monson is a second-generation beekeeper with wide experience in beekeeping and pollination, and most sectors of the agricultural, horticultural and forestry industries. Having managed and worked in these fields has kept him in touch with issues affecting Australian agriculture. His specialty is in pollination services to a wide range of growers and managing companies, which cover practically all crops that need honeybees. His expertise is sought after at all levels of farming, forestry, industry, research, policy-making and government advisory bodies, such as the current RIRDC Honeybee & Pollination Advisory Committee. His private and government sponsored research visits to the USA, and more recently China and Burma, have enriched his knowledge even further, especially in the fields of pollination, bee husbandry and the dangers of chemicals, pests and diseases on the honeybee. In fact, he is convinced that if the Australian Beekeeping industry doesn't keep abreast of best husbandry practices, take notice of what is happening in the rest of the world and research the latest development and research, it will not stay a viable industry.*

## *Introduction*

Compared to the rest of the world, Australia is in an enviable position. Our geographical position, surveillance, improved quarantine methods and advanced technology have managed to keep Australia free from varroa mite, which has become the major cause of beekeeping demise around the world. In fact it has been the invaluable cooperation between various agricultural industries and government bodies that has made this possible.

We also have the advantage of years of knowledge gained from overseas' research and experience with diseases of honeybees, the history of treatment methods and the worldwide effects of colony collapse and chemical use, in preparing for the time varroa mites and other exotic pests and diseases finally reach our shores. However, it has invariably been the case that each new country has found a previous country's treatment hasn't worked as expected and has had to research, develop and fine tune methods to suit their own. Therefore we expect history to be repeated, with a lot of beekeepers leaving the industry, a large reduction in beehive numbers, especially those meeting pollination requirements, and a complete change in bee husbandry and management.

In the last two years I have had the privilege of attending the Californian Beekeepers Annual Conference in 2012, been a delegate with the first beekeeping industry visit to China through the Australia-China Agricultural Cooperation Agreement Program in 2013 and visited Burma (Myanmar) this year as an agricultural advisor for the aid organization ADRA Myanmar. Bee health was always a major topic of conversation. And to my surprise, both China and Burma (Myanmar) seem to be managing very well with the varroa mite and showed little concern. Indeed, their knowledge of bee nutrition, general bee husbandry and management skills were outstanding.

The Australian Almond industry would be the largest consumer of beehives for pollination, as honeybees are essential to produce a crop. Being the major contractor for almonds grown in north-west Victoria, I will be contracting 110,000 hives from around 185 beekeepers from Queensland to South Australia for almond pollination this year. Forecasts for 2015 predict that the Australian almond industry as a whole will need 300 beekeepers to supply 250,000 hives. Double these figures and you will get an idea of the increasing pressure on the beekeeping industry to plan and improve its yearly program to supply the number of healthy strong bees required. A lack of resources together with pests and diseases all have their toll. In fact, most of the year I am educating, advising, mentoring and researching to try and help beekeepers survive and meet requirements.

For this reason I consider myself in a position to see a number of areas that need addressing to enable the Honey Bee Industry to meet future pressure and demand. Previously I sent a submission to the 'Future Development of the Honey Bee Industry' and fully agree with the recommendations brought down by the Senate in the 'More Than Honey' publication. I would like to further highlight and add the following:

## *Summary of Recommendations*

1. BIOSECURITY given top priority through continued support
2. CHEMICALS and their effect on bees and crops be constantly reviewed
3. EMPLOYMENT opportunities facilitated to meet the needs of the industry
4. LABELING needs to be honest

### *1. Biosecurity given top priority through continued support*

I believe there is a way to increase surveillance for exotic pests and diseases that may sneak in through our ports, such as the swarm of *Apis cerana* found in the mast of a boat at Cairns a while ago. And that is to utilize our hobby beekeepers. There are quite a number of hobby beekeepers that keep bees around our major cities and ports. Because of their love for bees they spend a lot of time observing their health and behavior. I consider it would be money well spent to train and educate our hobby beekeepers to detect pests and diseases, so that incursions can be picked up much sooner, thus increasing the possibility of eradication.

I would like to take this opportunity to applaud the way in which Horticulture Australia, Plant Health, the Beekeeping Industry and Rural Industries are working together to develop improved surveillance methods, including sentinel hives at the Melbourne Port, that could also use our hobby beekeepers and be rolled out to every port and major entry point in Australia. I would like to see both the government and the private sector work together to fund the rollout.

Another biosecurity issue concerns the process through which imported bees are quarantined. It's extremely important that the beekeeping industry has access to bee stock from overseas, to strengthen existing breeding stock and to develop strengths to resist pests and diseases, such as varroa. Queens arrive in small cages with a few escort bees and a limited supply of food. They enter the quarantine facility to be inspected for disease and pests. But, unlike all other livestock, the present policy prevents the release of cleared queens. Instead the queen stays in quarantine and the queen breeder goes through a number of processes before taking home the progeny from which to breed. This procedure is expensive, and prevents the breeder from caring for his queen and using his own specialized techniques, with disappointing outcomes.

