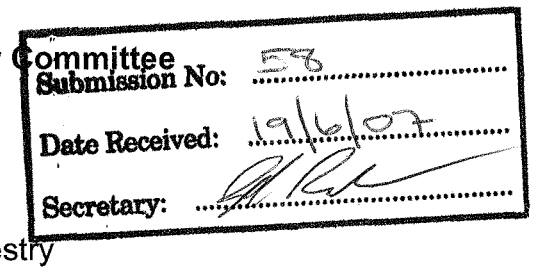
The Secretary – Agriculture, Fisheries and Forestry Committee
House of Representatives



Submission

House of Representatives
Standing Committee on Agriculture, Fisheries and Forestry
New Inquiry - future **development of the Australian Honey Bee Industry**

Prepared by: Fewster Family - third generation beekeeping family. (**Appendix 1**)

Western Australian owned and operated family business's by:

- John & Kerry Fewster
- Stephen & Roxanne (1) Fewster
- Paul & Roxanne (2) Fewster

	KUYAN APIARIES	**&**	**WEST COAST HONEY**
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This submission will be based on the facts and experience, of three generations of beekeeping in Western Australian 1930-2007. In point form covering:

1 The current and future prospects.
2 The beekeepers roll in agriculture and forestry
3 Biosecurity issues
4 Trade issues
5 The impact of land management and bushfires
6 The research and development needs of the industry
7 Existing industry and Government work that has been undertaken for the AHBIC

It is noted that:

John is **Director of Wescobee**

Stephen is **President - AHBIC** (Australian Honey Bee Industry Council)

Committee member - Western Australian Beekeeping Section of the WAFF (Western Australian Farmers Federation)

- **Representative - Western Australians BCC** (Beekeepers Consultative Committee)
- **Board member - Apimondia 2007 Melbourne** (International Apicultural Congress)

Kerry is **Committee member** - "Jarrah Honey" promotion committee –
- **Organising Committee member** –
Australian - Asian Apiculture Conference 2005

We have read both AHBIC and Wescobee's submission and endorse both submissions. (References are used from these submissions where indicated)
The RIRDC "Honey Bee Linkage" workshop held in April 2007 and Australian Government Rural Industries Research and Development Corporation, "Honeybee R & D Plan 2007-20012", has also been read and we endorse these findings and should also bee taken into consideration as part of our submission.

1 Current and future prospects of the Honey – Beekeeping Industry of Australia.

The future is very bleak with the threat and loss of:-

- **Natural resources** - due to restricted access and usage of Nature Reserves, National parks, Conservation Parks, Timber Reserves, natural resources, drought and bush fires.
  Beekeepers need to be guaranteed that they have future access to natural resources. 90% of our (Kuyan Apiaries) honey production is from native trees and native coastal reserves.

  Honey and Pollen in shorter supply due to removal and death, due to lack of water and burning of large old trees and bushland eg - Tuart trees, Redgums, Whitegum, Jarrah – Banksia, Mallee trees and Wildflowers – (coastal heath country)
  Older trees produce larger canopies equating to larger collections of honey and pollen – necessary for the hives to survive and for beekeepers to work them.
  The coastal heath country – the loss of this country would have a significant effect on our bees. It is ideal country for wintering our bees with the flowering of many smaller plants that produce enough pollen to carry the bees over until spring when more pollen producing plants contribute to building up our hives ready for shifting onto eucalypt flows and pollination.

- **Global Warming** – pollution and burning. Fires have an impact on Global warming and this practice should be looked into.

- **Urban sprawl** – moving further into the country each decade. Natural wetland that we are seeing being filled in the city is sacrilege. The powers to be should be leaving natural bushland belts, which would make fantastic areas for our native flora and fauna. e.g Those who had the foresight to protect and keep Kings Park (WA) as it is today need to be commended.
  We have seen so much natural bushland flattened for housing and spread some 20 odd kilometre's in the past 30years.

- **Subdivisions of rural land in Regional areas** - We are seeing large parcel of farming land being subdivided for small intensive farming e.g. Olives Vineyards Citrus and people looking for alternative lifestyle.
  Once again Natural nature strip should be kept. Only land that has already been cleared should be used for market gardens etc.
  No more clearing of natural bushland should be allowed.
  Goats should be banned on coastal fragile areas.

