



A New South Wales Apiarists' Association Position Paper



**APIARY SITES
ON PUBLIC LANDS**





NSW Apiarists' Association Inc.

Apiary sites on public lands - A NSW Apiarists' Association position paper

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The NSW Apiarists' Association requests the NSW government to:

1. **Provide an 'all of government' approach** to dealing with apiary sites on government land tenure.
2. **Provide a policy on beekeeping** from each government agency managing lands traditionally utilised by beekeepers for apiary sites.
3. **Provide a consistent set of apiary site use permit conditions** across all government land tenures.
4. **Grant access to any government lands for apiary sites** where this does not cause public risk or undue damage to the area in the process of gaining access.
5. **Recognise the "National Best Management Practice Guidelines for Beekeeping in the Australian Environment"**.
6. **Provide long term permits** of 5 years or greater.



»» FOREWORD

A very significant proportion of our major agricultural and horticultural industries are reliant on the pollination function of foraging honey bees.

Without honey bees, food security will be severely compromised.

The NSW Apiarists' Association is the peak industry body for the state, representing commercial beekeeping interests. An industry workshop conducted the day before the association's annual conference in May 2014 clearly identified floral resource access as one of the most important issues for the continued economic viability of beekeeping within NSW.

Arguably, floral resources are more significant to commercial beekeepers than any other issue - including biosecurity. Without access to a range of flowering species capable of delivering floral rewards in the form of nectar and pollen, a honey bee colony will perish.

The beekeeping industry has firmly been identified by a range of studies and reports as being a vital, although small, rural based industry. The role of honey bees as pollinators of a very large range of economically important flowering crops is well documented. A very significant proportion of our major agricultural and horticultural industries are reliant on the pollination function of foraging honey bees. Without honey bees, food security will be severely compromised.

This association has historically interacted and worked with the various government agencies who manage tracts of land utilised by beekeepers. In fact, it could be argued that this has been our core role for many years – to secure access for beekeepers to government-owned lands.

At our 1998 annual conference on May 22nd the (then) Minister for the Environment, the Hon. Pam Allan, MP announced significant changes for beekeeping on National Parks and Wildlife Service lands that would ensure ongoing access by commercial beekeepers. Significant steps forward by the industry are hard won and extremely time-consuming for the range of volunteers who put their hand up to work for our organisation.

One of our major frustrations is the – at times – extreme variability between government departments in their view of commercial beekeeping and variable willingness to work with our association. The lack of consistency within the one department over time, and between departments, in relation to a "government" view of beekeeping has made our job extremely difficult.

This document has been commissioned by the NSW Apiarists' Association Inc. executive to provide a background as to why and how the commercial beekeeping industry operates in the NSW landscape. For the future of beekeeping in NSW, the industry requires the NSW government to provide a degree of assurance that access by beekeepers to public lands is secure.

Casey Cooper

President, NSW Apiarists' Association Inc.



»» EXECUTIVE SUMMARY

The very survival of any beekeeping enterprise is deeply dependent on the beekeeper's ability to move bee hives to locations that will meet the nutritional needs of the colonies.

The NSW government could do a lot to alleviate one major area of concern – that of apiary site access onto public lands.

This document undertakes to comprehensively outline the position and behaviour of a small, but vital, industry's reliance on floral resource access. The very survival of any beekeeping enterprise is deeply dependent on the beekeeper's ability to move bee hives to locations that will meet the nutritional needs of the colonies. Without a significant range of flowering species to choose from, the beekeeping business model is severely compromised.

Access to government land including forests, parks and travelling stock routes has become a vital resource for the continuing function of commercial beekeeping within NSW. The NSW Apiarists' Association has been increasingly frustrated with their endeavours to deal with the various government departments to achieve workable solutions.

Beekeeping businesses are geographically spread across rural NSW. The importance of these businesses in small local communities is significant, but the growing role of honey bees as 'paid' pollinators of a range of economically important crop species makes the value of commercial beekeeping business far more valuable to the NSW economy.

