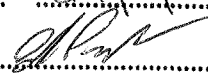


Submission No:	71
Date Received:	27/6/07
Secretary:	

Victorian Apiarists' Association Inc.

FOUNDED 1892 Reg No. 8347

"For the Advancement of Apiculture"

Publishers of *THE AUSTRALIAN BEE JOURNAL* (Monthly) Since 1918

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23rd May 2007.

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

COMMITTEE OF INQUIRY – THE FUTURE DEVELOPMENT OF THE AUSTRALIAN
HONEYBEE INDUSTRY.

SUBMISSION.

1.0 INTRODUCTION.

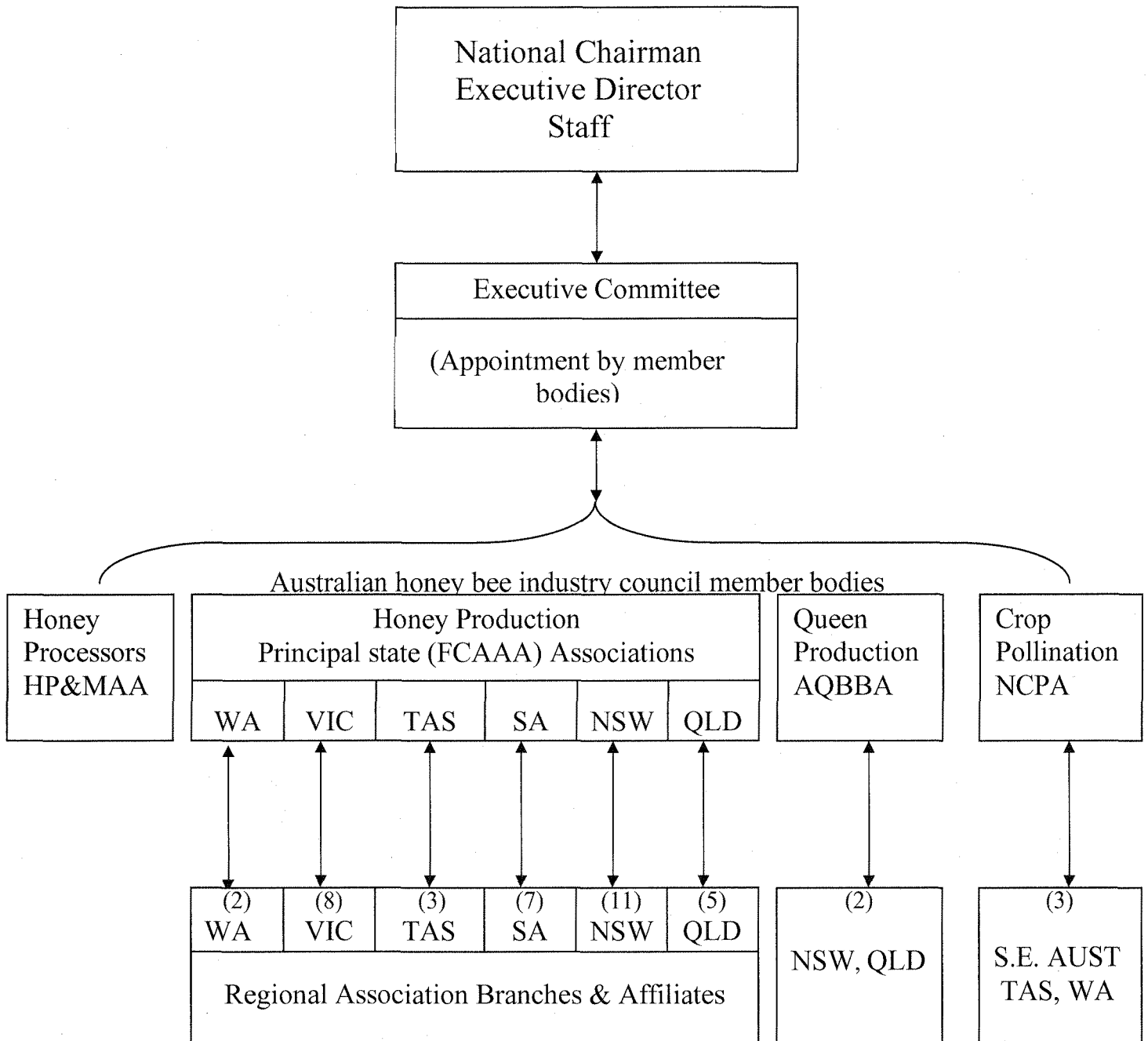
1.1 This submission, prepared by the Victorian Apiarists' Association Inc., (VAA) will provide commentary and evidence sequentially according to the advertised terms of reference. The VAA is the Victorian member body of the Federal Council of Australian Apiarists' Associations Inc. (FCAAA), which represents the honey production sector of the Australian Honeybee Industry within the industry peak body structure, the Australian Honeybee Industry Council Inc. (AHBIC).

Accordingly, this submission will focus on the delivery of information to the Inquiry that represents honey production perspectives.

1.2 Other national industry sector member bodies of the AHBIC are:

- The National Crop Pollination Association Inc (NPCA)
- The Australian Queen Breeders' Association (AQBBA)
- The Honey Packers & Marketers' Association of Australia (HP&MAA)

TABLE 1
 AUSTRALIAN HONEY BEE INDUSTRY COUNCIL INCORPORATED
 ORGANIZATIONAL CHART



- 1.3 The VAA welcomes the opportunity to participate in this Inquiry, building as it will on information and outcomes already assembled by the recent Rural Skills Training and Research Inquiry respective to the honeybee industry. Recognition of the key role honeybees perform in the production of food and seed in Australia and of the biosecurity threats confronting the maintenance of a future honeybee population with the capacity to necessarily contribute to the fertilization of 60% of the nation's food and pasture crops, were the drivers behind the Rural Skills Inquiry recommendations that:
- The Federal Government provide funding for the establishment of a CRC style entity for beekeeping and pollination, including development costs in the areas of research, education and bee breeding.
 - The Australian Government guarantee a long term future of the honeybee quarantine facility currently housed in the Eastern Creek Quarantine Facility or make alternative arrangements for a permanent site as a matter of urgency.
- 1.4 Given the terms of reference of the Rural Skills Inquiry could not accommodate the investigation of all the issues that are impacting on the viability and sustainability of the commercial beekeeping industry, and the capacity of its members to meet increasing demand for managed honeybee crop pollination services, it was greatly encouraged when the Federal Government announced it would conduct an urgent Inquiry into the future development of the Australian Honeybee Industry. The terms of reference, in the view of the VAA, are sufficient in scope to allow the assembling of a considerable body of pertinent evidence.
- 1.5 The VAA places on record its acknowledgement of the important role the Federal Government Rural Industries Research and Development Corporation (RIRDC) has played in assuming the mantle of facilitator since the Rural Skills Inquiry framed its recommendations for consideration by the Federal Parliament. RIRDC's competent organization and management of the honeybee Linkages Workshop which followed the Inquiry was outstanding. The bringing together in a productive manner such a dynamic group of stakeholders to focus on what is needed structurally to deal with a looming crisis not only for Australian honeybee populations, but one which has the potential to significantly and adversely impact on the productivity of so many of Australia's human and animal food producing industries, and the national interest, was a valuable function with potentially far reaching effect.

The commonality of workshop participant opinion and purpose was uplifting leading to the adoption of the seven key strategic pathways which now need further development, eventually to the point where an entity framework incorporating specific locations and prioritized programs for research, skills training other education and so on can be identified and costed. For the VAA, a key and somewhat unexpected outcome of the workshop was the enthusiasm generated for the establishment of a national alliance of stakeholder industries, embracing the small honeybee industry, and in partnership with the Commonwealth, to deal collectively with the task of putting in place programs that have the best chance of ensuring the sustainability of the Australian Honeybee Industry, and its honey production sector in particular, whose operations generate and maintain all managed honeybee populations that are used to provide crop pollination services to horticulture and agriculture.

2.0 SUBMISSION PREAMBLE.

- 2.1 Historically, of interest and relevance to this inquiry is that in 1991, the statutory Honeybee Research and Development Committee operating under the then chairman Dr Max Whitten (CSIRO), conducted a national workshop in Canberra on the economic viability of the Australian Beekeeping Industry. The subject has a familiar resonance with the present Inquiry, for almost all of the issues examined in 1991 are still with us in 2007, in one form or another. For example, Dr Whitten in his address to the workshop, had this to say:
“ the beekeeping industry in Australia is normally valued in terms of the gross value of honey, and other bee products such as wax, pollen, royal jelly, propolis, and package bees and queens for export. These all ‘bottom line’ at less than \$40m p.a. at the farm gate. The value of the industry directly through paid and incidental pollination of a wide range of agricultural crops and indirectly through feral bees, is estimated to be over \$400m p.a. by the most conservative calculation”.
- 2.2 The 1991 national workshop also addressed bio security risks for the industry, including the parasitic mite then known only by its type A classification, *Varroa jacobsonii*. The parasite and its natural host, an Asian honeybee known as *Apis cerana*, had entered Iryan Jaya via Indonesian trans migration, and was quickly on the move through P.N.G. and the northern most islands of the Torres Strait. As a consequence of the workshop, an elevated awareness of the risk was recognized by the Commonwealth, and increased surveillance and quarantine measures were implemented that have been successful in intercepting and dealing with incidents at several Australian ports and airports, until the current incursion of *Apis cerana* at Cairns, Queensland was discovered last month.
Research since 1991, (Anderson, CSIRO) a scientist of world repute investigating *Varroa* species, supported mainly by international sourced funding, led Anderson to discover that *V. jacobsonii* is not harmful to the European honeybee which is used by beekeepers throughout the world, including Australia, for honey production and crop pollination. Subsequent research by Anderson however has shown that the Korean strain or species of *Varroa*, named by Anderson as *Varroa destructor*, is extremely harmful. The parasite has now entered all major beekeeping countries in the world, except Australia, (in the light of present knowledge) causing serious adverse impacts on many primary industry enterprises that depend on insect pollination of crops to maximum yields, as well as the wider social and economic impact that has occurred, including the viability and sustainability of beekeeping industry participants.
- 2.3 The recent Rural Skills Inquiry provided a great opportunity for the Australian Honey Bee Industry through its peak body, the Australian Honey Bee Industry Council, (AHBIC) working collaboratively with a group of specialist industry people led by Dr Whitten, to put before the nation’s Parliament the seriousness of the situation. As mentioned earlier, the responsiveness by the Federal Government and Opposition, and the resulting elevated community awareness of what is at stake, has been very encouraging. It can be fairly stated, that without the opportunity provided by the Rural Skills Inquiry, appreciation of the *Varroa* threat to Australian honeybees, to the national interest, and to the honeybee industry, would have been much more muted.