- **Clearing** – agricultural lands and clear felling of natural forest areas. The old system of removing mature suitable trees for timber is the best practice.

- **Water** – caused through drought, over allocations of ground and underground water for irrigation for commercial market gardens, olives etc. (Study/research is currently being done in the Gingin area as to usage and where the water is going) The tapping of underground water supplies for city use!!
  This year we have seen many areas of tree and natural bush land dying. Banksia and Parrot bush are most effected mainly in low-lying areas – up to 100 klms north of Perth.

- **Competing against world market and third world countries** with low wages and production costs.
  We need to be more competitive in today's world markets.
  More expertise in required in this area.
  Education on the medicinal side of hive products and the benefit's and the low cost needs to be sold to the every day person and professionals. I know it is a big job ahead, when you are competing against multi million dollar pharmaceutical companies.

- **Increased expectations of the industry and beekeepers** – over the years we have seen the role of the beekeeper change with more expectations and qualifications required. The cost of setting up to meet Quality Assurance conditions, extra paper work and today's expectations of small business in general. **e**.g forklift driving certificates, work safe, Quality Assurance and submission writing to name a few.

- **Profitability** with today's honey prices being below productions cost and no recognition of the value of pollination, the question is asked as to how long the beekeeper can survive. **I think it is the beekeeper who is the unpaid work** at present. **(Appendix 2)**
  Paul our youngest son is currently back working in the building industry and Stephen is picking up work in the Olive industry.
  It is fortunate that both the boys are qualified Paul as a Carpenter and Stephen a Butcher.
  We look at diversifying into package bees or queen rearing. But how long for?
  If the Varoa mite or other disease enter the country our market advantage will soon disappear.

- **The Beekeeper** We are seeing a decline in the professional beekeeper. There are only a few beekeeping families left in the industry where important knowledge is passed on.
  There are currently problems with employing and educating young people in the industry.
  The Education of beekeepers of best practice's and an educational program for young and interested people who wish to join the industry is required.

The current and future - positive side of the industry is:-

- At present **Western Australian honey and by products** of the hive are all **natural and highly regarded clean and green products**, produced from **our beautiful pristine National forest and State reserves.** How long this image will last is in question.
  We need to be very vigilant with our quarantine laws.

- **No chemicals are used in our apiaries** and all products from the hive are of high quality compared to the eastern states and the rest of the world.
  We are only one of the few countries left in the world that are **free of major diseases and pests** such as the Varroa mite ,Tropilaelaps Acarine disease and hive beetle.
  Western Australia are free of Asian, South African and Bumblebees.

- **There are opportunities to:**

Export Queen bees	**Propolis**
Export Package bees	**Pollen**
Honey	**Wax**

Providing we stay free of major diseases.

- **More research** is required Western Australian honey, propolis and pollen.

- **More marketing research** and promotions of our quality products.

We feel our unique products require specialised marketing skills
One does wonder at times, when you are competing against the rest of the world if there is the threat of someone sabotaging our industry.

Pollination of crops requires the educating of primary producers of the importance of pollination. The important role the beekeeper play's will then be acknowledged and receive appropriate payment for services provided for pollination

(Appendix 3)

The Beekeeping industry in the role of agriculture and forestry.

- Pollination is so important to major crops. This has only recently been recognised in dollar terms in America with the lack of bees due to the loss of feral bees and Colony Collapse Disorder.

- Honeybee pollination is essential for some crops, while for others it raises yield and quality. Honeybee pollination provides significant value to Australian horticulture and agriculture with services being valued at $1.7 billion per annum in 1999-2000 for the 35 most important honeybee dependent crops. When other crops, including pastures such as lucerne and clover, are added this estimate becomes even larger. (*Ref AHBIC submission)*

- With "clear felling" and clearing that has taken place in our national forest we have seen a decline in natural undergrowth where small birds and insects live that help to pollinate our natural bush lands. Our bees now play a larger role within nature, pollinating plants for future regeneration.