Australia has experienced a series of biosecurity breaches which have put enormous pressure on those keeping honey bees. Up until the seventies, beekeepers had to deal with American foulbrood, Sacbrood, nosema and wax moth. Since then European foulbrood, chalkbrood, another nosema species, small hive beetles, cane toads, European wasps and Asian bees have all had an impact. In some cases this has seen the exit of beekeepers from the profession.

Australia is currently free of a range of other parasites (mites) that have the potential to devastate the beekeeping industry. Combine this threat with variable market prices, droughts and the regular pressures of conducting a business, the NSW government could do a lot to alleviate one major area of concern – that of apiary site access onto public lands.



»» OVERVIEW OF INDUSTRY VALUE

The annual gross value of production of honey and associated bee products in Australia is around \$94 million.

Honey bees (*Apis mellifera*) were successfully introduced to Australia in 1822. They have become a vital component of the food producing landscape within our country. Unfortunately, for a range of reasons, the future of honey bees and beekeeping is under threat.

The annual gross value of production of honey and associated bee products in Australia is around \$94 million. A range of specialist products are produced by beekeepers besides bulk table grade honey. Honey comb is a unique and highly sought after product and bee-collected pollen is harvested and consumed in the health food market. All honey is obtained from specific floral resources which impart their unique characteristics of that honey source – through colour, flavour and aroma.

The greatest value of honey bees to Australia is in their value as a plant pollinator of a very significant list of agricultural and horticultural crops. Various estimates put the net benefit derived from honey bees in the order of \$4 to \$6 billion per year.

Table 1 provides a list of many of the economically important horticultural and agricultural crops and the degree to which the interaction of honey bees benefits the final yield of that crop.

Table 1: Pollination responsiveness of selected crops (as percentage of yield)

Source: Pollination Aware: The Real Value of Pollination in Australia (RIRDC Pub. No. 10-081, August 2010)

Tree Crops		Ground Crops		Vine Crops		Seed Production	
Commodity	Responsiveness (%)	Commodity	Responsiveness (%)	Commodity	Responsiveness (%)	Commodity	Responsiveness (%)
Almond	100	Peanuts	10	Blueberry	100	Beans	10
Apple	100	Broadacre crops		Cucumber	100	Broccoli	100
Apricot	70	Canola	15	Kiwi	80	Brussel sprouts	100
Avocado	100	Cotton	10	Pumpkin	100	Cabbage	100
Cherries	90	Soybeans	10 - 60	Rockmelon	100	Canola seed	100
Citrus	0 - 80	Sunflower	30 - 100	Squash	10	Carrot	100
Grapefruit	80			Watermelon	70	Cauliflower	100
Lemon & lime	20					Celery	100
Macadamia	90					Clover	100
Mandarin	30					Lucerne	100
Mango	90					Mustard	100
Nectarine	60					Onions	100
Orange	30						
Papaya	20						
Peach	60						
Pear	50 - 100						
Plum & prune	70						



»» OVERVIEW OF INDUSTRY VALUE

NSW is the largest producer of honey products within Australia, with an estimated annual honey crop of 14,000 tonnes in a normal season.

The role of honey bees in the pollination of legume species within improved pasture grazing management systems is highly significant. The various clovers and lucerne which make up a very large proportion of the valuable nitrogen fixing legume mix in improved pastures benefit from the visits of honey bees to pollinate these plants. Thus, the livestock agricultural industries are by implication also partially reliant on the valuable pollination contribution provided by honey bee behaviour.

NSW is the largest producer of honey products within Australia, with an estimated annual honey crop of 14,000 tonnes in a normal season. Climatic influences have a major impact on the honey bees' ability to forage. Rainfall has a major impact on the growth and bud initiation of all flowering plants.