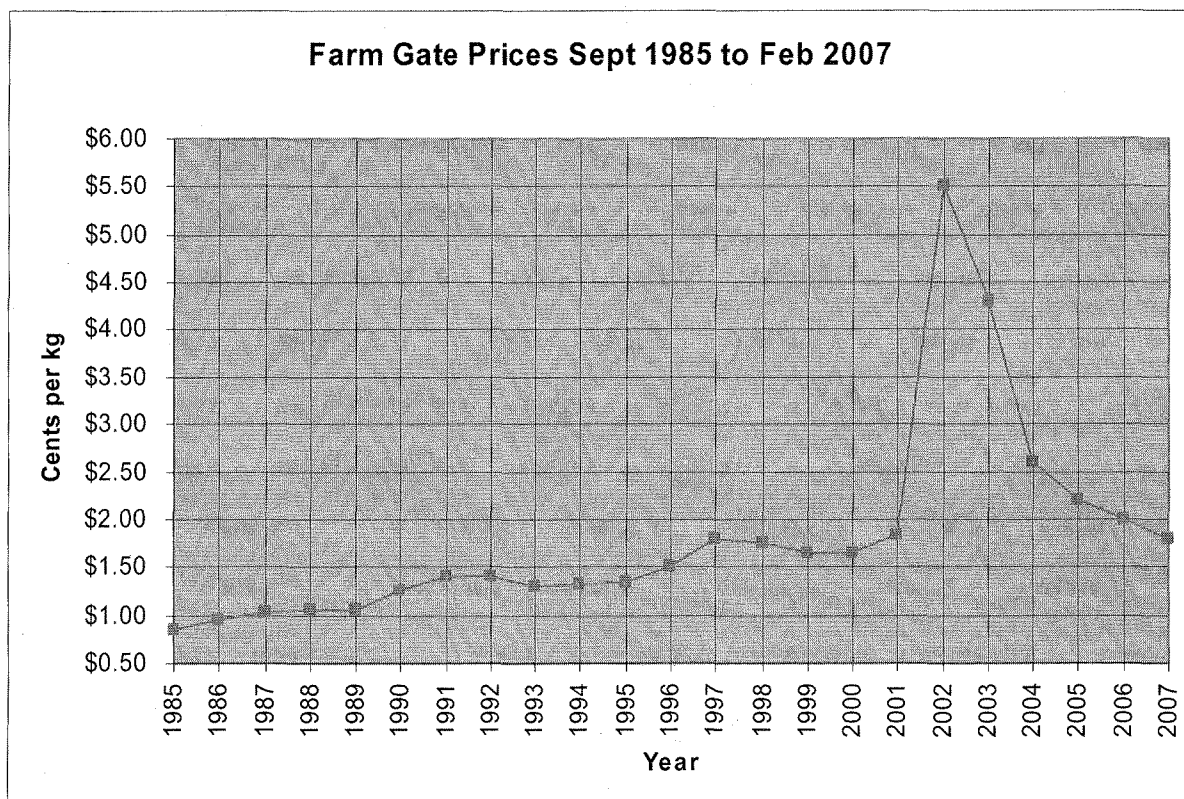
2.4 The 1991 HBRDC workshop also observed that historically, the key drivers of honeybee industry viability and sustainability were:

- Sufficiently robust farm gate prices to provide for, after cost of production, sufficient disposable income to sustain a reasonable standard of living and sufficient revenue for reinvestment in the business or elsewhere.
- Floral resource security. Because of the dependence of honey production on native plants (80%), principally eucalypts, the maintenance of access to native flora growing on freehold and public land through private treaty or state government licensing arrangements was of critical importance for sustained viability of honeybee industry participants.

In 2007, the business of a commercial honeybee industry participant is much more complicated by the emergence of other dynamics, and, while being around in 1991, they are assuming proportions of significance in relation to future prospects and for the future development of the Australian honey bee industry. This submission will attempt to adequately address these and the above issues.

3.0 TERM OF REFERENCE (I) THE INDUSTRY'S CURRENT AND FUTURE PROSPECTS FARM GATE PRICES FOR HONEY.

TABLE 2. FARM GATE PRICE MOVEMENTS.



3.1 Table 3 traces average Victorian farm gate prices received by honey producers from the year 1985 to 2006, a period of 21 years. The enormous spike in the graph occurred during the drought of 2002 – 03, because of supply shortages increasing demand. Some honey packers, to cover the short fall in supply, imported from overseas large volumes of honey, some of it of questionable quality and flavor. As a result, consumer confidence in the highly regarded product was severely damaged, and consumption declined dramatically. The return of farm gate prices to the historic trend line and lower consumer demand saw the further fall of farm gate prices from 2005 to February 2007 to the average prices of 2001.

TABLE 3.
FARM GATE PRICES FOR HONEY, FEBRUARY 2007

Colour Grading	Price		Price
Pf 0 - 39	\$2.05 per kg	Yellow box – grade 2 (Pf 0 – 49)	\$2.10 per kg
Pf 40 - 49	\$2.03 per kg	Blue gum South Australian (Pf 0 – 39)	\$2.08 per kg
Pf 50 - 54	\$1.95 per kg	River Red Gum (Pf 0 – 54)	\$2.08 per kg
Pf 55 – 59	\$1.85 per kg	Salvation Jane	\$1.75 per kg
Pf 60 – 69	\$1.65 per kg	Leatherwood	\$1.65 per kg
Pf 70 – 79	\$1.50 per kg	Canola/Turnip (Pf 0 – 39)	\$1.65 per kg
Pf 80 - 89	\$1.45 per kg	Banksia	\$1.15 per kg
Pf 90 – 109	\$1.15 per kg	Red Ash	\$0.60 per kg
110 & over	P.O.A	Carrot	\$0.60 per kg
Organic (BFA certified)	\$3.35 per kg	Crow Ash	\$0.60 per kg
Yellow box – grade 1 (pf 0 – 39)	\$2.10 per kg	White Mangrove	\$0.60 per kg

Source: Capilano Honey Ltd

Average farm gate price, February 2007 - \$1.83 per kg.

Note: Average price is an estimate only, analysis not taking into account respective grade volumes.

(grades 0 – 79 Pf, excludes low volume Leatherwood.

3.2 Up to date average costs of honey production, (statewide or national) to the VAA knowledge are not available. However, a number of studies over the years have been performed which provide reliable historic data, the extrapolation of which, to the present era define long term trends with a high degree of confidence. For example:

- The Economics Branch, Department of Agriculture, Victoria, conducted a survey in 1980 – 81 to show the economic performance of Victorian commercial beekeepers. The survey population was defined as all apiarists who operated 400 hives or more, and who earned at least 60% or more of their income from beekeeping. The study was partially funded by the Federal statutory Honey Research Committee of the time. Four strata of beekeepers were sampled, up to those operating 1,000 hives or more. Table four displays the survey average.

TABLE 4.
1980 – 81 SURVEY – THE ECONOMICS OF BEEKEEPING VICTORIAN DEPARTMENT OF AGRICULTURE.

	<u>Survey Average</u>		<u>Quartile range</u>	
			High 25	Low 25
Gross Income	\$	\$ 51,160	\$ 44,120	\$ 33,060
Variable Costs	15,920		20,410	7,250
Fixed Costs	18,350		21,130	4,600
Total Costs		34,270	39,110	12,900
Net Operating Profit		16,880	24,430	5,340

The average net operating profit of \$16,880 was the amount available to service:

- The owner's allowance for 1980 – 81, covering labor and management.
- Income tax.
- Business reinvestment in excess of depreciation.
- Repayment of capital, and interest on loans.

The summary of the survey in part, concluded:

"However, after allowing for the payment of an imputed owner allowance, the average return to assets figure was a negative value".

- 3.3 The Western Australian Department of Agriculture, Division of Agricultural Economics and Marketing, conducted a cost of production survey of a representative sample of Western Australian honey producers, for season 1989 – 99.

The survey, partially funded by the Honeybee Research and Development Corporation, was presented and discussed at the 1991 HBRDC workshop on the economic viability of the Australian Beekeeping Industry, earlier referred to in this submission.

The Committee of Inquiry should note that during the period of the survey, the average W.A. farm gate price for honey, at 86 cents per kg, lagged about 20 cents per kg below eastern states prices.