- The honeybee industry's gross value of production is between $60 and $65 million per annum. Around $45 million of this value comes from honey production, with the remainder coming from other products such as paid pollination services, beeswax production, queen bee and packaged bee sales, pollen, bee venom and propolis. *(RefAHBIC submission)*

Biosecurity issues

One of a very high priority to the industry.

- **Incursions** of other bees – Apis Cerana, Apis Dorsarta and other bees which may carry the Varroa mite and unwanted diseases such as Nosema and Tropilaelaps

Port and coastal surveillance and educating the public and everyone with interest in the environment and the future of agriculture in general, is a must.

Maybe we should all be keeping sticky strips in the bottom of our hives as they say this will be how we know they are here before we see the effects in the hive. (we were advised by beekeepers in the UK 1995. Only a mater of time before we get it too.)

- **Varroa Mite** – If this does enter Australia it will not only be another added expense to the beekeeper but will eliminate all feral bees and our beautiful native bees.
  We do not want to loose our Australian native bees. This would be a even bigger disaster.

- **AFB** needs to be dealt with although this has been ongoing for many years. If our bees are working well and strong they seem to deal with the disease better, but once they become week or neglected the disease spreads.
  There should be harsher penalties for those who neglected their unpaid workers the "honey bee."
  We were talking to New Zealand bee inspectors some years ago. They had the best method I have ever heard of.
  If an apiary was being neglected and found to be infected with disease. The beekeepers in the area and inspectors burnt the apiary. Problem solved.

As quoted in an interview by Dennis Anderson on Sunday 3rd June on the ABC radio.
Varroa Mite will not become just a beekeepers problem but also a problem for Agriculture in Australian. (and a RIRDIC workshop finding)
*The **"Honey Bee Linkage" Workshop May 2007** also backs up the importance of Biosecurity to save the industry.*

Trade issues

- Honey exports face ad valorem tariffs and non-tariff barriers. Ad valorem tariffs range from approximately one per cent to 248 per cent. However there is also evidence of non-tariff barriers faced by Australian honey exporters. prohibited quotas placed on the total amount of honey that can be exported to Korea, and cumbersome quality testing measures in Canada and Japan that are not placed on domestic honey producers. (Ref AHBIC submission)
- ***It is interesting to note that while attending Apimondia 1999 in Canada we were talking to some beekeepers from America. They have no testing for pesticide residue of their honey. They sold their honey direct to the public.***
- Australia has an enviable reputation in world markets for producing high quality, clean and green honey and honeybee products. However, this reputation is under threat from **contaminated honey being imported into Australia**, or exported to international markets, and also from **lax labelling laws on the country of origin**.

  (Ref AHBIC submission)

This has killed our image of our beautiful clean Australian honey with the Australian public of our industry. We still have people visiting our shop and talk about contaminated honey.

- Industry consultations suggest there is a large amount of royal jelly and propolis being imported into Australia from China by Australian health food distributors and then re-exported to Asia and Europe with a **'Made in Australia' label. This introduces huge risk into the industry due to the high risk of antibiotic contamination in Chinese products.** *(ref AHBIC submission)*
- ***We require better labelling laws***

1 **Impact of land management and bushfires**

Whilst we have a good repor with both Calm and the Dept of Ag - (new name now, this doesn't help with government changes all the time. I feel sorry for these guys) I know some beekeepers do not appreciate the different roles the department's play within the industry.
We do understand the need to burn for the regeneration of our natural bushland. However continual burning of some our fragile coastal country has seen it deteriorate over the years.
The time it takes for different species to recover from fire varies with honey and pollen productions being effected.
Eg **Banksia** trees take 3 (single flowers) 5 years and up to 8 years before they are in full production. Whilst the some banksias regenerate from burning others die completely and rely on seed regeneration.
Mallee tree, they regenerate from the bottom and it can be up to 10 years before they reach maturity with full canopy of flowers.

