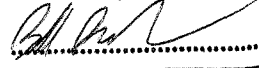


K.I. BEEKEEPERS ASSOCIATION

President: B. Davis

Secretary: E. McAdam

Submission No:	77
Date Received:	29/6/07
Secretary:	

29th June, 2007

The Secretary,
Agriculture, Fisheries & Forestry Committee
House of Representatives,
P.O. Box 6021,
Parliament House,
Canberra ACT 2600

Dear Sir,

Please find attached: Submission from the Kangaroo Island Beekeepers Association to the House of Representatives Agriculture, Fisheries & Forestry Committee inquiring into
"The Future Development of the Australian Honeybee Industry"

Our Association is an affiliated branch of the South Australian Apiarists Association, Inc. and represents apiarists on Kangaroo Island, both commercial and hobby beekeepers.

Kangaroo Island is particularly significant in conservation and heritage terms, being declared by the State Government in 1885 as the sanctuary for the pure strain of the Ligurian honeybee (*Apis mellifera ligustica*). Kangaroo Island is now the only place in the world where the pure Ligurian honeybee exists in a natural environmental niche.

Kangaroo Island honey is produced in the main from native vegetation sources and marketed as being from a pristine environment.

The industry is developing a regional brand status, with a number of beekeepers either formally accredited as suppliers of organic honey, or undertaking the qualification period to change over to certified organic production.

Kangaroo Island has also been nominated by the State Government to remain free of genetically modified crops as the geographic isolation provides a natural barrier to accidental cross-pollination enabling Island farmers to access a market for GM-free crops at a premium price.

This submission was prepared by the Executive Committee of Kangaroo Island Beekeepers Association together with input from two past presidents. Contact details of contributors are:

President:	Brenton Davis
Vice President	Shawn Hives
Secretary	Betty McAdam

Other contributors:

Peter Davis
David Clifford

We would welcome an opportunity to meet with the Committee to discuss our submission and show them the uniqueness of the Honeybee Industry on Kangaroo Island.

Yours faithfully

Betty McAdam
Secretary

NB. This submission is being lodged by email with a confirmation copy being forwarded by mail.

**Submission from the Kangaroo Island Beekeepers Association
to the House of Representatives Agriculture, Fisheries & Forestry Committee
inquiring into
“The Future Development of the Australian Honeybee Industry”**

Question 1

Its current and future prospects.

The apiary industry on Kangaroo Island has enjoyed a marketing advantage due to it being marketed as a regional food, from pristine vegetation areas and because of the public support for conservation of the Ligurian bee sanctuary.

This sanctuary was originally created due to the foresight of early South Australian Parliaments and has been maintained through the efforts of subsequent government authorities, Island beekeepers, and residents and tourists who appreciate the value of conservation of the genetic resource for future generations, both for agriculture and apiarists worldwide.

Queen breeding has always been a potential for increased value and the Bee Farm conducted by the South Australian Government did valuable work in encouraging out-breeding to improve the genetic viability. Subsequent Island apiarists are continuing this work.

Kangaroo Island may also be the only place in Australia successfully collecting and marketing raw propolis for the past 10 years through a joint project with all Island beekeepers. This is exported through an exclusive marketing agreement and is processed and sold in Japan as propolis derived from the Kangaroo Island Ligurian bee sanctuary.

Papers are being presented at the Biennial International Apimondia Convention being hosted by Melbourne this year based on Kangaroo Island genetics and on biologically active properties discovered which are unique to Kangaroo Island propolis.

Question 2

Its role in agriculture and forestry.

Kangaroo Island is in a unique position, as the oldest bee sanctuary in the world, because of the geographic isolation. Hives cannot be migrated to and from the Island and have restricted access to National Parks. Many apiary sites are located on farm land for bees to access nectar sources from shelter belts and remnant scrub. These sites also ensure that bees are available to pollinate conventional crops, which is of benefit both to the farmer and beekeeper.

There are insufficient hives on Kangaroo Island to provide the recommended stocking rate for pollination of crops, so there is great potential to increase hive numbers in turn providing benefit for agricultural crops through pollination.

Native vegetation flowering on Kangaroo Island is also attractive to foraging honeybees providing a valued product for export and the Australian domestic market. The Ligurian honeybee (*Apis mellifera ligustica*) population existing outside of managed hives fluctuates dramatically due to seasonal variations in food supply as honeybees cannot migrate without abandoning their young, whereas alternative pollinators such as birds travel long distances between nectar sources. Natural selection for survival traits therefore plays a very important role in the bee sanctuary and provides a benchmark for measuring genetic drift in managed honeybees.

