



Fruit
Growers
Tasmania Inc

ABN: 175 629 98069

15 February 2016

Committee Secretary
PO Box 1600
Parliament House,
Canberra, ACT, 2600

Dear Committee Secretary:

Re: Fruit Growers Tasmania Response to The Risks And Opportunities Associated With The Use Of The Bumble Bee Population in Tasmania for Commercial Pollination Purposes.

Fruit Growers Tasmania (FGT) is a grower owned incorporated non-profit organisation with a strong proven track record in delivering outcomes for the Tasmanian (and national) industries for over a decade. With its unique pest free status, the island state's producers have relatively unrestricted market access for apples and cherries into a number of key Asian markets with the industry now worth over \$100m annually.

The Tasmanian fruit industry is undergoing transformation because of the market demand and assisted by the respective Free Trade Agreements. Local and international investment as well as investment in fruit production by mainland producers has seen more apple trees planted in the past three years than in the previous five decades and there is currently a two-year wait for cherry root stock.

With a strong membership base across the pome, cherry, summer-fruit and berry sectors, FGT has developed strong working relationships with peak industry bodies, state industry organisations, honey producers, commercial stakeholders, associated institutions (i.e. Tasmanian Institute of Agriculture), national committees (PHA) and all tiers of government. For the purposes of this paper, FGT is also a member of Tasmanian Crop Pollination Association as well as linking in with other groups such as the Invasive Species Council.

Previously FGT worked with CSIRO, University of Tasmania and honey producers on the micro-sensing project with bees.

Terms of Reference Response:

Taking into account much of the material which has been previously produced in relation to the presence of the large earth bumblebee (*Bombus terrestris*) in Tasmania, it is clear the Environment and Communications Reference Committee is faced with two choices:

- 1) Removal or partial exemption of the large earth bumblebee from the Environmental Protection and Biodiversity Conservation (EPBC) Act to allow research into the effect of its presence on native bee populations, environmental risks and other impacts including competition for floral resources, weed spread, effectiveness as a pollinator and potential for spreading of pathogens and parasites.
- 2) Retain the law under the EPBC and undertake a Commonwealth/State funded project to eradicate the large earth bumblebee from Tasmania.

It is not the position of Fruit Growers Tasmania to apply for a complete exemption when so much about the behaviour of the bumble bee including the biodiversity impacts in an Australian environment, particularly Tasmania's pristine World Heritage Areas, remains unknown. Therefore this industry body is calling for an exemption in order to allow research as the first step.

Equally, it is no longer acceptable to prevent research into these factors while allowing the current situation where the bumblebee is accepted as a pest while continuing to evolve causing unknown impacts. Sooner or later the bumblebee will become established on the mainland should the status quo be maintained.

Bumblebees as pollinators:

The effectiveness of the large earth bumblebee as a pollinator is defined differently sector by sector. For example: colonies of bumblebees are not sufficient at the critical pollination time required by the cherry industry.

However berry producers with operations under nets and poly-tunnels have provided anecdotal evidence that bumblebees are available in sufficient numbers at the critical pollination time.

Without the ability to undertake research, it is also believed bumblebee numbers are sufficient at pollination times for apples and pears.

If it wasn't for the bumble bees up here as well as the honey bees that we have delivered to us, our crop wouldn't pollinate. The bumble bees work no matter, rain, hail or shine. Honey bees take off as soon as there is no sun!!!!!!

The bumble bees were actually hit with a virus over the last 2 years and their numbers have been well down. Have seen a rather large resurgence this year - thank goodness. They are better cross pollinators than the honey bees as they are able to take more pollen on their legs. The benefits are enormous.

They are definitely not a pest. Nor do they attack any of the bee hives (old wives tale!).

You only have to take a look at our farm to see the results. Interesting study that we have been doing on the ground for the last 4 years..... (Trish – Berry Producer West Tamar)

Grant is a berry producer from Lalla in North Eastern Tasmania and here are his views:

Thank you for the opportunity to comment on this issue. We have a small but growing Blueberry plantation near Lalla. We also have on our property a wild honeybee hive which is very active throughout spring and summer. We are also fortunate to have large amounts of Bumblebees.