NSW production varies from 40 to 45% of the total honey crop of Australia. NSW honey production is estimated to be worth \$22 million annually, with sales of queen bees and package bees worth \$4 million. Sales of minor products such as beeswax, propolis and honey comb are said to be worth \$2.5 million, although this figure may be much higher in recent years for honey comb as there is an increasing interest for export of this product into various Asian markets.





»» BEEKEEPING INDUSTRY STRUCTURE

A full-time apiarist may have a family structured business where one individual may carry out most of the beekeeping functions in that business, or the structure may be more complex.

In NSW there are 400 beekeepers registered whose status is “commercial” and 2,953 beekeepers who are “recreational” or “other”. The total number of commercial bee hives registered is 178,459 (NSW DPI Beekeeping Registration System, 5th September 2014).

A commercial apiarist may be considered part-time (deriving only part of their main income from managing bee hives) or full-time. A full-time apiarist may have a family structured business where one individual may carry out most of the beekeeping functions in that business, or the structure may be more complex.

There are numerous examples of larger beekeeping businesses incorporating many family members, i.e., brothers, sons, nephews, daughters or employing persons in various roles within the business.

There are certain restrictions to the entry of persons considering working in beekeeping businesses. The single biggest issue is the fact that bees sting. There is a significant proportion of the population that have a low tolerance to honey bee venom, which precludes them from being regularly exposed to honey bees. Likewise, even though this is a relatively small group, it would be fair to say that the majority the general population demonstrates some degree of fear around honey bees and active apiaries.

Beekeeping is also a very physically demanding industry where the removal of honey boxes and the manipulation of bee hives can be physically demanding. This aspect has probably restricted the industry to a largely male dominated working environment.



»» BEEKEEPING INDUSTRY STRUCTURE

The single biggest issue is the fact that bees sting.

For a person to be a successful commercial beekeeper they would be required to possess a very high degree of knowledge and understanding on a range of management issues associated with keeping honey bees. Briefly, these may include:

- A comprehensive knowledge of the various pests and diseases that may afflict honey bees.
- A very good understanding of the flowering cycle of key melliferous flora in a safe travelling range from the beekeeper's base.
- Food handling requirements of the market and a thorough understanding of the processes to produce a high quality product under today's stringent QA environment.
- An understanding of the bee requirements to pollinate a range of pollination-dependent commercial, agronomic and horticultural crops and the risks associated with pesticide use on these crops. Also the nutritional impact of the pollen and nectar produced by these crops to honey bees.
- The ability to manipulate the nutritional inputs from targeted flowering events to maximise colony populations. Colonies of honey bees need a range of pollens and stimulating nectar to promote bee breeding. Honey crops only occur as a result of maintaining strong populous colonies.
- Business and financial skills appropriate to an extremely variable income stream. Beekeeping businesses have historically been based on honey production. This income is extremely variable due to climatic factors and the flowering behaviour of the nectareous flora on which beekeepers rely, in the various geographic regions.

Restrictions to beekeeping businesses include knowledge of the flora in a given region, the impact of biosecurity threats to their bees and the physical limitation of the number of bee hives which can be managed by each practising beekeeper within the business.





»» APIARY MOVEMENTS & RELIANCE ON SITE CHOICE

The difference in the Australian mainland context is due to the sporadic flowering of eucalypt species.

To provide security to each beekeeping business, each operation requires access to a network of sites with a range of floral species represented. The Australian mainland commercial beekeeper is nomadic. Virtually all the rest of the commercial beekeeping scene around the world is based on a migratory model. Nomadic movement is dependent on what is in flower in any particular year, i.e., there is not an annual pattern in place. On the other hand, a migratory beekeeper will move their bee hives at roughly the same time each year to roughly the same geographic location, sourcing the same floral event to benefit their honey bee colonies.

The difference in the Australian mainland context is due to the sporadic flowering of eucalypt species. A paper produced by Brad Law (2000) illustrates the gaps that can occur, measured in years, within the one species of eucalypt. This study was based on data collected by the then NSW Forestry Commission and clearly illustrates the degree of variability of flowering events even in a geographic region of NSW that is traditionally considered as having a regular and reliable rainfall pattern.