In its summary and conclusions of its survey the Department had this to say:

- “The cost of honey production for 1989/90 is estimated to be \$1.30 kg or \$1.40 kg. Income at 86 cents per kg for honey production is sufficient to meet the cash costs plus about half of the added allowances for the owner/manager plus capital costs.
- The survey year 1989/90 was an average one, there by indicating that most commercial beekeepers are not obtaining sufficient income to meet their total costs. Beekeepers are often reliant on other sources of income to supplement their beekeeping business.
- Continued disparity between costs and income will make it difficult for most producers to survive in the long term. Unless they can supplement their beekeeping income from other sources and/or run down the value of their plant and equipment.
- In addition to the costs, the honey industry needs to consider the question of marketing its honey. There appears to be an industry tendency to maintain loyalties with a honey packer when selling their product, which often precludes the consideration of alternative marketing methods”.

Of interest and relevance at this point, strategic goal outcomes of the 1991 Economic Workshop included opportunities for diversification existed, such as the delivery of structured crop pollination services, and the export of queen bee and package bee products. The workshop, also called on the industry leadership to seek the inclusion of honey bee crop pollination studies in graduate courses throughout Australia.

- 3.4 In 1998, the honeybee industry peak body at the time (FCAAA), commissioned a major study on the Economic Value and Environmental Impact of the Australian Beekeeping Industry (Gibbs & Muirhead). The document, while now in need of updating review, is still relevant today, examining and reporting fully on many of the issues that will be considered by the current committee of Inquiry. The report will be tabled during the public hearings for the subsequent consideration by the Committee of Inquiry

In its chapter, the Economic Role of the Industry Gibbs & Muirhead reported that the average farm gate price for honey across all states, except Tasmania, in 1996 was \$1.45/kg. They also reported that cash costs of goods and services to produce honey, excluding capital, represented 75% to 80% of total income, corroborating very closely to the data assembled for 1980 – 81 and 1989 – 90.

In February 2007, 11 years on from 1996, the average farm gate prices across all states except Tasmania at \$1.83 starkly confirms the long term trend of inadequate disposable income generation from honey production.

- 3.5 The widening gap between farm gate and retail prices accelerating over recent years, is further corroboration of the pressure being exerted on honey producers' disposable incomes. For example, through the 1970 decade, it was common industry knowledge that farm gate prices for honey ran at about 50% of retail prices. Early 2007 farm gate prices at \$1.83 per kg (table 2) were running at 20% of retail prices of about \$10 per kg.

The VAA has observed that in reporting to the Federal Department of Agriculture, Fisheries, and Forestry (DAFF), in 2006, the Agriculture and Food Policy Reference Group concluded that the best protection against excessive price margins is vigorous competition. The VAA submits however, that while honey packers are clearly exposed to strong, sustained competitive pressures for retail market share (which exerts sustained downward pressure on farm gate prices for honey), there seems to be much less competitive pressure between the large volume retailers of honey.

The VAA submits it does not have hard data to submit to the Inquiry in this connection but is informed that retail markups can be as high as 100% over wholesale prices.

The end result is, that too often and for too long, honey producers have been left holding the short end of the stick in regard to their capacity to achieve a fair return for business investment and labor, a scenario that is perhaps not unfamiliar with some other primary industry entities.

- 3.6 The VAA submits the Inquiry, after hearing evidence submitted by other parties, may be able to form an opinion about whether the tracing of the movement of bulk honey and its financial implications for stakeholders from the farm gate to the consumer is important, and in the interest of transparency, recommend such investigation be undertaken by an agency such as the ACCC or other entity as may be appropriate.

- 3.7 The VAA submits at this point, it understands the difficult commercial position in which some honey packers find themselves from time to time. In addition to domestic market competition pressures exerted by large retail outlets, those who are engaged in exporting significant volumes of bulk honey have to contend with the vagaries of overseas market environments. Importantly, the VAA acknowledges it does not know of any packing house management that does not want its respective suppliers to be successful in their trade. After all, producer success translates to security of supply of raw local bulk product.

The VAA also submits, the enormous spike in farm gate prices that occurred in 2002 – 03 as a result of supply shortages, (TABLE 2) delivering an increase of up to 200% for some specialty lines, created pressures on the honey packing sector, for the first time historically, to source large volumes of supply from overseas to maintain respective market share and fulfill existing contracts. The VAA acknowledges that some honey packers did not resort to importing bulk honey in their endeavors to remain focused on packing and marketing Australian produced honey. The VAA submits it is acutely aware of the capacity of Australian honey packing and retail houses to import large volumes of overseas product has potential to depreciate future prospects for producers. This issue will be further discussed under this Inquiry's term of reference for trade.

- 3.8 The 2002 – 03 spike in farm gate prices resulted in both short and long term benefits for honey producers. Short term benefit came in the form of welcome economic relief for the beekeepers able to produce reasonable crops during the severe drought, and longer term benefits where it allowed many producers to at last upgrade aging infrastructure and vehicles, including honey extraction premises. Given the long term endemic nature of inadequate disposable income that still prevails, the question has to be asked, how then has the honey production sector of the Australian honey bee industry been able to sustain its commercial operations for so long, over and above, obvious discounting of imputed labor and depreciation budget components?

To begin the answer to that question, the Committee of Inquiry needs to appreciate that historically, honey production sector participants are an extraordinarily resilient group of men and woman, inured by life times and sometimes, as found in family based operations, generations of experience working in a unique primary industry that relies on the husbandry of an insect that is managed to produce apiary products from principally the native forest and wood lands of Australia.

Commercial operations are necessarily based on the migration of apiaries several times each season as floral opportunities sporadically occur, very often hundreds of kilometers from the previous location.

Thus, successful operations rely on each operator's knowledge of the Australian bush, its flora, how the many natural dynamics including rainfall impact on the reproductive success of plant species, as well as a thorough understanding of the biology and behavior of the wonderful insect that have served man kind well through the ages, and with which man kind from all strata of the world community has developed such a remarkable affinity. Beekeepers love the creature they work with, they love the intimacy and sometimes the loneliness of the bush, they treasure the independence of their lifestyle. The work is hard, the hours are long. They have learned to be resourceful in overcoming all manner of operational difficulties, as well as dealing with protracted periods of low financial reward. Beekeeping for many has been as much a way of life, as a profession. It is not surprising then that very low average levels of debt has also been a factor of sustainability through the hard times.

The VAA submits however, that some evidence of structural change in the form of contraction of the honey production sector is now occurring as a result of sustained economic pressure.

For example:

- It has been reported that between 1996 – 97 and 2005 – 06, registered hive numbers in Australia have decreased by 68,300 hives, or 11.3%. (Primary Industry and Resources SA). The losses are reported to have occurred from the hobbyist and significantly, from the smaller commercial honey production strata.
- Consistent with previous economic study outcomes, where it has been demonstrated there are economies of scale for larger operations, many beekeepers have responded and achieved better sustainable outcomes.
- Small to medium sized operations have found the going much more difficult to remain viable. The consequence of economic pressure is seeing more producers marketing all or a substantial part of respective crops at the farm gate, at roadside stalls, or at public markets in the larger population centres.

- More large producer operations have now entered the established retail market as well, competing directly with the major packing houses.

3.9 The VAA submits there is clearly an emerging trend towards the development of an industry honey production sector with an increasing number of cottage industry style participants, punctuated by larger or more entrepreneurial type operations, more of whom will likely become honey marketers as well, landing product on both domestic and export markets.

Early in the 1990 decade, the FCAAA and the Honey Corporation of Australia (Capilano) conducted surveys to estimate the volume of honey marketed by producers. Both surveys produced national estimates in the 4,000 – 4,500 tonne range. To the VAA knowledge, no hard data exists for today's volumes but informed industry sources suggests the volume may be in the range of 8,000 – 10,000 tonnes. This represents an important information gap, the data for which needs to be assembled and applied.

3.10 The VAA submits, whether prospects for the economic production of honey improve or not, honey production will continue, must continue, if managed honey bee populations in Australia are to continue to prosper and maintain such a key dynamic that contributes to the productivity of 60% of Australia's human and animal food crops.

The VAA submits, however, that unless farm gate returns become rewarding, the Australian honey production sector will continue to contract and become less able to serve future expanding crop pollination requirements.

3.11 The opportunity for honey producers to diversify their businesses to generate other income streams, apart from honey packing and marketing, earlier discussed, have been important drivers of sustainability and enhancement of future prospects for some sector participants. For example:

- Farm crop pollination. Demand for services is increasing, and future prospects for this diversification are promising. The ability for the industry to provide crop pollination services will always be irrevocably geared to a prosperous honey production sector. Most services are provided from early spring to early summer (some pasture legumes are an exception), but honey bee colonies have to be maintained year round including over winter. The only economically feasible and practical way to do this over much of Australia is by migrating apiaries throughout each season to the sporadic honey flows when they occur in different forest and woodland and heath systems.
- Package bee exports. Opportunities exist for the market to further benefit medium to large honey production enterprises, particularly when the operations can take place within a reasonable distance of major international airports. The main constraint to market access are biosecurity issues and being able to assure overseas countries of product integrity. For beekeepers to enter this market some honey production has to be forgone. The bees are shaken from prosperous honey bee colonies, into specially designed containers, and air freighted to overseas markets. Apiaries from which packages have been taken need time to rebuild their populations to a level which will allow them to successfully overwinter and be productive again the following spring for honey production and crop pollination.

- There are diversification opportunities for a relatively small number of honey producers in the form of queen bee production for export. The domestic market is will serviced by existing suppliers. Diversification opportunities for honey producers is limited by the specialist knowledge and gearing up that is required to successfully produce commercial quantities, and distances of operations from international airports.