I would like to see the quarantine policy reviewed to enable the following:

- a. The release of queens as soon as they've been declared free from disease and pests
- b. The employment of staff that have the necessary beekeeping skills to care for and manage bees while in the facility, to ensure the necessary vigor and strength for successful breeding is maintained

*2. A constant review of all chemicals, especially those used by farmers and beekeepers, as to their effect on honeybees, other pollinating insects, and pollination outcomes; and used sparingly, correctly and appropriately when necessary*

Insects are often the prime target for chemicals. Before registering chemicals used for agriculture and the environment, their effect on honey bees and beneficial insects needs to be rigorously tested, including all stages of life, including the larvae (brood production) as well as the adult stages, and for several generations. Continual reviews should be a matter of course as constant use, climatic conditions and factor combinations can radically change initial results. Chemical users, farmers and beekeepers have to know what they are doing, so instructions and quantities have to be explicit. Some chemicals require special training. And some simply can't be applied together or at certain times of the day. Because of the high cost of spraying some growers are known to combine several sprays in the same vat, with no idea of toxicity or outcome to crops or insects. The question needs to be asked as to whether it's worth it? What are we doing? Is there another way of control without using chemicals? Do we really know what these chemicals are doing?

Since the worldwide Colony Collapse of honeybees, a warning has been issued to farmers to know their pesticides and fumigants and how to use them. "Growers...must maintain a delicate balance between protecting their crops from pests and pathogens, and protecting the insects that are necessary to pollinate their crops." "Chemical contamination is one of the possible contributing factors that is being investigated" for CCD. Beekeepers may be using chemicals within the hive as well as farmers using chemicals on the crops the bees are visiting. The warning talked of the increased toxicity that certain chemicals have, when two or more chemicals were being used at the one time. An example was given of the common practice of combining certain insecticides and fungicides. It was found that some combinations could increase the toxicity of a component 1,000 fold. Some farm chemicals have a systemic effect, making the treated plants toxic to insects that collect their pollen and nectar. Foraging honeybees transfer these chemicals to the hive bees and queen, causing memory, navigation, orientation and feeding behavior problems, even death.

Quotes and material from "Protecting Honey Bees from Chemical Pesticides" by Maryann Frazier, Senior Extension Associate, Pennsylvania State, which was released by the official CCD website: MAAREC.org

And even more disturbing evidence is now emerging that certain sprays and when they are applied can stop the pollination process in the plant itself, even though pollen has been successfully transferred.

### *3. Employment opportunities are facilitated to meet the needs of the beekeeping industry*

Because of my role as a pollination sub-contractor and manager, I'm in touch with a large database of beekeepers from all the eastern states. Many say they can't find workers that are skilled in areas such as royal jelly production, queen rearing, propolis production and bee breeding techniques. It is my belief that the beekeeping industry will get through the challenges ahead, including varroa mites and increasing pollination demands. But the challenge of finding seasonal, part-time or full-time workers for limited or short periods of time is very difficult and often impossible. As most workers are coming from overseas it would help if the Australian government had a uniform set of guidelines for immigrants wishing to come to Australia as beekeepers. And it would be an advantage to have 3 to 6 month visas, so that workers were available for short work assignments. If varroa mite or another threat was to hit, it would also be helpful to allow overseas beekeepers and their families from the northern hemisphere to spend their off-season working in Australia.

I'd also like to mention the move by government to increase the level of English required could further disadvantage and restrict the availability of workers.

### *4. Labeling needs to be honest*

While visiting China with ACACA the desire for Australian products was raised a number of times. But, the need for improved labeling of Australian products was very clear. For example, royal jelly was being sold in Australia, appearing as a Product of Australia, when in fact it was not. Our present laws enable products to be legally marketed as a Product of Australia, because the container is Australian and worth more than the product inside. I know of one particular Chinese business man who would love to produce royal jelly in Australia and market it as being 100% Australian, but knows the product would be too expensive to be successful, seeing as our labeling laws are not honest and there is already one on the market that is so-called Australian. Consumers need to know the truth to support real Australian products.

*PLEASE NOTE I AM AVAILABLE FOR THE PUBLIC HEARING AT MURRAY BRIDGE*

*Thank you for the opportunity to air some of my thoughts. I trust the Senate Inquiry will be successful in highlighting the needs of the Honeybee and Pollination Industries to create beneficial and timely outcomes. I am happy to give more information and appear in person if needed at the public hearing scheduled at Murray Bridge in South Australia on April 15, 2014.*