Australian floral species relying on pollination must provide copious quantities of nectar to ensure pollinators are attracted to blossoms, and honeybees respond to this by storing surplus honey for harvesting. Native bees are also pollinators and co-exist with honeybees as during times of surplus there is plenty for all. However, conditions suitable for management of honeybees also favour native pollinators.

Question 3

Biosecurity issues.

Biosecurity is at the heart of the conservation of the genetic resource of the Ligurian honeybee. Kangaroo Island honeybees are free of the two major bee larval diseases, American Foul Brood (AFB) and European Foul Brood (EFB). The maintenance of the gene pool would be threatened if these diseases were introduced onto the Island.

The Kangaroo Island honeybee has been the subject of a number of research projects. We draw the committee's attention to the following conclusions reached from research carried out in previous years:

- “The pure race of gentle Ligurian honey bees of Kangaroo Island must be preserved and used for research for the benefit of beekeepers throughout the world. The continuing development of agriculture reduces beekeeping opportunities and quiet bees are essential to work with in rapidly changing and reducing areas of natural native vegetation.” (Eckert J.R. 1959 The Kangaroo Island Ligurian bees. *Gleanings in Bee Culture* 86; 660-663, 722-725.)
- “This is a unique sanctuary of pure strain, *Apis mellifera ligustica*, and these bees are of extraordinary value for scientific research, and for practical beekeeping and no effort must be spared to protect and preserve the world’s only remaining and pure strain honey bee colony on Kangaroo Island”
(Woyke, J. 2976 Population genetic studies on sex alleles in the honey bee using the example of the Kangaroo Island bee sanctuary. *Journal of Apicultural Research* 15 (3/4): 105-123)
- “They will become of high value for breeding and genetic work and a priceless asset in the international field of apiculture. Thus the act of 1885 was an amazing and wise legislation far ahead of its time and it is only now being recognized in its full meaning and significance.”
(Ruttner, F. 1976 Isolated populations of honey bees in Australia *Journal of Apicultural Research* 15 (3/4): 97-104)

The South Australian Government has declared an embargo on all bee goods and second hand bee equipment being brought to the Island, in support of the Ligurian bee sanctuary. However funding has been extremely limited and publication of the embargo and the reasons for enforcing this has been left to the Island beekeepers and other agricultural organizations.

In the event of varroa mite and other exotic diseases reaching Australia despite strict quarantine precautions, the secondary quarantine cordon around Kangaroo Island will be even more vital to preserve the genetic resource of *Apis Mellifera Ligustica*.

Enforcement of the embargo is the responsibility of P.I.R.S.A. but there is no procedure for checking incoming vehicles or passengers for prohibited goods and detection of breaches has been by liaison between Kangaroo Island Beekeepers Association and the Apiary Officers of P.I.R.S.A.

This situation is patently inadequate to ensure honey containing spores of the bee diseases is quarantined from Kangaroo Island, and infection could occur by exposure of discarded honey containers of mainland honey to honeybees. Hives are constantly monitored by the Kangaroo Island beekeepers and periodically by the Apiary Inspector for signs of disease and hives suspected of containing infection have been destroyed by fire in recent years. No infection has been found by continued monitoring of managed and feral hives. Honey is tested annually in South Australia for the presence of AFB spores and all tests on Kangaroo Island honey have proved negative.

Kangaroo Island is a quarantine zone for a number of agricultural crops, such as potatoes, and a combined biosecurity program with agricultural interests is essential to preserve the Island’s geographic advantage for disease control.

We note that there is a role to be played by the Natural Resources Boards created by the State Government and are aware of signage being prepared for display at terminals from which access to Kangaroo Island is facilitated.

Question 4

Trade issues.

The potential for exports of queen bees from an area certified free of the major bee diseases is immense. Discussions have taken place with United States apiarists and potential markets are being explored. Queen bee breeding as a major apiary resource for Kangaroo Island is still in its infancy and depends upon support for the protection of the Ligurian bee sanctuary and the disease free status.

Pollination fees for many crops, including canola, are an important income source and hives may be migrated considerable distances to provide the benefits of pollination to crops flowering successively across the cropping zones.

As a distinctive regional food, Kangaroo Island honey is able to access markets both domestically and for export and the export demand is far greater than the Island apiary industry is able to supply at least for the next several years. Expansion of hive numbers and entry into the apiary industry by new apiarists is occurring and is supported by our members with an information and advice network.

Kangaroo Island is a tourist destination known world-wide for its pristine environmental conditions and native wild life. It is also famed for production of gourmet food products such as free range chickens, bush tucker foods, eucalyptus oil products and gourmet meats, as well as the honey produced by the Ligurian honeybee (*Apis mellifera ligustica*) from the flowering eucalyptus and native vegetation species.