4.0 The Domestic Market, and its relevance for current and future prospects (Term of Reference 1.)

- 4.1 During the first half of the 1990 decade, Australian honey, behind Germany, enjoyed the second highest rate of per capita consumption in the world at .97kg. Australia wide, general promotion of honey by producers was facilitated by Federal Statutory arrangements vested with the Horticultural Corporation of Australia (HCA). Promotion was funded by a levy on production, collected by the then Department of Primary Industry, dispersed by the HCA on collaboratively developed programs authorized by the industry peak body at the time. In an average production year, promotional levy income yielded about \$450,000 (\$447,000 in 1995).
- 4.2 In 1995 – 96 the industry peak body at the time (FCAAA) decided to withdraw from the Federal statutory authority, terminating producer funded promotional arrangements which had been in place since 1962.

Leading honey packing houses then increased or instituted honey promotional budgets, targeting in house brands to benefit respective producer suppliers through expected improved company performance.

The VAA understands that on termination of statutory arrangements with the AHC, the enabling levy collection statutes remained in place, with the levy collection rate reduced to zero.

- 4.3 Farm gate prices remained around or below the long term trend line (TABLE 2) until the impact of the 2002 – 03 drought began to limit supply. From 1996 – 97 per capita consumption began to decline. The VAA submits that data to show the movement of per capita consumption across all forms of sales though 1997 to 2007 is not readily available to the Association, representing an information gap of some importance to honey production sector participants. Serious erosion of domestic consumer confidence occurred following the importation in 2003 of large volumes of poor quality produce and its disposable through the retail market. While hard data is not available to the Association, informed industry sources indicated at the time that supermarket offtake plummeted to as low as 50% of the 1996 – 97 rate of consumption. As the Committee of Inquiry will appreciate, Victorian and Australian honey production sector participants were appalled by these circumstances. The image of honey as one of the cleanest, greenest, and most nutritional food commodities produced in Australia, a record in which historically the sector had taken great pride, had been significantly damaged in the retail market place, along with damage to at least medium term prospects for the sector.
- 4.4 Concerned about the absence of an established Australia wide promotional fund to assist the mounting of a meaningful public relations exercises to counter the widespread and adverse publicity, the VAA resolved to seek through the industry peak body (AHBIC) the reestablishment of a formal industry wide honey promotional entity.

- 4.5 The AHBIC recognized the most effective avenue for the honey industry to compete with other spreads is by promoting the natural nutritional, and healthy aspect of honey marketed in Australia. Accordingly, the AHBIC have invested in a marketing plan that includes a public relations campaign to focus on consumer education. Apart from an online tool kit which can be downloaded by interested third parties the VAA is unaware what progress has been made towards the establishment of a broad consumer education program, and if any, its scope and proposed ongoing funding arrangements.
- 4.6 The VAA submits it is attracted to the re establishment of a Federal statutory levy on production, collected by the relevant departmental authority specifically for the purposes of honey consumption promotion, to be then dispersed less cost of collection to an approved industry entity authorized to develop an administer industry wide honey promotional programs. On past experience, the VAA is confident that Australia wide generic promotion of honey would produce outcomes of product quality assurance that would translate to the strengthening of consumer demand, and overall, help create a retail market environmental more conducive to improving industry future prospects. The issue of whether these outcomes would exert upward pressure on honey producers' farm gate prices having regard to the competitive dynamics that exist between market place stakeholders as previously discussed, remains a vexing issue, and needs to be addressed.
- 4.7 For an industry that may contemplate putting in place a statutory funded honey promotion entity, given feasibility and producers approval there are some important factors that would need to be addressed. For example:
- Given the greater market share now being occupied by direct sellers, the issue of across the board levy compliance becomes an important equity issue particularly for established packing houses, concern which is understood by the VAA. The issue would need to be satisfactorily addressed.
 - The industry relies substantially on the good will of packers to collect both voluntary and statutory levies from producers on delivery of honey to the factory, and remit the proceeds respectively to the AHBIC and the Government collection agency. In any future statutory promotional arrangement, it would become very important for packers' good will to be extended for the extra levy collection purposes.
- 5.0 Industry bodies Executive function, and relevance for current and future prospects (Terms of Reference 1.
- 5.1 TABLE 1. sets out the Australian honey bee industry organizational structure. The honey production sector forms the core of the structure, comprising the membership of each principal state beekeeping association, represented in the structure of the peak industry body (AHBIC) as the Federal Council of Australian Apiarists' Associations (FCAAA).

- 5.2 Funding for the peak industry body is derived from a voluntary levy subscribed by participants of all AHBIC sector member bodies including the packing sector. The VAA estimates in the absence of more precise data that more than 90% of the voluntary levies subscribed by the three producing sectors derives from honey production. Funding for peak body projects is significantly augmented from time to time through Federal Government assisted programs.
- 5.3 There are weaknesses in the peak body voluntary levy funding arrangements that have implications for the future development of the Australian honey bee industry and future prospects. The disappointing voluntary levy compliance rate across all industry sectors participants obviously affects the scope and function of the AHBIC on behalf of the industry. Reasons for levy payer abstentions need to be examined and corrected as far as it may be possible to do so. Clearly, there is an important role for the AHBIC sector member body associations and affiliates to do more in this regard. TABLE 6. is an excerpt from the AHBIC records, setting out voluntary levy rates applicable to eligible participants of each AHBIC sector member body.

TABLE 6.

The initial contribution shall be:

On sales of honey	2 cents per kg
On sale of queen bees	.75% of total sales
On sales of queen bee cells	.75% of total sales
On pollination services	20 cents per hive per pollination service

The voluntary levy on sales of honey is segmented to provide that 1.5 cents per kg is levied on production, and .5 of a cent is contributed by participating packers. As previously mentioned, the industry relies heavily on the good will of participating packers to collect the voluntary levy from participating producers, and remit the proceeds to the AHBIC.

- 5.4 TABLE 7. is an extract from the AHBIC draft 2007 Annual Report. Which lists the voluntary levy payers for industry sectors of honey production, honey packing, crop pollination and queen bees. The 21 entities listed by category are defined as follows.

- Mainstream honey packers and respective suppliers 5.
- Honey producer packers 7.
- Crop pollinators (including two state bodies) 7.
- Queen bee producers 2.

TABLE 7. demonstrates the limitations of voluntary levy compliance respective to eligible participants.

VOLUNTARY CONTRIBUTORS TO AHBIC

AB's Honey	Niklaus, A and G
Beechworth Honey	Papworth, F and E
Bees Neez Apiaries	Saxonbee Enterprises
Bourke, Lindsay	Spring Gully Foods Pty Ltd
Blue Hills Honey	Stephens, R
Capilano Honey Limited	Tasmanian Crop Pollination
Chiltern Honey Farm	Tasmanian Honey Company
Crop Pollination Assoc WA	Weerona Apiaries
Dewar Apiaries	Wescobee Limited
Gells Honey	Wilson, Colin
Honey DownUnder	

- 5.5 There are inherent weaknesses in any voluntary levy funding arrangement. Any industry participant large or small can choose to cooperate or not. Any participant can choose at any time to withdraw from an arrangement for any reason that might be any of a plethora of circumstances. The overriding strength of the AHBIC voluntary levy arrangement is that five of the country's mainstream packers listed in table 7, led by Capilano Honey Ltd (more than 60% of market share), are cooperating by collecting voluntary levy at 1.5 cents per kg. of honey from respective suppliers, as well as contributing themselves to the extent of .5 of a cent per kg.

Conversely, an inherent weakness in the arrangement is that should for any reason the already cooperating mainstream packers, but particularly Capilano Honey Ltd, withdraw their support, then the AHBIC capacity to function would be seriously undermined.

The VAA submits it is well aware that the issue of equity in terms of packer and producer packer participation in the voluntary levy funding arrangement is a source of concern for most voluntary levy contributors. Support by the largest volume packers for the voluntary levy funding system, so critically important to the financial viability of the Australian honey bee peak industry body, unfortunately brings with it its own encumbrances of perception by some industry participants that the decision making impartiality of the AHBIC could be compromised on some issues.

- 5.6 TABLE 8. is the draft statement of AHBIC financial performance for the year ended April 30, 2007. Analysis of the statement show that while combined industry levy income in 2007 covered operating and fixed costs including remunerations and on costs of \$161,000, the amount available for industry projects at \$131,000 (\$70,000 offset by Federal Government Industry Partnership Program Funding), is an indicator of the vulnerability of the peak body's financial circumstances dependant as it is on the good will of voluntary funding contributors.

**STATEMENT OF AHBIC FINANCIAL PERFORMANCE
FOR THE YEAR ENDED APRIL 30, 2007**

TABLE 8.

