# INQUIRY INTO THE FUTURE DEVELOPMENT OF THE AUSTRALIAN HONEY BEE INDUSTRY

# **SUMMARY**

Submitted by: Adrian Jones, Proprietor, Pollibee Apiaries,

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#### **TERMS OF REFERENCE**

### 1/. HONEY BEE INDUSTRY'S CURRENT AND FUTURE PROSPECTS:

Potential for growth is enormous, particularly regarding the value of horticultural pollination. This can only be achieved by continued, guaranteed and affordable access to public lands, necessary for the survival of the industry.

### 2/. ROLE IN AGRICULTURE AND FORESTRY:

(a) Crops beekeepers access and pollinate have much higher yields following systematic and professional pollination.

(b) Apiculture and Forestry can exist alongside each other. They have done so for decades.

### **3/. BIOSECURITY ISSUES:**

Varroa is the biggest immediate threat, not just to the beekeeping industry, but to horticulture as well.

# 4/. TRADE ISSUES

A "clean" product will see a small but healthy export industry. Pollination practices will not just sustain but increase horticultural exports.

# 5/. THE IMPACT OF LAND MANAGEMENT AND BUSHFIRES

(a) The 2024 termination of beekeeper access to public lands signals the death of Queensland commercial beekeeping operations.

(b) It's time to move from parochial state-based policies for what is an Australia wide industry.

#### **6/. RESEARCH AND DEVELOPMENT NEEDS:**

Conduct an **UNBIASED** <u>**UNPOLITICAL</u> SCIENTIFIC** investigation of the actual impact of commercial beekeeping on public lands.</u>

### 7/. EXISTING INDUSTRY AND GOVERNMENT WORK

Need for more personnel and more research.

# INQUIRY INTO THE FUTURE DEVELOPMENT OF THE AUSTRALIAN HONEY BEE INDUSTRY

Submitted by: Adrian Jones, Proprietor, Pollibee Apiaries, 76 Onoprienko's Road, Childers, Qld, 4660

# Thumbnail sketch:

**Personnel**: Beekeeping has been in the family for four generations. Current business started by Adrian as a hobby, gradually, through pollination contracts, growing in size. Today, Adrian and wife Leanne (both late forties) are in full time employment as teachers while the business is run mainly by son, Daniel, (24) working in a full time capacity.

**Capacity**: Up to 800 hives, most palletised. Work within a 300 klm radius of home. This year will move interstate (Almond pollination & Canola) for the first time.

**Income:** Income is derived mainly through local pollination. Crops currently pollinated are: Avocados, Macadamias, zucchinis, pumpkins and melons. March to October would see, on average, a minimum of 200 hives on pollination in small crops. August & September sees the residue committed to orchard (mainly Avocado) pollination. We hope to extend our base through Victorian Almond pollination, picking up Canola on the way home.

Drought has seriously affected our honey production.

### **TERMS OF REFERENCE**

# 1/. HONEY BEE INDUSTRY'S CURRENT AND FUTURE PROSPECTS:

**Potential:** I believe potentially our small industry is facing a huge growth. Partly this is due to the production of healthy and clean honey for consumption and the interest in honey used for medical purposes, but mainly as a service industry through pollination. The latter is gradually being acknowledged, with the Almond industry (for example) seeking a regular source of pollination, helping to fund protection against invasive diseases that have severely affected crop production in the US and now NZ.

Actual: Most beekeepers, particularly in SE Qld, rely heavily on access to public lands. Reasons are:

- Honey production. Extensive stands of particular varieties, eg Brush Box, exist only on State land
- Recovery. Hives used extensively in pollination need areas to recover. Such areas have many varieties of pollen and honey producing trees and plants (not mono-cultural like a horticultural crop) and are free from possible insecticide contamination.
- Resources. Much private land has been cleared. NB: Even with stricter land clearing laws, if a large block is subdivided and sold as smaller blocks, legislation (in Queensland anyway) allows a certain portion to be cleared for sites for a house, a shed etc. The combined area of this clearing is far greater than what would have been allowed on the original block.
- Access. Payment of site fees and professional behaviour guarantees access. Private land can be cleared (no longer useful), subdivided, sold with future access denied, poached by another beekeeper.