Controlled burning and bushfire have seen us loose many site unproductive up to 5yrs or longer. **(Appendix 4)**

There should be some form of **compensation due to bee sites** being burnt.
In 2000 we brought a beekeeper out to obtain good spring apiary sites on the coastal country. This coastal country is very important for building up our bees ready for the coming season.
The next year the country was burnt out. The farmers received compensation for loss of income and repairs to fences etc. They can recover in one year.
The beekeeper receives nothing in monitory terms. With lose of income of up to 5 years from burnt out sites. (site rental is waved for three years buy the C A L M)

Clear felling practices have had a devastating affect on our natural resources and the environment. The old way of removing trees for timber usage certainly had less impact on the natural small native vegetation. The loss of small the smaller vegetation sees the loss native flora and fauna.
The woodchip industry are rather cunning leaving belt of timber close to main roads for I am sure if the general public were to drive past and

see the effects of clear felling there would be more objections to it. To woodchip our beautiful trees is sacrilege.
It is 41 years since we have been to a Karri flow. The Karri did have the reputation of heavy flowering every five years. (There has only been very small area's that have flowered on odd occasions in the past 41years)

- Replacement of felled trees with pine and low pollen yielding eucalypt plantations – densely planted radiata pine and blue gum monocultures harvested before maturation are of little value to the honeybee industry. *(AHBIC submission)*

Research and development needs of the industry

Ongoing research is required on the benefits of honey and propolis for medicinal purposes. There is not enough research and or facts on the benefits to humans and animals of honeybee products from the hive.

- Droughts which reduce flowering and interrupt growth cycles- again there is evidence that Australia is entering a long phase of dryer than average climatic conditions similar to the first half of the twentieth century. *(AHBIC submission)*

Whilst we pay levies to three different bodies. I feel the industry should be streamlining all levies into one body.
Combined research of the honeybee, products from the hive and disease need to be ongoing.
Australias research on diseases, bees, honey, propolis is very limited, compared to the rest of the world. When I think of the research that goes on in other countries. The Bee Institute in Celle, Germany, the scientist, professors and students we have met from many countries over the past 12 years whilst attending World (Apimondia) and Asian beekeeping conferences.
There needs to be more interaction between universities, researches and the beekeeper on an ongoing basis.

Recent investment by industry and Government in the Australian honeybee industry includes:

The Australian Government - RIRDC booklet April 2007 shaping the future "Honeybee R &D plan 2007-" is acknowledge and all parties concerned are need to be commended for there efforts and findings. Let's hope there is strong Beekeeping industry in 2012.

(The following has been taken from AHBIC Submission)

- Industry Partnerships Program:
  - Stage 1 'Taking stock and setting directions'; and
  - Stage 2 ' developing a National Code of Conduct'.
- CRC Grant for Queen bee breeding - $200 000 to $300 000 grant;
- Emergency Animal Disease/Pest Response:
  - Work with Plant and Animal Health Australia;
  - National Sentinel Hive Program; and
  - Industry Training and Response.

- Honeybee R&D Plan – 2007-2012;
- Completion of the development of competency standards:
  - Training materials for EMS units and emergency response; and
  - Training for emergency animal disease/pest response.
- Sought funding for development of course materials for the remainder of apiary competency units; and
- Funding of a workshop to address industry issues and build on recommendations from the Australian Parliament inquiry into Rural Skills, Training and Research
-

Research, development and education needs (*AHBIC Submission)*
This section addresses:

- priorities agreed in the new five-year research and development plan;
- problems with the current funding level and funding mechanisms;
- supplementary research and development needs identified at an April 2007 national workshop;
- education and training needs, including:
  - overview of industry education and training needs; and
  - the need for national traineeship arrangements for the industry; and
- Recommendations.

Research and development projects are usually completed on a joint funding basis and honeybee research and development is conducted by a range of bodies including Departments of Primary Industries (DPI), universities and other research institutes.
Research and development plan's should include the following:

- pest and disease protection;
- productivity and profitability enhancement to lift beekeeper income;
- resource access security and knowledge;
- pollination research;
- income diversification, new product development; and
- extension, communication and capacity building. *(AHBIC Submission)*

The plan proposes that 45 per cent of available budget be allocated on pests and

Problems with the current funding levels and mechanisms

However, the industry's gross value of production falls dramatically after a sequence of drought years and with it, industry's capacity to attract matching funds from the Australian Government. The industry is currently suffering a 'double whammy' effect (less of its own levy resources and less matching funding) at a time in its history when it can be least afforded.