In another study (Somerville 1999) 51 floral species were identified as being of primary importance to commercial beekeeping interests. Of these, 37 were eucalypts or closely related corymbia or angophora species. A table of the frequency of flowering is as follows.



»» APIARY MOVEMENTS & RELIANCE ON SITE CHOICE

Table 2: Frequency of flowering of important eucalyptus and related species to commercial beekeepers in NSW (units in years).

Species	Most Likely	Possible
	Frequency	
Eucalyptus melliodora	2 - 4	up to 10
Eucalyptus paniculata	2 - 3	up to 10
Corymbia maculata	3 - 5	up to 10
Eucalyptus macrorhyncha	3 - 4	up to 10
Eucalyptus camaldulensis	2 - 4	up to 10
Eucalyptus sideroxylon	2 - 3	up to 6
Eucalyptus albens	2 - 3	up to 5
Corymbia gummifera	2 - 3	up to 6
Eucalyptus pilularis	2 - 3	up to 10
Eucalyptus acemenoides	2 - 3	up to 7
Eucalyptus dealbata	2 - 3	up to 10
Eucalyptus fibrosa	3 - 4	up to 10
Eucalyptus largiflorens	3	up to 6
Corymbia trachyphloia	2 - 3	up to 5
Eucalyptus bridgesiana	3	up to 5
Eucalyptus microtheca	2 - 3	up to 5
Eucalyptus crebra	3 - 4	up to 10
Eucalyptus macrocarpa	2 - 3	up to 10
Eucalyptus blakelyi	3 - 4	up to 10
Eucalyptus tereticornis	2 - 3	up to 7
Eucalyptus melanophloia	3	up to 6
Eucalyptus caliginosa	3	up to 5
Eucalyptus muelleriana	3 - 4	up to 8
Eucalyptus viridis	3	up to 6
Eucalyptus viminalis	3 - 4	up to 6
Eucalyptus globoidea	3	up to 6
Angophora floribunda	2 - 5	up to 10
Eucalyptus moluccana	2 - 4	up to 7
Eucalyptus saligna	3	up to 5
Eucalyptus andrewsii	2 - 3	up to 5
Eucalyptus laevopinea	2 - 5	up to 6
Eucalyptus socialis	3	up to 10
Eucalyptus punctata	3 - 4	up to 5
Eucalyptus species (stringybark)	2 - 3	up to 5
Eucalyptus pauciflora	3	up to 5
Eucalyptus caleyi	3	up to 6
Eucalyptus resinifera	3	up to 4



»» APIARY MOVEMENTS & RELIANCE ON SITE CHOICE

Pollen provides to a honey bee colony the protein, amino acid, fatty acid/lipid, mineral and vitamins it requires.

These vary in quantity and quality dependent on the individual floral species...

What is very apparent in this table is that none of the species flower on an annual basis. The average flowering frequency is three years. Commercial beekeepers may not move their apiaries onto any one of these species for two to five years and even up to 10 years depending. Factors such as the degree of budding of the trees in question, alternative choice of flowering species elsewhere, distance from their base and the nutritional requirements and status of their bees at any particular point in time will influence the decision process.

Drought and flood events are also major factors influencing site utilisation. Season and proximity of follow-on flowering events will also influence site selection.

Apiary movement is strongly dependent on the nutritional requirements of the colonies at any particular time of the year. A colony of bees requires access to ample quantities of both nectar and pollen. These nutritional rewards are not necessarily obtained from the one flowering event. In fact, the norm is that they are often not collected from the same species.

Pollen provides to a honey bee colony the protein, amino acid, fatty acid/lipid, mineral and vitamins it requires. These vary in quantity and quality dependent on the individual floral species and the abundance of the species from which bees collect pollen and the seasonal conditions which may or may not promote the production of pollen and/or nectar, for that matter.