Income		
Combined industry	\$364,050.01	
Industry Partnerships Program	70,000.00	
Interest	10,209.67	
AMP distribution	10,357.45	
Miscellaneous income	12,954.57	
Membership dues	318.18	
Video and honey book income	<u>10,557.00</u>	
		<u>\$478,446.88</u>
Total Income		
 expenses		
Annual leave expense	-4,099.00	
Annual meeting	17,539.48	
Apimondia 2007	6,369.80	
AQBBG	24,545.45	
Audit fees	2,033.70	
Bank charges	336.80	
Consultancy fees	38,950.00	
Couriers	306.65	
Depreciation expense	1,894.06	
Directors' sitting fees	2,454.54	
Electricity	518.99	
Honey book reprint	13,534.62	
Insurance	4,004.71	
Legal fees	471.91	
Long service leave expense	1,844.00	
Loss on sale of fixed assets	509.13	
Office supplies and email	821.22	
Postage	3,616.28	
Printing and stationery	2,824.26	
Promotion	5,454.54	
Remuneration expenses	121,611.05	
Rent	27,063.62	
Repairs	1,134.68	
Special projects	86,303.83	
Staff amenities	104.23	
Subscriptions	3,661.05	
Superannuation	37,500.00	
Telephone	12,401.89	
Travel	<u>53,735.87</u>	
Total Expenses		<u>\$467,447.36</u>
		<u>\$ 10,999.52</u>
Operating Profit		

- 5.7 Previous commentary at section 4 of this submission discusses redundant statutory promotional arrangements which Australian honey producers funded through the Horticultural Corporation of Australia SMA during the first half of the 1990 decade. During this period, the HBA board administered a number of horticultural based industries, some of them in the emerging industry category. The Federal Government of the day recognized that many small primary industries engaged or soon to be engaged with an SMA were mostly poorly financed by their respective constituents at the peak industry body level, limiting executive function, and in most cases, in the absence of structured respective and representative policy advisory councils attached to the peak bodies, limiting to the soundness of industry advices to the Government.
- 5.8 Accordingly, the Federal DPI Minister of the day, the Honorable Simon Crean issued a ministerial determination which authorized that 10% of the revenue collected by his department by levy from producers for the purposes of product promotion, would be directed to the industry peak bodies specifically for the purpose of assisting executive function. For the honey bee industry peak body of the time, (FCAAA) it was a breath of fresh air for the two final years of its SMA arrangement with the HCA.
- 5.9 Many years have now passed. The VAA is unaware of how existing Federal Government statutes and policy would reconcile with the intervening arrangements described in 5.8, in the event an attempt by honey producers through the AHBIC to introduce statutory arrangements to fund the promotion of honey becomes successful. The VAA submits, in the context of ascertaining what more could be done to improve certainty for the funding of the peak industry body, the foregoing intervening arrangement should be assessed for its legal feasibility.
- 5.10 The Honey Bee Linkages workshop recently conducted by RIRDC in Canberra, following on from the DAFF Rural Skills, Training and Research Inquiry, produced outcomes of strategic direction supported by the VAA Executive Council. Workshop participants also resolved to form a National Alliance of rural industry stakeholders that included the Australian honey bee industry, a consequence which reflects a greater understanding of the key role which honeybees play in the productivity of 60% of Australia's food and pasture crop enterprises. The VAA submits that now may be an opportune time for the AHBIC to explore what prospects may exist for the establishment of formal linkages with the National Farmers' Federation possibly in Canberra. What form this should take has not been considered by the VAA. What is certain, however, now the potentially imminent threat of a Varroa mite incursion has sharply brought into national focus the dependency to varying extent of 60% of Australia's human and animal food and pasture crops on honeybees to pollinate and effect fertilization, is that from this point on, cooperation between the honeybee industry and other farmers will be fundamental to the enhancement of future prospects for stakeholders.
- 6.0 The honey production sector, and its future prospects (Term of Reference 1.)
- 6.1 As discussed under 5.1, the principal stake beekeeping associations, member bodies of the FCAAA, form the core of the Australian honey bee peak body structure. It is the key sector of the honey bee industry, producing the primary resource of Australian produced bulk honey for refining by the packing sector, creates the domestic queen market for queen bees, and it builds and maintains the prosperous honeybee populations which are also utilized to provide managed crop pollination services to farmers.

- 6.2 The engine oil which enables the state associations to function as well as they do comes from the voluntary commitment of beekeepers in every state to support their respective state and regional representative associations. While men and woman are elected by members to state association executive councils, committees, branch and affiliate committees and so on, almost without exception, they serve without financial reward for their services.
- 6.3 In most cases, part time secretariats are employed to service respective memberships. In Western Australia, the principal beekeeping entity is a member of the WA Farmers' Federation which provides professional secretariat support. In Victoria, all deputations, submissions preparations, promotions such as the Royal Melbourne Show exhibit, set up and manned by up to 140 members over 10 days each year, are examples of the enormous voluntary contribution that is sustained, year after year, decade after decade, in all states. The forerunner organization to the VAA, the Victorian Beekeepers Club, was established in 1884. The VAA has now continuously served its members for 107 years. Such longevity is as much a tribute to the nature of the occupation as it is to the resilience of the men and woman who through thick and thin, have put in so much effort over the years.
- 6.4 In relation to the foregoing commentary about industry personnel, and in the context of the future development of the Australian honey bee industry and its medium and long term prospects, the following circumstances warrant consideration:
- Rural Australia has not been immune from the rapid Australian culture shifts and generally better socio economic conditions that have been accelerating over the last decade or so. However, little if any improvement in the historical low disposable income threshold has been the lot of most mainstream honey production participants, unless engaged in some form of direct marketing or other diversification.
 - While the independent lifestyle of working with honeybees, success irrevocably geared to a lifetime working in and understanding the natural environment is a powerful incentive, the long hours of hard work often away from home and family, and the financial reward achievable for effort and return on assets, have now become disincentives to the recruitment of new participants in the numbers that are and will be needed to replace an aging workforce.
- 6.5 The VAA submits it does not have hard data to submit to the Committee of Inquiry demonstrating the extent of structural change that appears to be occurring in the sector's human resource environment. This represents an information gap that needs to be rectified by peak body supported research. In Victoria, for example, while departmental beekeeping registrations numerically have remained reasonably stable, most observers expect hard data to show decreasing main stream producer numbers. A positive the industry can draw from this crude analysis is that, should profitability from honey production improve, then incentives would be created for some smaller part time producers to move into mainstream production. Obviously, the same incentive would drive increased investment by mainstream producers in honey production including infrastructure, upgrades, and if sustained, would lead to a very considerable strengthening of the sector and in doing so increase its capacity to deliver its enormous socio economic benefit to the wielder community and the nation through managed honey bee crop pollination.

6.6 Another issue which has implications for the future development of the Australian honey bee industry and its future prospects is the progressive recruitment of state and national beekeeping industry executive committee personnel and leaders. For more than 100 years, men and woman have been elected from respective memberships who have served and continue to serve virtually as volunteers, driven by their commitment and the nature of their profession to advance the interests of the honey bee industry. As mainstream honey production became more difficult to sustain without diversification, as costs particularly fuel (transport) and labor increases, if average disposable incomes do not improve, members of necessity will be even less inclined to donate their time and effort to run industry organizations. These circumstances can only lead to further downward pressure on the available pool of potential quality leadership aspirants.

7.0 SUMMARY TERM OF REFERENCE 1.

7.1 Through the earlier Federal Government Rural Skills Training and Research Inquiry, Australian honey bee industry participants have been very encouraged by that Inquiry's recognition of the value of honey bees to the productivity of at least 60% of Australia's human and animal food crops, and to the national interest. The role of RIRDC managing the Honey Linkages workshop which followed the Skills Inquiry is also acknowledged.

7.2 There is deep concern about the adverse impact a successful incursion of the exotic honey bee parasite Varroa destructor, would have on Australian honey bee populations, wild and managed, and what would be the effect on future prospects for the Australian honey bee industry per se.

7.3 The honey production sector is the key economic driver of the Australian honey bee industry, it's activities giving rise to the establishment of all other industry sectors that form, as member bodies, the structure of the industry peak body, AHBIC the section through voluntary levies, provides most of the peak body funding. The sector also provides all managed honey bee crop pollination services that are delivered to horticulture and agriculture, and will continue to do so.

7.4 Low, endemic average disposable income is limiting to future sector growth and prospects deriving from honey production. Diversification into managed honey bee crop pollination, complementing honey production, has good future perspectives, whether having to contend with Varroa mite or not.

7.5 The long term widening gap between farm gate and retail prices for honey needs investigation and reporting, in the interest of transparency. The issue of declining farm gate prices as a proportion of average retail prices is unacceptable, and needs to be addressed.

7.6 The number of honey producers engaged in packing and direct marketing has increased, delivering better financial outcomes. The extent of this market segment needs to be quantified.

7.7 Data is required to determine actual Australia wide per capita consumption of honey, and to trace the trend line over the past decade.

- 7.8 The VAA is attracted to the AHBIC proposal that the most effective avenue for the honey industry to compete with other spreads is by promoting the natural, nutritional and healthy aspects of honey marketed in Australia. The VAA is attracted to the re-establishment of a statutory levy on production for the purposes of generic promotion.
- 7.9 The AHBIC voluntary funding levy compliance rate is disappointing. Strategic planning designed to improve compliance needs to involve state association member bodies and other sectors' organizations.
- 7.10 Given the funding difficulties of the Australian honey bee peak industry body, and the precedent established by the Federal Government about 1994 – 95, the VAA raises for consideration whether existing Federal Government statutes and policy regarding statutory levy collection for promotional purposes can legally provide for Ministerial intervention to divert a percentage of levy income for a purpose other than for which it was collected.
- 7.11 Following on from the Rural Skills, Training and Research Inquiry, RIRDC recently conducted a Honey Bee Linkages workshop in Canberra attended by primary industries dependant to varying extent on honey bee crop pollination to maximize respective yields. Support was expressed for the formation of a National Alliance of stakeholders including the Australian honey bee industry. The VAA submits that now may be an opportune time to explore what prospects may exist to establish formal linkages with the National Farmers Federation.
- 7.12 The VAA does not possess hard data to demonstrate if change is occurring, and if so, at what rate, to the numbers of beekeepers engaged in mainstream honey production. This represents an information gap that needs to be rectified by peak body supported research. The recruitment of unpaid state executive committee personnel and future leadership aspirants is likely to become more difficult.

RECOMMENDATION 1.

The Committee of Inquiry recognize the honey production sector of the Australian honey bee industry to represent the key economic and structural foundation of the industry, and:

- The Committee of Inquiry recognize there are good prospects for honey producers to deliver and expand future honey bee crop pollination services, but which will always be geared to migratory honey production practices in order to build and maintain the required high level, prosperous honey bee populations, whether having to contend with endemic Varroa or not.