Furthermore, there is no provision in the current levy arrangements for Voluntary Contributions by industry to be recognised by the Australian Government and so attract matching funding for an approved project. Voluntary Contributions with Australian Government matching funding is

recognised in horticulture and is a very valuable part of the Horticulture Australia Limited research and development portfolio.

Supplementary research and development needs

Other avenues include research and development into breeding Varroa mite resistant bees and to reduce the development of resistance by mites to insecticides. suggest the following areas should be investigated:

- beehive health, production, ecology (environment), climate change, and pollination;
- higher education, including undergraduate and postgraduate;
- training, including vocational, registered training organisations and other types of training;
- staff development, employment opportunities;
- biosecurity, including quarantine, state issues, and policy development; and
- industry development and value adding.

In addition to these resolutions a clear strategy needs to be put in place on who will manage the industry's response to Varroa mite when it arrives in Australia. Emergency response cost sharing agreements are in place with Animal Health Australia.

Education and training needs

The CIE prepared recommendations for industry education and training in the 2005 Taking Stock and Setting Directions project and these remain valid industry priorities, they are:

- Developing an education outlook for the industry should be a priority in order to remove any impediments to planning for ongoing industry growth. Although a number of issues relating to education were identified, any formal education program developed to address the needs of the honeybee industry must be based on a detailed analysis on the expected future industry training and education requirements. This requires an understanding of both the current numbers and age structure of participants within the industry and how they might change in the future;
- Any formal education within the honeybee industry should be undertaken by registered educational organisations. This means the organisation must be able to demonstrate that it employs qualified personnel, that it has the necessary beekeeping equipment and class resources, and that the course is accessible to the industry. This will build greater confidence in educational standards within the beekeeping industry and help promote the standardisation of courses and the transfer of skills;
- Educational training needs to be accompanied with promotional activities to develop an educational brand that represents quality and consistency and is recognised throughout the industry;
- Educational programs should be standardised to ensure confidence and consistency, which will facilitate the transfer of qualifications and skills;
- The industry needs to invest in developing its training capacity to ensure the necessary educational infrastructure is available. This includes investigating current training programs and the possibility of augmenting them to encapsulate the full skills set of the honeybee industry;
- AHBIC should lobby the government for more educational funding, and provide advice to current and potential trainers on how to address various state requirements for funding; and

- Educating the government and public should address not only the perceived impacts beekeepers have on native flora and fauna but also the cost imposed on society by beekeepers using national forest. This will only be effective if the industry has a nationally recognised code of conduct relating to the use of national forests.

2 The need for national traineeship arrangements for the industry

The honeybee industry has recently had a range of competencies endorsed by DEST for the delivery of training to its members. The industry is dispersed right across Australia and it believes that there will be problems getting a critical mass of trainees together for specialised bee industry training. While a lot of the training will be based in the workplace there will be a need for trainees to interact with industry specialists and experts.

This is a real impediment to the up-skilling of the honeybee industry for future changes that are likely to affect it. It's therefore suggested that institutional arrangements be put in place for a Commonwealth traineeship to be run that would enable trainees to attend their training anywhere in the country. The traditional travel support and other arrangements for trainees would therefore be available to these trainees to attend the training.

The current state-by-state arrangements are unnecessarily bureaucratic and from experience in other industries, it seems that they are a real impediment to small industries like the Australian honeybee industry to have a critical mass of trainees for specialised training.

Recommendation 20 Resources be found to manage a Varroa mite outbreak and the resultant impacts on pollination dependent industries.

Recommendation 21 Australian Government matching funding for R&D not be cut in response to drought related drops in industry GVP.

Recommendation 22 Australian Government matching funding for R&D be extended to recognise industry Voluntary Contributions.

Recommendation 23 The recommendations made by the national workshop of 23 and 24 April 2007 in relation to expansion of the coverage of the new R&D plan be implemented.

Recommendation 24 That institutional arrangements be put in place for a Commonwealth traineeship to be run that would enable trainees to attend their training anywhere in the country (AHBIC submisson)

Bees: Australia's unpaid workers

The biq question is:-
"Are Beekeepers joining their workers as Australia's unpaid workers"!!

APPENDIX

(1) Fewster Family History

(2) Expenses involved with setting up for Quality Assurance "B-Qual" and statistics on honey prices.