If beekeepers target a particular floral species due to its reliability in producing nectar, but the conditions prevailing at the time are not good for pollen, then a colony's population may and often does decline. This colony is then not in a suitable condition in relation to its population to be moved onto another nectar flow with little or no pollen available.

Thus beekeepers need to manage their colonies to ensure nutritional shortfalls are balanced and colonies are maintained in the best possible condition to target the events that are likely to produce the best financial outcome.

In summary, commercial beekeepers require a range of apiary sites that hold the potential to produce nectar and/or pollen to allow the beekeeper to have a choice of where to move apiaries, given most flowering events may only extend for six weeks. Some winter flowering events may extend over 12 weeks or longer.



»» IMPORTANCE OF APIARY SITES IN A COMPLEX SYSTEM

This is a very complex question as the species mix varies from one region to the next, even from one apiary site in a particular forest to the next site. What is apparent when viewing or analysing the commercial beekeeping industry is the need for 'long term' reliable access to a range of floristic species that have the opportunity to benefit honey bees within an economic travelling range of the beekeeper's home base.

There is only one published document that has estimated the number of sites in each land tenure (Somerville, 1999). The following table is reproduced from this study.

Table 3: Total number of apiary sites for each form of land tenure and an adjusted total to include estimates for non-respondents

Land Tenure	Figure From Census	Adjusted Figure To include non respondents
State Forests	4,226	5,365
National Parks & Wildlife Service	333	412
Crown Land	569	749
Rural Lands Protection Boards	2,349	2,972
Private Property	11,039	13,981
Total	18,516	23,479

This figure is now 15 years old. It is difficult to obtain current bee site data, but it is believed that the number of apiary sites in NP&WS land tenure has increased, the number of sites on RLPB lands has probably remained static and the number of sites on Crown Land has possibly declined. Crown Land includes RTA, Water Board. The RLPBs have now been converted to Local Land Services. There is no reason to believe that the use of private property sites has substantially increased or decreased.

What has happened since this 1999 study is the increased movement of commercial beekeeping businesses to target paid pollination services as a significant component of their income structure. In 1999 only 19% of the beekeepers responding to the survey indicated that they obtained any income from the provision of pollination services.

Since then there has been a steady growth in the demand for paid pollination services provided by commercial beekeepers. The growth in the area planted to almonds within Australia now places Australia as the world's second largest producer of this crop. Almonds are 100% reliant on honey bee assisted pollination. Other areas of increasing demand for paid pollination include apple and pears, cherries, blueberries, melons and seed canola.



»» IMPORTANCE OF APIARY SITES IN A COMPLEX SYSTEM

There has been a steady growth in the demand for paid pollination services provided by commercial beekeepers.

This has led to a general trend by beekeepers to consider the provision of paid pollination as a significant proportion of beekeepers' income. There are no studies to state to what extent this has happened.

Beekeepers have periodically utilised forested lands as a refuge from the widespread use of pesticides. Placing apiaries away from agricultural lands in years when plague locusts are an issue negates the problem by beekeepers of avoiding any pesticide used to control these pests.

The NSW Apiarists' Association Inc. believes that the importance of forested land in general to be such a high priority that an Association code of practice was compiled for members, "Keeping bees on forested lands – a code of practice" (prepared by FS Benecke).





»» THREATS TO FLORAL RESOURCE AVAILABILITY

The beekeeping industry has a clear objective of preserving native flora.