RECOMMENDATION 2.

The Committee of Inquiry recognize the long term, widening gap between farm gate and retail prices for honey, to the long term economic disadvantage of producers. The Committee of Inquiry consider recommending that an investigation be undertaken by an appropriate independent authority, tracing the movement of honey and pricing from the farm gate to the consumer.

RECOMMENDATION 3.

Given the precedent established c. 1994 – 95, the Committee of Inquiry investigate and report on whether existing Federal Government statutes and policy regarding levy collection for promotional purposes can legally provide for Ministerial intervention to divert a percentage of levy income for a purpose other for than which it was collected.

RECOMMENDATION 4.

The Committee of Inquiry note the contemporary data gaps that exist relating to honey production sector function such as:

- Costs of production
- Industry membership by category structural change
- Australia wide per capita consumption of honey, traced over the last decade
- Volume of honey now being packed and marketed by producers
- The proportion of mainstream honey producers delivering honey bee crop pollination services
- the proportion of mainstream honey producers delivering honey bees destined for overseas markets.
- The proportion on mainstream honey producers engaged in commercial queen bee production and recommends as a matter of priority, that research funding be made available to enable RIRDC, in collaboration with the Australian Honey Bee Industry Council, to undertake studies to generate reliable data pertaining to the above contingencies.

8.0 **TERM OF REFERENCE 2. THE INDUSTRY'S ROLE IN AGRICULTURE AND FORESTRY.**

8.1 The honeybee industry role in agriculture has been well articulated during both the recently concluded Rural Skills Training and Research Inquiry, and the following Honeybee Linkages Workshop conducted in Canberra by RIRDC. Most of the present Committee of Inquiry members would be familiar with the evidence submitted to the earlier Inquiry relating to the beekeeping industry's role in Australian agriculture. For this Inquiry record, the following particulars are provided.

8.2 Australian horticulture and agriculture depends substantially on exotic crops and pastures. Many of these crops require the European Honeybee, *Apis mellifera*, to pollinate crop flora and thus effect fertilization. Crop pollination by honeybees in Australia originates from three sources:

- Commercial services provided by the migratory honey production sector.
- Incidental services provided by the migratory honey production sector when working other flora adjacent to agricultural and horticultural crops.
- Wild populations of honeybees (*A. mellifera*).

60% of agricultural and horticultural crops in Australia are dependant to various extent on honeybee populations for fertilization to occur. Some, such as almonds, and the temperate climate pasture mainstay, white clover, for example are 100% dependant on insect pollination to set nuts and seed. Many of the crops evolve in the Old World in a bio dynamic relationship with honeybees, and that partnership continues today throughout the rest of the world wherever European man has settled.

- 8.3 A significant challenge for the future efficient production and productivity of 60% of Australia's human and animal food and seed crops, not well understood by the wider community, is whether the future honey production sector of the Australian beekeeping industry can remain viable enough to maintain adequate honeybee population levels and therefore to continue to deliver the specialist crop pollination (fertilization) services to those horticultural and agricultural crops that require insect pollination to maximize yields.
- 8.4 The annual value of honeybees to agriculture and horticulture production in this country, estimated by RIRDC through various studies and updates, is \$1.7b involving more than 9,000 jobs. RIRDC further estimate that in the extreme event a sudden collapse of honeybee populations in Australia occurred and immediate adjustments were not possible, there would also be a flow on economic loss of additional \$2b and 11,000 jobs sustained by the Goods and Services sector that provides agricultural inputs. This conclusion was reached in the Centre for International Economics Study: "Valuing honeybee pollination". A report for the Rural Industries Research and Development Corporation by Jenny Gordon and Lee Davis June 2003. RIRDC publication number 03/077 RIRDC Project number CIE-15A. Thus, it can be seen the real value of honeybees does not derive from the industry's modest farm gate value of about \$65m, but from the enormous external benefit that is enjoyed by the wider community.
- 8.5 The parlous state of beekeeping and crop pollination in the USA serves as a timely reminder of the serious threats facing Australian agriculture. As much as 1/3 of the American diet comes from fruit and vegetables that are pollinated by the honeybee. The entry of the Varroa mite, Varroa destructor, into the USA has caused the decimation of both feral colonies (near elimination in many states), while managed hives have suffered losses in excess of 70%. California producers 80% of the world's almonds and without the one million hives required annually to pollinate this crop, "California's US \$1billion/ year almond industry will die" (Bee World, Sept 2005). The expanding almond industry in Australia will suffer a similar fate if appropriate government intervention is not taken. The project requirements for the expanding almond crop alone is 150,000 hives by 2010. This target may not be met without appropriate government intervention. Further more, opportunities to enhance productivity of other crops such as cotton with improved honeybee pollination will go begging. For example, recent research in NSW show an increase in lint production of 16% in a cotton crop pollinated by honeybees. The increased production was valued at \$220/acre for the crop. It should also be understood that two other serious honeybee parasites are not far away from Australia's borders. These risks will be addressed under TOR 3.
- 8.6 Clearly, if Australian honeybee populations that are vested in the honey production sector, for whatever reason becomes seriously depleted, over the time it took for populations to diminish, the supply shock effect would have serious consequences for future human and animal food production in this country and the productivity of much of the farm sector, for national economic and social interests, and for Australian food consumers in terms of the quantity and quality of food available and at what price, not to mention the likely attendant political fall out.

Australian agriculture and food policy for the next generation such as addressed by the Agriculture and Food Policy Reference Group, needs to accommodate the pivotal policy issue of how best can the long term viability of the beekeeping industry's honey production sector be ensured, so that the sector can continue to maintain its high populations of honeybees that are necessary not only for honey production, but which are also managed to deliver essential contracted and incidental pollination services to the growers of Australia's human and animal food crops that require insect pollination to maximize yields.

8.7 Australia is the only continental inhabited land mass in the world to remain free of Varroa destructor. Drawing from the experience of overseas beekeeping and agricultural communities, of necessity trying to cope with the parasite's impacts, the challenge can be seen to be formidable. It would not only be sensible, but the VAA considers imperative that Australian stakeholders sooner rather than later should begin to prepare for the day when this country has to contend with endemic Varroa. The primary goal of such effort has to be the development and implementation of strategies that will maintain Australian managed honeybee populations, a key primary dynamic of much of the nation's future food production, till the end of time. Australia will not be alone in this endeavor. The world beekeeping and agricultural communities and governments, bound by common need, are already working hard though research, training and other means in this endeavor. It is a challenge that will be successful, for it must be successful.

8.8 The recent Honey Bee Linkages workshop managed by RIRDC, in Canberra, formulated a preliminary battle plan to meet the impending challenge by identifying 7 key strategies for further development and implementation. The strategies are:

- Establish an entity that has a research and development focus.
- Develop the business skills of the honeybee industry.
- Establish public and political support for the honeybee industry and pollination services.
- Determine research and development priorities.
- Increase communication and extension between pollination industries.
- Increase access to public land / floral resources and
- Increase the viability of the honeybee industry.

The VAA understand that RIRDC has applied for funding from DAFF's industry partnership program to enable the preparation of a detailed proposal for a national pollination network as proposed by the workshop.

8.9 An encouraging aspect of honeybee biology is that overseas research has shown that a percentage of honeybees world wide possess an inherent trait known as hygienic behavior. Although the behavior is controlled by recessive genes, research has shown that the behavior can be elevated within a population. The behavior enables honeybees to quickly detect and remove unhealthy larvae and pupae from hives. The behavior shows promise in helping to biologically (non chemical) control Varroa. Australia is already at the cutting edge of world research into the hygienic behavior of honeybees, through work by Dr Ben Oldroyd and his team at the School of Biological Sciences, University of Sydney.

8.10 Consistent with strategies defined by the Honey Bee Linkages workshop, collaborative investment by all stakeholders including the Federal Government is warranted for the purpose of genetically improving Australian honeybees, not only for better production, but also to improve their biological resistance to the impact of diseases and pests including the parasite Varroa destructor. The honeybee industry peak body has recently established an Australian honey bee breeding program, drawing its foundation stock from some of the best genetic material currently available in Australia. The work performed so far has been to establish the base population from which attempts will be made to systematically improve the stock. Dr Oldroyd is an advisor to the program. The AHBIC has provided establishment finance, but is limited to what it can provide in the future. The goal of the program is for it to become self funding, through the sale of breeding stock to Australian beekeeping industry participants, and even overseas at some point in the future. The VAA submits, the fledgling AHBIC national bee breeding program could form a solid basis of genetic material from which to build a world class honeybee improvement program, beneficial to all partnership stakeholders.

TERM OF REFERENCE 2. SUMMARY.

- Australian agriculture and horticulture substantially depend on exotic crops and pastures. Many of the crops require the European honeybee to pollinate them, effecting fertilization.
- Honeybees in Australia co-evolved in the Old World in a biodynamic relationship with many of the crops.
- The annual value of honeybees to crop pollination in Australia is up to \$1.7 billion, and 9,000 jobs. RIRDC further estimate that in the event of a sudden collapse of honeybee populations, a further economic loss of \$2 billion to the national economy and 11,000 jobs could occur.
- The honey production sector needs to remain viable to continue to provide managed crop pollination services.
- The USA serves as a timely reminder of the serious threats facing Australian agriculture through exotic pest incursions, including Varroa destructor. Managed honeybee losses exceeded 70%.
- Australia is the only inhabited continental land mass to remain free of Varroa destructor. Australia should begin to prepare for when endemic Varroa establishes. The Rural Skills Training and Research Federal Inquiry, the following Honey Bee Linkages Workshop, and the current Inquiry into the future development of the Australian Honey Bee Industry are a good start.
- Australia is not on its own. A lot of research is going on overseas to find solutions, including the breeding of honeybees genetically resistant to pests and diseases. The fledgling AHBIC national bee breeding program could form a solid foundation on which to build a world class breeding program.
- In Victoria, about 85% of honey production derives from eucalypt species growing on public and freehold land.
- The VAA supports the multiple use of forest resources including timber harvesting. Clear fall operations adversely impact on beekeeping prospects. Strategies have been agreed between the State Government and the industry to mitigate the impact of clear fall forestry operations.