(3) Extract from The West Australian Saturday May 5th

(4) Bee sites (Kuyan Apiaries) currently out of production due to control burning and bushfires.

FEWSTER FAMILY **Appendix 1**
HISTORY AND BEEKEEPING

1898 - John Fewster left the Newcastle coal mines in England to join his brother Robert in Australia. John's wife Sarah) and three (3) daughters, arrived one year later, 1899. They lived in Kalgoorlie until 1902 when the family moved to Muchea.

John, Sarah and family moved to Muchea and lived in an old tin shed near a swamp on Roberts property.
John Fewster purchased land about a mile inland from Robert's property along the Midland Railway line. This property was called "Greenside"
Life was very tough for the Fewster Family, and the struggle to survive began, with an additional six (6) boys and two (2) girls Eleven (11) children in all. Land was cleared and a few acres of vines, citrus, mixed stone fruit and fig trees were planted. Kangaroo meat, wild ducks, wild turkey rabbits and birds were plentiful in those days and the family was self sufficient and in later days, cows were bought and milked for cream which was sent to Perth for butter making.
For the family to survive John worked on the Midland Railway with a gang of four men, maintaining the line from Muchea to Gingin.

Robert Fewster *(1st Generation) (Uncle Robert) (& 1919)* found himself in financial difficulties and acquired a job working at "Cheriton" in Gingin. Planting some 10 acres of irrigated orange trees.

Robert later moved on to Harvey, at the request of the State Government of the day to plant Apple trees in the region and while in Harvey he became very interested in bees. This was the beginning of very long association of the Fewster Family with the Bee Keeping industry of WA

Uncle Robert had about 50 hives and the Fewster boys (Vince Jim Nelson (aged 13yrs)) would help their uncle with his bees.
When he died in 1919 he left his bees to his eldest nephew Vince.

The Fewster Boys were all good market gardeners and worked on the land – by growing fresh vegetable for the Perth markets and in later years as they acquired land went into wheat farming, citrus, sheep and beef and Apiculture.

Bee keeping, till this day continues to dominate through the generations of Fewster Families:

Nelson (*2nd Generation*)(left school at 13 in 1922)
67 years of beekeeping
(9.3.1908 - 26.10.1999)

Married Olive McGlew (one of 9 children)
22/9/1934 and moved to GINGIN
with 2/6 (two shillings and six pence) in their pocket.
(Olive gernoursly gave the 2/6 to the church collection on Sunday)

5 children - (3 boys & 2 girls)

NH Fewster & Sons - 1966
Colin David & John (left School at 13 yrs)

Kuyan Apiaries - 1994
John (*3rd Generation*) & Kerry Fewster
4 children – (2 boys & 2 girls)
1,800 hives
Stephen & Paul (*4th Generation)*

Nelson Fewster kept diaries from 1936 to 1999, where he recorded the location and production of his bee hives and recorded weather conditions and rain measurements.
Rainfall records show that the Gingin area would record an annual rainfall about 40 inches every 10 years, but that hasn't happened for 40 years.
(In 1994 diary entries were a little infrequent for a time, after loosing his wife, after 60 years of marriage)
Nelson diary entries were used recently to provide useful data for the Department of Agriculture on matters such as bush regeneration after fires and for a submission for the Regional Forrest Agreement.

In the early days a good day's work would have been a dozen or so 60-pound tins.
During the war Nelson was "manpowered" because the defence forces needed bees' wax in big quantities for ordnance shells. (every shell was coated with wax to minimise wear on the inside of the barrel)
1975 saw the highest Honey producing year - 16 44 - gallon drums of honey.
Our hive have been taken to many National Forest and Reserves throughout the state, depending on the seasons and honey flow. From as far north as Jurien Bay, east to Coolgardie and as far south as Pemberton for the "Karri" flow.

Beekeeping

1930 - honey was extracted on site, by hand spinning a few frames at a time, which was then placed, into 1 gallon tins . Beehives were kept close to home and only moved approximately 30 miles away from home due to the abundance of bush and large eucalypt trees.

1940 - 1950 a bigger truck to move bees further afield and the extraction of honey was done in a specially built mobile honey extracting caravan on site.
New honey extracting equipment would spin 30 frames at a time.
Bigger trucks are now used to move hive's around sometimes travelling distances of 650klm to productive sites due to extensive clearing.