An extensive number of threats, past and present, have been identified by the beekeeping industry. They are:

- land clearing for agriculture
- forestry activities that remove flowering trees
- replacement of felled trees with pine and low pollen and nectar yielding eucalypt plantations
- fires, including hazard reduction and natural bushfires
- reduced and unseasonal flooding of river red gum forests
- reduction in vehicle access to quality apiary sites
- firewood harvesting
- salinity affecting the health of the available flora
- droughts, which reduce flowering and interrupt growth cycles
- dieback of eucalypt species
- agricultural practises that reduce the abundance of flowering weed species
- biocontrol of flowering weed species that are of major benefit to honey bees, e.g. *Echium plantagineum* (Patersons' curse)
- pesticide use on flowering crops that are attractive to foraging honey bees
- newer varieties of agricultural crops that are not as beneficial to honey bees
- urban sprawl and rural subdivisions removing mature vegetation and reducing the number of apiary sites. This also has safety concerns
- loss of access to native forests due to changes in land tenure between government departments
- reduced access to native flora on private lands because of a perception by some landholders that honey bees are harmful to the ecosystem and a threat to personal safety.

The beekeeping industry has a clear objective of preserving native flora. The beekeeping industry stands for and depends on the preservation of native flora and hence has much in common with those in the community whose values support nature conservation and the establishment of conservation reserves.



»» SECURE TENURE OF APIARY SITES

Commercial beekeepers build up a “working” knowledge of specific apiary sites within their operational range over many years.

Commercial beekeeping is a long term investment and participants tend to be involved for decades and are often intergenerational. Knowledge on the flowering cycle of melliferous flora is often passed down from generation to generation or is hard won by experience. There is very little published on the honey and pollen potential for different floral species, and the information that is available is of a general nature.

Commercial beekeepers build up a “working” knowledge of specific apiary sites within their operational range over many years. This compounding knowledge base allows the individual beekeeping business the ability to increasingly make informed decisions over time on where and when to move apiaries to new locations to maximise the benefit to the bee colonies.

This knowledge base allows the individuals within the beekeeping business to invest in capital and the bee hives themselves. A beekeeping business needs to invest in trucks, extracting plant, storage factories, workshop and bee hives. This amounts to a substantial financial investment by individuals.

It is a reflection of the commercial beekeeping industry that there are no corporate owned operations within NSW. This is probably due to the complex nature of the management knowledge required to conduct a long term commercial beekeeping business, the extreme working conditions and the very unreliable seasonal conditions which dominate the Australian climate.

Long term investment in commercial beekeeping is strongly correlated to secure access to reliable flowering species. Long term, in this context, may in fact relate to generational time periods.

The largest group of apiary sites exist within private property tenure. Beekeepers usually pay for these sites in kind with honey. Given the nature of the free market, there is nothing legally stopping another beekeeper approaching private property owners and offering them two buckets of honey where a site is currently identified as belonging to another beekeeper. There is no legal right to any private property site by the honey payment system.

What normally happens within the beekeeping industry is that once a beekeeper establishes that a private property already has a relationship with an existing beekeeper, the new beekeeper thanks the property owner for their time and removes themselves from the property. Thus, security of sites on the private property tenure is strongly recognised by commercial beekeepers.



»» SECURE TENURE OF APIARY SITES

Knowing who your beekeeping neighbours are is of major benefit when it comes to security in the biosecurity management area.

Another aspect of site security is having a working knowledge of the biosecurity issues surrounding certain areas or regions. There are a number of pests and diseases of honey bees which have the potential to cause major economic loss to any beekeeping business.

Not all businesses are equal in their ability to manage and control certain diseases, with particular reference to the fatal bacterial brood disease, American foulbrood. Wherever this is prevalent, many beekeeping operations will make a conscious decision to avoid such areas. This knowledge, again, is built up over time and experience by individual beekeepers working certain apiary sites.

Knowing who your beekeeping neighbours are is of major benefit when it comes to security in the biosecurity management area. Any actions that detract from this security increase the difficulty of maintaining a high level of biosecurity within individual beekeeping businesses.

Thus, any policy or actions by a government department, private property owner or corporation to remove 'long' term apiary site tenure will substantially reduce long term investment security within the commercial beekeeping industry.



»» NATIONAL BEST MANAGEMENT PRACTICE FOR BEEKEEPING IN THE AUSTRALIAN ENVIRONMENT

The Australian beekeeping industry has to ensure that it is doing everything in its power to eliminate and minimise its potential impact on the whole Australian environment.