- The VAA has a good working relationship with the public land managers through a recently established state wide forum known as the Apiculture on Public Land Liaison Group.
- DSE / Parks Victoria are developing an information manual to assist land managers and beekeepers discharge their respective obligations within public land.
- DSE is developing a frame work for sustainable land management practices to measure its own management performance against internationally agreed criteria, including the delivery of socio economic benefits to the wider community.

RECOMMENDATION 5.

The Committee of Inquiry recognize the value of honeybees to farm industries whose crops depend to varying extent on insect pollination to effect fertilization and maximize yields, based on the Centre for International Economics Study: “valuing honeybee population” (RIRDC, Gordon and Davis 2003). The Committee of Inquiry recognize that not all eligible crops were surveyed in the CIE study.

RECOMMENDATION 6.

The Committee of Inquiry recommend that research study be commissioned by RIRDC to quantify the value of increased soil fertility deriving from insect pollination, nitrogen fixing legumes pollinated by honeybees. Studies have been performed in New Zealand, and accounted for in the economic value of honeybees to agriculture. The Committee of Inquiry recommend the commissioning of a study to value all crop yield benefits occurring as a result of honeybee pollination.

RECOMMENDATION 7.

The Committee of Inquiry support by recommendation the establishment of a national pollination network entity for research, training and education as proposed by the Honey Bee Linkages Workshop, the Commonwealth as a collaborative partner and in the national interest meeting development costs. The Committee recognize, effective collaboration between stakeholders will be necessary to fund programs conducted by the network, taking into account the obvious limitations to the extent of funding which can be reasonably raised by the statutory research levy on honey.

8.11 The honey industry role in forestry.

Apiculture is regulated throughout Victoria’s public lands under the provisions of the following statutes:

- Forests Act 1958
- Land Act 1958
- Crown Lands (Reserves Act) 1978
- National Parks Act 1975

In addition day to day management is regulated through the provisions of DSE policy, Beekeeping on Public Land 21.5PL.

8.12 Eucalypt forest and woodland systems represent the most important melliferous (nectar and pollen producing) resource for beekeeping in Australia. In Victoria about 85% of honey production derives from species of eucalypts.

Native forests and woodlands on public and freehold land therefore play a critical role in maintaining prosperous commercial honeybee populations essential not only for efficient apiary production, but for the maintenance of managed honeybee populations that are deployed to assist production of much of the human and animal foods that are successfully grown, harvested, sold and consumed by Australian and overseas customers. The men and woman of the Victorian beekeeping industry are a resourceful and resilient group of people vested with a considerable body of practical knowledge of the bush. They are driven by a deeply ingrained philosophical ethic to conserve the bush. They spend a good part of their livelihood and working lives in the bush.

8.13 In Victoria, the VAA supports the multiple use of forests resources, a policy that has well served the beekeeping industry. For example, timber harvesting has provided forest access tracks and roads into some forested country that would have remained inaccessible to apiarists. However, clear felling operations for chip wood production adversely and seriously impacts on native plant floral resources, and it is appropriate to express concern. In Victoria, strategies have been agreed between the State Government and the industry through the Gippsland Forest Apiary Plan to mitigate the impact of clear fell forestry operations that were a product of the Gippsland Regional Forest Agreement.

8.14 The VAA enjoys a good relationship with its public land managers. The association represents the industry in a statewide forum known as the Apiculture on Public Land Liaison Group, currently working through a range of issues such as bushfire impact on bee sites, attrition of the number of bee sites in conserved forests (national parks), development of an information manual addressing apiculture in public land for distribution to regional land managers and so on. The issue of access to conserved forests in Victoria will be further discussed under TOR 5.

8.15 Of interest to this Inquiry is that Victoria's public land managers, the Department of Sustainability and Environment (DSE) is developing a frame work for sustainable land management practices measuring its performance against Montréal criteria, which includes the maintenance and enhancement of long term socio economic benefits.

8.16 The VAA has contributed to the development of the frame work, observing the dynamic synergy between healthy, sustainable forest systems, a viable commercial beekeeping sector, and the delivery in state and national terms of enormous socio economic benefits to the wider community through honeybee induced human and animal food production.

9.0 **TERM OF REFERENCE 3. BIO-SECURITY ISSUES.**

9.1 Threats to beekeeping industry viability and to the migratory honey production sector in particular include the possibility, at some time in the future, of incursions occurring of at least 3 serious exotic honey bee pests. They are:

- The Varroa mite, a native of South Eastern Asia including Indonesia. There are several closely related species of this mite and one of them, *V. destructor* in relatively recent times has become endemic to all beekeeping nations of the world, except Australia, with disastrous consequences for the European honeybee *A. mellifera*, now farmed world wide, in terms of limiting honeybee populations, consequent loss if industry viability, and because of control regimes involving various chemicals, problems with apiary products quality.

V. destructor entered New Zealand's north island in the year 2000. *V. jacobsonii*, benign so far to *A. mellifera* is now endemic to Papua New Guinea and some Torres Straight Islands.

- The Asian mite, *Tropilaelaps clareae*, another native to Eastern Asia, which according to CSIRO (Anderson), if it became established in Australia, could have at least as devastating effect on the Australian honey production sector through significant managed honey bee populations reduction and management difficulties. As with *Varroa*, wild populations would also diminish.
- The tracheal mite, *Locustacurus trachealis*, an internal parasite of honeybees. Native to Europe, its effect is particularly devastating on honey bee populations that are susceptible because of for example, their long term geographic isolation from Europe as is the case with Australian honeybees. Following an incursion, genetic resistance to the effects of this mite would build within honeybee populations, but this would take some time.

9.2 Other important issues of quarantine significance for Australia are:

- The recent discovery at Cairns, Queensland, of an incursion of the exotic honeybee, *Apis cerana*, a native of South East Asia and the natural host of *Varroa jacobsonii*. While investigative and response actions are still on going, it is clear that the primary incursion could have occurred two years or more ago.
- *Apis mellifera* (the European honeybee), is also farmed by beekeepers in South East Asia, a circumstance which has serious quarantine implications for Australian primary producers. The most likely conduit for incursions of *Varroa destructor* and *tropilaelaps clareae* to occur in Australia are through *Apis mellifera* arriving at Australian ports from South East Asia and pathogens remaining undetected, or through illegal smuggling of *Apis mellifera*. For example, had the Cairns incident involved *Apis mellifera* instead of *Apis cerana* the primary discovery of honeybees in the mast of a vessel in dry dock for two years, may not have attracted much attention.
- *Apis mellifera scutellata*, the African honey bee, notorious for its aggressive, stinging behavior some years ago arrived in Fremantle WA by ship from Durban South Africa. In this case, prompt detection by ports personnel alerted AQIS, and a potential incursion was averted. African honeybees readily cross breed with European honeybees, producing hybrids commonly referred to in North and South America as "killer bees".
- South Africa is the natural range for another honeybee, *Apis capensis*, commonly known as the Cape honeybee. While not as aggressive as the African honeybee its reproductive systems are unusually adaptive. It has the capacity to infiltrate *Apis mellifera* colonies, eventually replacing these populations with its own species. The Cape honeybee presents significant problems for managers of *Apis mellifera* in southern Africa.
- *Nosema Apis* is a protozoan which inhabits the gut of honeybees, ubiquitous to populations throughout the world. Not ubiquitous, in the light of present knowledge, is *nosema ceranae*, which is widespread in the USA, and which has been implicated in the disastrous, recent syndrome in that country known as Colony Collapse Disorder (CCD).

- 9.3 The 'VAA submits that the long delay in detecting that an incursion of Apis cerana had occurred at an Australian port (Cairns) possibly more than two years ago, that five colonies of Apis cerana so far have been found in the Cairns environment, is a wake up call for everybody that Australia's preparedness and response systems for such incidents need to be subjected to a thorough, all encompassing investigation, taking into account the outcome of the 2005 review by Bio Security Australia into the National Sentinel Hive Program.

Among this review's recommendations was that an analysis of the cost and benefits of the program be conducted, and who should pay for the cost of the program, including the operation over the long term. In 2006, responsibility for the program was transferred to the CVO, DAFF. The VAA understands that the Primary Industries Standing Committee in February 2007 agreed that DAFF should develop a business plan to map the future of the Sentinel Hive Program, and it should also conduct a review of the long term funding and the co-ordination of the program. The VAA submits while the bureaucracy grinds on, the urgency, the imminent risk factor has all but overtaken us, and concerted action is needed to strengthen quarantine and surveillance systems. The VAA submits, although the Australian honeybee industry is a key stakeholder, it has limited financial resources to contribute. The VAA submits, however, it has beekeeping industry participants living in all main coastal populations centers, some of whose expertise and honey bee colonies could easily be co-opted into an expanded sentinel hive program. As an adjunct to the sentinel hive program, the strategic deployment of pheromone equipped bait hives within or near port precincts would significantly strengthen surveillance procedures.