The high profile of the Ligurian bee sanctuary and market demand for the quality honeys produced on Kangaroo Island has been recognised by inclusion on the BankSA Heritage Icons List (Attachment 1)

It must be pointed out that the benefits provided to agriculture by pollination far outweigh the actual market value of the honey produced

Question 5

The impact of land management and bushfires.

Approximately one-third of the Island is dedicated as National Parks. It is not uncommon for fires to commence by lightning strike deep within the National Park and to build to such intensity that property and lives are put at risk when it escapes onto private property.

Kangaroo Island Beekeepers believe that fire management must be by use of controlled reduction of fuel load and by early action directly on the starting point of the fire. We point out that controlled burning enables native fauna to move out of danger and further revitalizes the floral sources by enabling dormant seeds to germinate.

Although current government policy does permit utilization of nectar resources within National Parks by managed bee hives, access on Kangaroo Island is limited. We submit that access to nectar sources by managed hives is not detrimental to conservation and preservation. We believe the present management policy should be reviewed. Pollination by honeybees is effective in increasing viability and numbers of seeds of native species, just as much as it is for exotics. Managed hives are migrated to areas of profuse flowering and then removed, in order to access continuous nectar flows and hence increase honey production.

Current policy by local National Parks Staff does not permit access to Kangaroo Island national parks even for the purposes of trapping and removing swarms. If access was granted, beekeepers would be able to reduce the number of naturalized swarms by attrition, as occurs elsewhere on the Island. Capture of swarms plays an important role in avoiding inbreeding which is a factor in genetic drift and we note that the Memorandum of Understanding between National Parks & Wildlife and S.A. Apiarists Association "Partnership in conservation and industry" dated 9th September, 2002, specifically states that access to the genetic resource of the Ligurian honeybee population within Flinders Chase is appropriate.

We draw the Committee's attention to the research conducted by Dr. David Paton in the Ngarkat Conservation Park. This Park was set aside for conservation at the request of apiarists to enable managed hives to access nectar sources and pollen, both for honey production and to maintain strength to pollinate commercial crops. The research concluded that there was no detrimental effect to native pollinating species from managed hives.

(NOTE- *"Impact Of Commercial Honeybees on Flora and Fauna In Ngarkat Conservation Park"* A Report for the Rural Industries Research and Development Corporation by Dr David C Paton, University of Adelaide, March 1999, RIRDC Publication No 99/15, RIRDC Project No UA-1H)

Question 6

The research and development needs of the industry.

Kangaroo Island beekeepers support research into the properties of honey and investigation of apiary practices. Kangaroo Island honey has been contributed to the research currently being conducted on therapeutic properties of honey and Kangaroo Island propolis is being analyzed for biologically active compounds. This research is being carried out at Sydney University.

Other research into pollen has also been conducted by Manning, Western Australia.

We support grants being made available for research. Similar research is being conducted in other countries with flow-on benefits to marketing of bee products when unique compounds can be identified with therapeutic qualities. Research worldwide into propolis is successfully demonstrating very wide spectrum antibacterial and antimicrobial properties.

Question 7

Existing industry and Government work that has been undertaken for the honey bee industry.

Co-operation between the apiary industry and Government is normally by way of a consultative committee. Such committees are only effective if the advice proffered is considered by the Government of the day, and if approved, introduced effectively.

Much of the pronouncements of policy by all Governments in Australia have foundered through subsequent inertia. It must be noted that the South Australia Apiary Section is already understaffed and detection and control of bee diseases is a State-wide priority.

It is appropriate for the State to provide infrastructure for monitoring and enforcement of its laws and regulations. Such infrastructure is financed from the taxation raised from the community, including business enterprises. It is also appropriate for the State to direct that contributions towards such costs be made by certain sections of the community.

Preservation of the genetic resource as part of the world heritage for future generations has been assisted by the geographic isolation of Kangaroo Island and the support and commitment of Island residents and tourists. The burden of disseminating information and monitoring for inadvertent breaches has been borne by the residents of Kangaroo Island including the members of the apiary industry.

Should this bee sanctuary be breached by failure to provide funding for adequate enforcement of quarantine protocols, the genetic heritage is in danger of being lost for all time. This would be a tragedy for the apiary industry worldwide, for agriculture and for conservation of the genetic resource of *Apis mellifera ligustica*.

29th June, 2007

Kangaroo Island Beekeepers Association,

Attachment 1: S.A. Icon poster

ADDITIONAL INFORMATION HELD BY THE COMMITTEE

ATTACHMENT TO SUBMISSION NO. 77

ATTACHMENT:

Bee's Knees