The Australian beekeeping industry has long recognised the ideal of minimising any impact of their activities on the greater environment.

The formalising of a set of national best practice guidelines for beekeeping in the Australian environment demonstrates to the whole community the commitment that the Australian beekeeping industry has to ensure that it is doing everything in its power to eliminate and minimise its potential impact on the whole Australian environment.

The guidelines were published in 2007, funded by the Federal government and involving a range of government agencies and beekeeping industry representatives from all states. Workshops were conducted in Queensland, New South Wales, Victoria, Tasmania, South Australia and Western Australia.

The goal of these guidelines was to minimise any impact of their activities on the greater environment. The 19 elements identified in the workshops as being important to achieve this goal are as follows (in no particular order):

1. Respect for heritage and areas of interest to indigenous Australians.
2. Display warning signs in appropriate places to announce proximity of an apiary to the public.
3. Maintain stocking rates to the floral conditions prevailing. Ensure colonies have adequate stored honey.
4. Ensure that the appropriate authorities have been notified of the arrival and departure of apiaries and they have the beekeeper's address and contact details.
5. Keep the area of the apiary clean and tidy.
6. Ensure appropriate availability of water when required.
7. Incorporate best management practice to reduce the incidence of swarming.
8. Maintain swarm traps in and around apiaries, particularly during the spring period.
9. Prevent the spread of soil pathogens such as phytophthora and weed seeds by vehicle movements. Clean footwear/shoes and vehicles after inspecting potential sites in high risk areas.





»» NATIONAL BEST MANAGEMENT PRACTICE FOR BEEKEEPING IN THE AUSTRALIAN ENVIRONMENT

The goal was to minimise any impact of their activities on the greater environment.

10. Regularly maintain and service vehicles according to manufacturer's recommendations.
11. No travelling on access tracks where there is a high likelihood of damaging the track.
12. Only the immediate area of the apiary is to be cleaned of combustible vegetation.
13. Only camp on site with approval of the property owner or manager. All presence of the camp site to be removed once the camp is finished with.
14. All fire warnings and restrictions are to be strictly adhered to and local fire codes should be taken into consideration whenever working bee hives.
15. Whenever the opportunity arises, provide information on the value of nectar and pollen producing flora to highlight the value of specific floral species.
16. Locate apiaries with consideration of the general public and livestock movements. Stocking rates in urban areas should be appropriate to the circumstances.
17. Keep records of flowering events.
18. Consider the most energy efficient manner in which the beekeeping operation is conducted.
19. Store, use and dispose of chemicals in the most appropriate manner, according to state, MSDS and label requirements. Keep chemical use to a minimum.

For a full copy of this document refer to the Australian Honey Bee Industry Council - www.honeybee.org.au



»» GOVERNMENT AGENCIES

The government agencies have differing site use conditions and only one government agency has a beekeeping policy.

As stated in the section of this document *“Importance of apiary sites in a complex system”*, possibly 40% of the apiary sites utilised by commercial beekeepers are contained on public lands. This represents a massive reliance on access to public lands by beekeepers to retain the future security of their business.

Accurate up-to-date figures on the number of sites for each land tenure are difficult to obtain. In nearly all cases there is no central point within each agency where this information is collected. Wherever a government department manages a parcel of land, there is a possibility of it being utilised as an apiary site.

Of course, there are parameters on what determines the suitability of a site for an apiary. A few of the major considerations are:

- floral resource value
- truck or vehicle access
- proximity of public
- suitable set-down site for bee hives

The government agencies have differing site use conditions and only one government agency has a beekeeping policy. National Parks and Wildlife Service (NP&WS) have a policy that clearly sets out their department’s position on commercial beekeeping for the state.