1960-2000 having to move bees further afield due to lose of bushlands and trees slowly being removed or dying, clear felling in state forests and urban sprawl.
Purchased other beekeeping business to obtain good bee sites taking the number of hives to 1800.

21st century
2004 has seen a substantial increase in honey prices due to world and Australian shortage of good honey.

A greater shortage of honey, due to too not enough rain over the past few years to sustain the growth in our native bush land reserves and eucalypt forests.

Quality assurance issues and health control have seen changes in the extraction of honey now taking place in special equipped vans outfitted in stainless and /or large Central Extracting plants with spinners taking up to 128 frames at a time.

2005 has seen a dramatic decrease in the world price for honey due to Argentina and China entering the market in a big way.

2006 –2007 At the present time it is sad to see honey prices below the cost of production and it raises the question as to the future of professional/commercial beekeeping in Australia.
As "Western Australia" has the best/cleanest honey in the world we should be recognised as the best practice's for

producing top quality products from the hive and receiving top dollars.

2007/2008 Future honey flows are expected to decline due to loss of Banksia and Wildflower country.
Our coastal country, State Forest and Reserves are under pressure due to drought conditions and many large old trees dying.

Appendix (2)

Expenses involved in setting up Central Extracting plant – B-Qual

Building including:
- 1 Hot room
- 2 Cool rooms and motors – storage for control of wax moth.
- Delivery and storage area of box's and honey
- 3 phase power and power connection
- Cool room panels for extracting area – easier for wash downs
- Special floor coating
- Fork lift
- Boiler
- Protected lighting
- Extra box's (1,800) frames and foundation
- Rain water tanks for wash downs
- Plumbing & electrical work

Machinery - Uncapper Spinner Centrifuge (etc purchase 4 years prior)
Stainless steel piping
Storage tanks

B-Qual audits

$350,000 plus yr 1999 Capital outlay – a bit hard meeting payments with low honey prices these past few years.

Average price we have received for bulk Honey:-

1997/98	average $1.47 per kilo
1998/99	$1.59 per kilo
1999/00	$1.60 per kilo
2000/01	$1.54 per kilo
2001/02	$1.81 per kilo
2002/03	$3.40 per kilo

2003/04	$4.35 Per kilo (world honey shortage prices increased)
2004/05	$2.83 per kilo prices dropped dramatically Dec 2004
2005/06	$1.83 per kilo
2006/07	$2.01 per kilo Below production costs eg fuel $1.32 litre Electricity price increases and site rental increase.

Devastation of honeybees.JPG

Appendix 4

Appendix (4)

KUYAN APIARIES

Notification

CALM Sites Burns offs

54 sites in total

Date	Site Number	Time of year	Year
17.10.2002	2747	Spring or Autumn	2002/03

	2748	Spring or Autumn	2002/03				
	2979	Spring	2003	Palmer forest block			
	4957	Spring	2003				
	4958	Spring	2003				
	2306	Spring	2003				
	2959	Spring	2003				
	1918	Autumn	2003	Spring			
	1919	Autumn	2003	Spring			
	1977	Spring	2003				
	1969	spring	2003				
	4199	Spring	2003			**12 Sites**	
28.8.2003	405	Close proximity to sites		2003			
	2577						
	2752						
	1991						
	2449						
	2747						
2.9.2003	2678	Spring	2003				
	2306	Autumn	2003				
	2959	Autumn	2003				
	2269	Autumn	2003				
	2982	Spring	2004	1081	Near Munda Biddi Trail -		Notify when using
	4957	Spring	2004				
	4958	Spring	2004	(issued1979)	AS 1974	3111	Max's too close to us
	2982	Autumn	2004		AS 4396		
	4957	Autum	2004				
	4958	Autumn	2004	1838	Bullabulling Apiary sites		
	2678	Spring	2004	2215	Sandal wood harvesting and regeneration operations -		
	2457	Spring	2004	2213	Senior Forster - Benjamin Sawyer -		
	2458	Spring	2004		- Forest Products Commission		
	2449	Spring/summer	2004				
	2450	Spring/summer	2004			**15 Sites**	
	3181	Autumn	2005				
	3182	Autumn	2005				
	3183	Autumn	2005				
	2960	Autumn	2005				
	AS1920	Wild fire burn Jan	2005				
	1972	Rental waiver	wildfire 1/3/2003		Renew 2006		
						5 sites	
	1918	Autumn	2006				
	2747	Autumn	2006				
	405	Autumn	2006				
	3004	Autumn	2006	Spring Summer 2006			
	2794	Autumn	2006	Spring Summer 2006			
	2449	Autumn	2006	Spring Summer 2006			
	546			Spring Summer 2006			