The Bumblebees are extremely hard working, from sunup to sunset, rain or shine, and are very good at pollinating our Blueberries. I have also observed very large numbers of honeybees on the same bushes, though for not as long in the day and not when it is raining.

I have never observed aggression of one species to another, nor have I seen any evidence of the honeybees hive being threatened by the bumblebees.

I am more than happy to allow the two to operate at my farm and I believe that when we reach full plantings (more than 5000 trees), we will need every bee around to ensure a full crop.

The Bumblebee in my opinion should be encouraged to multiply especially with the honeybee diseases that will eventually make its way down here. Bumblebees get the thumbs up from me

Pollination Issues

The State's producers are constantly facing a decrease in pollination services which is driven by two factors:

- 1) Tensions between the production horticulture sector and beekeepers over the treatment of hives placed on farms for pollination services. The tension has arisen as the result of producers irrigating or spraying during the times bees are pollinating. This has resulted in beekeepers continuing to withdraw pollination services.
- 2) The high price received for honey in key Asian export markets has seen more value for beekeepers in placing their hives for honey production.

Rarely has the phrase as busy as a bee been more apt than in the verdant countryside and ancient forests of Tasmania, where honey producers are struggling to keep pace with soaring export demand.

The island's honey exporters, such as Australian Honey Products, say they cannot meet the demand from Asia and Europe, even before the recently signed China free-trade agreement slashes tariffs of up to 25 per cent levied on their products. As well, as the world struggles with the devastating varroa mite and other bee pests, Tasmania's relative pest-free status is leading to live bee exports to replenish hard-hit populations as far afield as Canada.

However, a shortage of apiarists and difficulty accessing leatherwood trees in remote forests threaten to stymie the sector's rapid transition from hobby to high-value niche industry.

Tasmanian honey exports soar as Asia demands more – The Australian 22 August 2015

The ever-growing shortage of hives for pollination has driven the emergence of a dedicated pollination sector of beekeeping under the Tasmanian Crop Pollination Association of which FGT is a member.

It is clear that pollination services will become a specialised sector in its own right into the future. This is a very different model of beekeeping to that of the traditional honey-based industry with a pollination service on the side.

Pollination prices have risen as much as seven times this last season for some crops, so growers have a strong financial incentive to work alongside the pollination providers.

A key limitation in developing the pollination sector is that Tasmania's unique status as an island meant there was no possibility of bringing bees in from the mainland to assist in expanding the pollination populations at a level to meet the increase in production across the State's fruit sector. In preference to increasing pollination services, some Tasmanian beekeepers are exporting disease free bees overseas as indicated in the above article.

Research on Tasmanian colonies would allow trials on how to artificially break *B. terrestris* queens' winter diapause cycle and therefore produce the relevant numbers for pollination services at the required critical times.

Additionally with the external threat of varroa mite and colony disorder collapse, the bumblebee could become the insurance against varroa and chronic stress.

Studies:

There have been minimal studies undertaken in Tasmania due to the legislation. However, in 2006 Dr Andrew Hingston undertook observational studies into the spread and impact of the bumblebee in Tasmania.

His study found the bumblebee was widely distributed including Maatsuyker Island 10km off the South West Coast of Tasmania and well as islands in the Furneaux group.

Despite claims of the Tasmanian bumblebee populations being limited genetically, the expansion of populations since 1992 would indicate otherwise.

No other studies have taken place because of the legislative restrictions.

Conclusion:

Many claims have been made on the potential benefits or the negative aspects of bumblebees with mainland states treating them as a pest of concern.

However the decision of the Committee must relate to two choices as outlined at the beginning of the paper. The current situation is no longer considered acceptable as it leaves producers, researchers and the public in limbo about the presence of the bumblebee. It is the recommendation of Fruit Growers Tasmania that the large earth bumblebee is removed (either wholly or partially) from the Environmental Protection and Biodiversity Conservation (EPBC) Act for the purposes of legitimate research.

However if the Committee determines an outcome in the negative – as in maintaining the status quo, Fruit Growers Tasmania requests a recommendation in the final report for a combined State and Federal Government eradication program for the bumblebee, given the retention under the EPBC would indicate an acceptance of the risk caused by the bumblebee.

If required, this paper can be presented to the Committee in person.

Point of Contact:

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