State Forests have been utilised by beekeepers for decades, but this agency does not have a beekeeping policy. Historically this has not mattered, but as the directions of departments change over time it is increasingly becoming apparent that the beekeeping industry should strive to negotiate a state-wide position on the use of lands managed by this agency.

Up until recently (2013-14), Travelling Stock Routes and Travelling Stock Reserves (TSR) were managed by the various Livestock Health and Pest Authorities (LHPA) (formerly Rural Lands Protection Boards). This changed with the amalgamation of three government entities including LHPA, Catchment Management Authority (CMA) and elements of the NSW Department of Primary Industries (DPI). In the previous structure there was no state beekeeping policy and under the new structure each of the 11 regions within the new department – Local Lands Service – will have the ability to have their own view on the use of TSRs for beekeeping.

Other government agencies or land categories occasionally utilised by beekeepers have been crown lands (not categorised), Roads & Maritime Services (RMS) reserves or road verges, Water Board lands and town commons. Much of this use has been at a local level between individual land managers and individual beekeepers. It has been very difficult to collect information on the use of these sites.



»» GOVERNMENT AGENCIES

Possibly 40% of the apiary sites utilised by commercial beekeepers are contained in public lands.

This represents a massive reliance on access to public lands by beekeepers to retain the future security of their business.

NSW National Parks & Wildlife Service – a division of the Office of Environment and Heritage

This department provides a list of 31 conditions of consent to the beekeeper. A fee, which is adjusted against the Consumer Price Index, is paid annually. In particular this department draws attention to Clause 5 – Notifying Area Office when in occupancy of a site, and Clause 9 – Provide warning signage on site. The beekeeper must also provide proof of having current Public Liability insurance and be currently a registered beekeeper with NSW DPI.

NP&WS policy on beekeeping can be found on their web site. This was first posted in 1990. An important clause of this policy states that no new sites will be permitted on park lands dedicated under the National Parks and Wildlife Act (1974). While any apiary sites transferred from other lands tenures into national parks will be retained as per the policy – no sites lost historically or no new sites will be formed according to the policy.

State Forests

There is no policy on beekeeping by State Forest to the knowledge of the beekeeping industry. There is a list of conditions of consent similar to NP&WS. Total numbers of apiary sites as listed in the Forests NSW Annual Reports:

1997 - 98	3,843
2005 - 06	3,371
2006 - 07	3,363
2007 - 08	1,310
2008 - 09	2,583

Local Lands Service (formerly Livestock Health & Pest Authority)

This new agency continues to reissue site renewal notices to beekeepers. The conditions of use list 12 points to be adhered to. Some of the specific points include: annual fee payable on receipt of permit, beekeeper to erect a suitable sign or notice providing a warning of the presence of bee hives and the beekeeper will have a current public liability insurance policy covering their beekeeping activities.

With the transition from LHPA to LLS there has been some confusion on the issuing of apiary permits on reserves that are vacant. This appears to be a decision that is occurring at a regional level rather than a state level.



»» REFERENCES

- Australian Honey Bee Industry Survey 2006-07. Rural Industries Research and Development Corporation, Canberra 2008.
- Keeping bees on Forested Lands. A Code of Practice. Prepared for the NSW Apiarists' Association Inc . By F.S. Benecke [undated, circ. 1997].
- Law B, Mackowski C, Schoer L, Tweedie T (2000). Flowering phenology of myrtaceous trees and their relation to climatic, environmental and disturbance variables in northern New South Wales. *Austral. Ecology* 25, 160-178.
- NSW Department of Primary Industries, Beekeeper Registration Statistics Report as at 5 September, 2014.
- Somerville D (1999). Floral Resource Database for the NSW Apiary Industry. Rural Industries Research & Development Corporation. Pub. No. 99/174.
- Somerville D (2007). National Best Management Practice for Beekeeping in the Australian Environment. The Australian Honey Bee Industry Council.
- Somerville D (2010). Forestry Plantations and honey bees. Rural Industries Research & Development Corporation. Pub No. 10/076.