	3002		Spring Summer 2006		
	3003		Spring Summer 2006		
	2897		Spring Summer 2006		**10 Sites**
2.2.2007	3004	Autumn	2007 Donnelly		
	2449	Autumn	2007		
	2749	Autumn	2007		
11.3.2007	2458	Autumn	2007 MUNDARING Cameron block		
11.3.2007	1437	Autumn	2007 MUNDARING Gallager Block		
20.3.07	324	Autumn	2007 Kent	Collie office	
	2977	Autumn	2007		
27.3.2007	4957	Autumn	2007 Worsley		
	1345	Autumn	2007 Palmer		
	2979	Autumn	2007 Lyons		
	2983	Autumn	2007		
	5777	Autumn	2007		**12 Sites**

Tiny Asian mite threatens our bee colonies and puts the crops they pollinate at risk

Aussie honeybees face devastation

TORRANCE MENDEZ

Scientists have warned that a deadly mite which has devastated honeybee colonies around the world is on its way to Australia where it threatens to cause havoc to commercial fruit and vegetable crops.

Fruit and vegetable lovers can kiss goodbye to cheap apples, almonds, cherries, pumpkins, avocados and sunflower seeds with the arrival of the blood-sucking creature, Varroa destructor.

These crops are mostly pollinated by wild or feral European honeybees which will be wiped out by the malignant mite.

Feral bees support $2 billion of agriculture each year. Fruit and vegetable growers around the country will probably resort to paying for beehives to pollinate their produce, forcing up food prices which inevitably will be passed on to shoppers.

CSIRO's former top entomologist Max Whitten said the mite would most likely arrive on a swarm of bees attached to a ship docking at perc.

"Australia is more dependent than any other country for feral or wild colonies of honeybees for pollination," Dr Whitten said. "We will probably lose all of these if this pest comes into Australia."

Bee colonies managed by amateurs are also likely to be wiped out. The commercial bee industry would probably survive but would switch from honey production to supplying pollination services to growers, forcing up the price of honey.

Yet there is hope.

CSIRO chief bee pathology researcher Denis Anderson, who correctly identified and named Varroa destructor, is looking for a new variety of mite-resistant European honeybee.

Flightless eight-legged Varroa destructor hitches rides on the backs of bees, interrupts larvae and transmits viruses. Asian honeybees, on which the mite originated, learnt to tolerate them, unlike the European honeybee which is dominant in Australia.

European honeybees, Apis mellifera, were introduced by settlers in the 1820s. About 50 years ago, the same bee also was introduced to Asia where one strain of varroa was able to reproduce on it, which doomed the bees.

As a result, European honeybee populations were driven down drastically in the US and Europe – and, latterly, New Zealand.

Australia is the biggest challenge left for the all-conquering pest.

Dr Anderson said the race was on to find the chemical signals that allowed Varroa destructor to breed on the bees, and switch them off.

Stephen Fewster, WA-based chairman of the Australian Honeybee Industry Council, said WA's remoteness had kept away many diseases, but he conceded it was a matter of time before Varroa destructor arrived.

Dr Whitten, who once chaired the Honeybee Research and Development Council, called in Australian Science magazine for a honeybee research agency.

A Federal Government workshop in April addressed the importance of honeybees to the rural economy.

The Honeybee Industry Linkages Workshop held in Canberra reported: "If honeybee pollination were to stop completely, large losses would be felt across Australian agriculture and especially in the horticulture sector, which produces around $3.8 billion per annum. "This is because approximately 65 per cent of horticultural crops produced in Australia require pollination services from honeybees."

"We will probably lose all of these if this pest comes into Australia."
DR WHITTEN