### Most significant issues:

A/. As of 2024, or at the will of the government prior to this as currently reflected in the temporary nature of Apiary Permits, all access to public lands will be denied. While some beekeepers will survive, most will not. The potential of our industry to service horticultural needs will be gone. No access to public lands will destroy the commercial beekeeping industry and decimate horticultural yields.

**B**/. Different states have different access laws. The time has come to abolish different rules in different states. For beekeeping alone, state laws impact on registration as a beekeeper, access to public land, recognition of the worth of the industry, Workplace Health and Safety Legislation, Transport rules and requirements, and I believe but am not certain, regulations concerning employee's rights.

The EC has been working to remove boundaries between countries on the same continent. We are unable to remove boundaries between STATES in the same country.

# 2/. ROLE IN AGRICULTURE AND FORESTRY:

(a) The role in agriculture I have already mentioned. Reports from NZ, for example, on the impact of Varroa mite on the pollination of crops such as Kiwifruit saw production drop by up to 40% where farmers chose not to pay the increased costs of pollination following the reduction in hive numbers, or were unable to access such a service at all.

I believe we are about to witness a staggering increase in understanding and accessing pollination throughout Australia. The Almond industry is already accessing huge numbers of hives and will need more, and other industries, such as Macadamia producers, are considering paying for services which have previously been supplied, generally free of charge. Canola production too is enhanced by pollination.

Obviously, the crops we are paid to pollinate, listed above, have much higher yields following systematic and professional pollination.

(b) Apiary sites in Queensland are traditionally in areas that have been logged. The two industries can and have peacefully co-existed for decades.

# **3/. BIOSECURITY ISSUES:**

Varroa is the biggest immediate threat. It's in NZ, Indonesia and PNG. If it gets here (if not already either unknown to us or in one of those hives in Cairns) its impact will be many fold.

1/. Immediate reduction in commercial hive numbers, leading to higher prices for pollination services due to the difficulty to meet existing demands.

2/. More labour intensive. NZ experience would suggest ratio of hives per operator drops from 500 - 600 per person in Australia currently, to about 350.

3/. Use of chemicals in the hives to treat Varroa. Any chemical use risks contamination of hive products, eg honey and wax.

4/. Annihilation of all feral hives (hives in trees.) These hives currently have an impact on pollination in the horticultural sector. Unmanaged and untreated, they will die. AHBIC reports on the impact in NZ showed people in towns were experiencing difficulty getting fruit to set on the trees in their backyards such is the total devastation.

5/. Lower crop production in horticultural industries dependent on pollination.

6/. End of the package bee market, currently worth millions, in the export to countries like the US. NB: In the Wide Bay Branch of the Qld Beekeeper's Association, of which I am a member, several beekeepers regularly travel interstate and have made substantial profits supplying bees for this market.

# 4/. TRADE ISSUES

The beekeeping industry has a small direct and large indirect impact on trade.

**Direct:** Export of honey, wax, queen bees and package bees. A "clean" product will not see restrictions on the export of Australian bees and their products as was witnessed several years ago when contaminated Chinese honey was rejected by the world market.

Indirect: Reduction in potential exports for horticulture, both fresh and processed.

**Protection:** Screening bee product and honey importations is essential for the protection of a currently small but healthy Australian industry.

### 5/. THE IMPACT OF LAND MANAGEMENT AND BUSHFIRES

### Part (ii) is additional. Part (i) is included in (1) Current and Future Prospects.

### Part (i):

Land Management: Most beekeepers, particularly in SE Qld, rely heavily on access to public lands. Reasons are:

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### Part (ii): NB: ADDITIONAL INFORMATION

C/. Access to public lands by beekeepers keeps tracks open as firebreaks or as access for fire fighting, provides additional eyes and ears in monitoring these areas from the viewpoint of a group that has a vested interest in maintaining access to and the integrity of such lands and ensures the continuation of a traditional European practice.

**D**/. Commercial beekeeping is migratory. Hives are moved in truckloads, ranging from multiples of 16 (ute loads) to 120 or more. To facilitate access, honey removal, queen replacement and general maintenance, they are placed in groups of large numbers, sometimes to the very limit of the apiary site approval for numbers of hives. Concern exists regarding the impact of the hives on native fauna. This is minimised by the commercial reality of husbandry that for the survival of the bees, let alone a profitable production, they can only be in one area for as long as there is an abundance of nectar or honey. Once this begins to decline, the hives are moved to the next source.

E/. Access to hardwood plantations, as proposed by the conservation movement, is not a viable alternative for several reasons:

- (a) They are planted as a mono-culture.
- (b) They supply only one type of pollen, which may be deficient in protein. Do you eat only one type of food?
- (c) Their flowering period lasts only for a few weeks.
- (d) They are harvested as quickly as possible to maximise returns for investors. Young trees do not produce the same yields for bees as mature trees.

**F**/. Bushfires destroy foraging prospects for bees. Unless sites are of a reasonable size and allowed to be kept clean, fires can, and do, destroy hives themselves. Hive bodies and frames are of predominantly wood construction, with plastic having an increasing input. Both of these sources are highly flammable. Beeswax, unfortunately, adds fuel to the mix.

G/. Beekeepers usually maintain a considerably larger number of sites on public lands than they would appear to need.

This is because:

- (a) Unfortunately, even in ideal weather conditions, very few sites can be used every year.
- (b) Some types of trees, eg Spotted Gum, only flower every few years. When they do, they are a rich source of pollen generally during the cooler, thus more stressful breeding months, of the year.
- (c) If sites aren't paid for every year to keep them, the next time the trees bud, the sites may be booked by another beekeeper and your bees are in trouble.
- (d) The same tree, eg Spotted Gum, will flower at different times at different altitudes and in different places. In our experience, it is possible to move from stands of Spotted Gum on low country near Maryborough (Qld), to high country at Aramara, (still near Maryborough) and thence to Monto.
- (e) Rainfall patterns can have huge differences in relatively short distances. This was vividly illustrated one year when my friend and I were checking our sites in Jimna and Kenilworth State Forests, as they then were. We found no Grey Ironbark trees in bud after having driven nearly all day checking potential country in which we had sites. Late in the afternoon we were about two kilometres from a difficult to access ridge where I had sites. My friend wanted to go home, but we were in my vehicle so we checked. The ridge was loaded. We could only assume it had received a narrow but intense storm at some point that set the only bud we could find in the one hundred square kilometres we had checked.

**H**/. The source of medi honey grows predominantly on state lands. While some states prioritise beekeeper access to these areas, others do not.

# 6/. RESEARCH AND DEVELOPMENT NEEDS:

- (a) An **UNBIASED** <u>UNPOLITICAL</u> SCIENTIFIC investigation of the actual impact of commercial beekeeping on public lands.
- (b) Beekeeper representation in decisions concerning them. For example, in Queensland, during the development of the plan for the usage of Western Hardwood, beekeepers and representatives of any beekeeping organisations were deliberately excluded, despite the fact we work in these areas and had been included in discussions re the South East Queensland Regional Plan.
- (c) Research into pests and diseases, particularly Varroa.
- (d) Research into bee genetics. Focus has traditionally been on queen quality. What about drones?
- (e) A greater understanding of the interdependency of the beekeeping and horticultural sectors.
- (f) More researchers available, either through the Department of Primary Industries or some other government body. These personnel are fantastic sources of both information and encouragement.

# 7/. EXISTING INDUSTRY AND GOVERNMENT WORK

As a Queensland beekeeper, much of my information ironically comes from research conducted in NSW. Our DPI reps are very capable, but are too few in number and overworked.

I am aware that various studies are in progress nationally, such as a greater interaction between the horticultural sector and us, but I only read or hear of these reports via my Branch of the QBA. Others will be far more able to comment upon these issues.