- 9.4 Terms of Reference for a wide ranging investigation would need to be expeditiously assembled, and would need to include such elements as follows:
- Use the Cairns incident as a case study – identify weaknesses of surveillance and responses. All vessels be required to report freedom of bees before docking.
 - Bait boxes, sentinel hives at port locations, numbers.
 - Sentinel hives elsewhere e.g. Cape York?
 - Efficiency of bait box pheromones for *A cerana* and *A mellifera*
 - Other detection infrastructure needed?
 - Frequency of cyclical surveillance and operating procedures
 - All procedures regarding the importation of all apiary products.
 - Inspection staff, numbers, funding, Commonwealth, States other?
 - Procedures following detection
 - Education and training, port authorities, and staff, incentives for staff co-operation
 - Education and training, Commonwealth States departmental staff
 - Education and training, coastal metropolitan beekeeping communities
 - Education and training, road transport operators (shipping containers)
 - Education, schools, universities,
 - Education and training airport authorities and staff
 - Increased surveillance at airports pre major events attracting high overseas visitor numbers (e.g. Melbourne, Apimondia, Sept 2007)
 - The New Zealand Varroa incursion, take home messages
 - Overall funding review Commonwealth?
 - Long term funding – national interest issue

- 9.5 The VAA places on record that industry co-operation with the Commonwealth, the states, CSIRO and the universities over more than 30 years in the writer's experience has delivered outcomes that has seen the successful interception of exotic honeybees and pests including Varroa at various locations around coastal Australia, at airports intercepting smuggled honeybees and through the overseas postal service. Breaches of quarantine arrangements did occur in 1992 with the successful incursion of chalkbrood, (*Ascosphaera apis*) most likely through faulty overseas inspection and certification assurances relating to honeybee collected pollen imports, and the 2004 incursion of small hive beetle (*aethina tumida*) on the east coast of Australia, probably over the period of the Sydney Olympics. The VAA also places on this Inquiry's record that consultation with the Commonwealth during the late 1970's led to the design and construction of world class quarantine facilities for honeybee imports, at Commonwealth expense, located at Eastern Creek, Sydney. Operating since 1983, the new facility greatly strengthened Australia's ability to safely access overseas honeybee blood lines through stringent protocols and the establishment of one national entry point. Both Varroa and tracheal mite have been successfully intercepted at the facility.
- 9.6 Reports that the Commonwealth intends to dispose of the Eastern Creek honeybee quarantine facility has concerned beekeeping industry participants. The VAA submits it is not fully abreast of the Commonwealth decision, but understands that timelines of 2010 and 2015 feature in redundancy planning. Clearly, any diminution of importation arrangements, inhabiting safe access to overseas blood lines and increasing incentives to smuggle honeybees into the country would be a very poor outcome not only for the beekeeping industry, but more importantly in economic terms, the national interest. In what form, and the location of replacement facilities are issues central to industry concern needing satisfactory resolution sooner rather than later.
- 9.7 American Foul Brood (AFB) is an ailment of honeybees world wide which is caused by a bacterium, *paenibacillus* larvae. It infects and kills honeybee larvae, eventually causing the death of colonies. Up to 1977 Australia's incidence of AFB was the lowest recorded anywhere in the world, at .05 percent of registered honeybee colonies, due to diligence by beekeepers and respective states' departmental surveillance.
- 9.8 At that time, means of eradicating the ailment from apiaries, when detected, was by burning the infected materials and bees, because AFB spores remain viable indefinitely, and a future source of re-infection.
- 9.9 In 1977, another brood ailment, European Foul Brood (EFB) was diagnosed for the first time in the Australian honeybee population. Overseas research had shown that, along with many other disorders affecting animal health and food production across the spectrum of primary industry, that European Foul Brood could be successfully treated with oxytetracyclinehydrochloride (OTC). Unfortunately OTC has the capacity to mask the presence of AFB by suppressing clinical symptoms without eradicating the ailment. The result has seen an insidious and significant increase in the incidence of AFB in all states, exacerbated by modern commercial management practices, the large proportion of small part time and hobbyist beekeepers, and importantly, the scaling back of departmental apiary staff in all states.

9.10 Australian funded and managed honeybee research, in world first circumstances, has developed two very important detection and proven methodologies that have great potential to reduce the incidence of AFB in Australia if nationally implemented.

They are:

- The use of cobalt 60 irradiation to sterilize all hive materials suspected of being contaminated with AFB spores.
- The development of laboratory culture tests of honey produced by apiarists across all categories of hive owner ship.

9.11 Victorian beekeepers subscribe hive registration fees to D.P.I. Victoria. Part of the accruals are used to support an AFB compensation fund to help cover the costs of dealing with respective AFB outbreaks that involve the loss of materials and queen bees through supervised incineration, or through the use of cobolt 60 to sterilize materials. The capped compensation fund, limiting maximum payouts for each circumstance, strongly supported by the Victorian honeybee industry, is currently running a surplus approaching \$300,000

9.12 In 2001-02, DPI Victoria introduced the AFB smart honey testing program, a cooperative initiative of the apiary industry and DPI Victoria, based on laboratory culture tests of honey. Participating apiarists submit, on an annual basis, one sample of bulk extracted honey for each apiary or load of bees kept. AFB smart is a voluntary program, but with an incentive created for apiarists participation thorough the application of a lower DPI hive registration fee as a reward for participation. Results of AFB smart have been encouraging, achieving a participation rate of 55% across the full range of registered beekeepers. There has been a significant reduction in the incidence of AFB through a reduction in the number of large outbreaks of AFB.

TABLE 9.

Results for period 2001-06

Table 1 results of AFB Smart program for period 2001-2006

Year	No. of Apiarists submitting samples	Total No. of samples received	No. of samples with CFU's	No. of samples CFU score		
				1 – 20	21 – 50	51+
2001-02 [^]		490	128	93	15	20
2002-03*	549	954	216	166	22	15
2003-04*	725	1155	136	99	14	19
2004-05*	1035	1872	297	230	31	36
2005-06*	1048	1552	177	145	16	16

[^]. Beekeepers with 51+ hives only.

*. All beekeepers registered at time of mail out of sample kits.

Program outcomes to date.

(a) Achieved a 55% participation rate of all registered beekeepers in Victoria.

(b) Reduced the incidence and number of large outbreaks of AFB.

(c) Reduced the degree of day to day supervision of AFB outbreaks through training and self regulation measures enabling apiary inspectors to serve more clients and those that are considered incapable of effective disease management.

(d) Facilitated DPI contact with many small beekeepers who previously have no contact with an apiary inspector/advisor.

(e) Facilitated certification of honey for interstate and export markets on a per apiary basis rather than an enterprise basis, thereby freeing up more product for those markets.

(f) Enabled industry to meet interstate movement requirements for honeybee colonies and hives thereby ensuring continued access to nectar and pollen resources and pollination service opportunities across State borders.

(g) Assisted availability of healthy honeybee colonies for sustainable growth of the honeybee crop pollination service industry.

(h) Meet the Australian Honey Bee Industry Council goal of having the majority of apiarists subject to regular testing of honey for AFB.

9.13 The Australian Honeybee Industry Council supports the establishment of a national AFB control program under the auspice of Animal Health Australia (AHA). The VAA understands that a proposal was prepared for a nationally coordinated program for the improved management and control of AFB in 2003-04, incorporating among other elements the guiding principle of the Victorian AFB Smart program in a review of all states' legislation, control strategies and management techniques, and importantly with a national monitoring surveillance and reporting capability.

9.14 It was proposed, that the national AFB control program be funded through agreement between industry, state and territory governments and the Commonwealth. Given the potential to at last do something meaningful about reducing significantly over time the incidence of AFB in Australia, in doing so contributing positively to the industry's future prospects and development, the VAA was dismayed when the proposal was shelved, the VAA is advised, by an unwillingness or inability by governments' stakeholders to commit resources to the plan.

9.15 The VAA also places on this Inquiry's record it has noted the decision by Australia to allow the importation of apples from New Zealand on the basis that there is minimal risk for an incursion of fireblight to occur. The VAA informs the Committee of Inquiry it placed substantial information before Bio-Security Australia during the risk analysis period about adverse impacts that would be sustained by honeybee industry participants in the event an incursion of fireblight should occur. As pollinators of fruit crops including apples, honeybees become vectors of fireblight. Beekeepers operating within eradication control areas would be severely impacted, including to the extent of colony destruction. The VAA submission to biosecurity Australia will be tabled at a future hearing for consideration by the Committee of Inquiry.

9.16 Summary.

- Threat to the viability of the Australian Honey bee industry, to the honeybees farmed by the industry, and to the wild populations which exist throughout Australia, include the possibility of incursions occurring in the future of an array of serious exotic honeybee pests and pathogens, described in the text of the submission.
- An incursion of *Apis cerana*, a native honeybee of South East Asia, has recently been discovered in Cairns, Queensland. Evidence is emerging that indicates the incursion may have originated two years or more ago. Investigation is proceeding.
- The Cairns incident is a wake up call, that Australia's preparedness and response systems or such incidents may not have functioned well. Australia's preparedness and response systems need wide ranging investigation and action to upgrade systems where necessary.
- There is a long history of productive cooperation with the Commonwealth on quarantine and surveillance issues. The industry is concerned about the Commonwealth's decision to close down the Eastern Creek (Sydney) national honeybee quarantine facility which manages honeybee imports to Australia. The location and the form of replacement facilities are issues central to industry concern.
- American Foul Brood (AFB) is a serious ailment of honeybees, endemic to Australia. New methods of detection and sterilization now make it possible to significantly reduce the incidence of AFB through a nationally co-coordinated control program based on the Victorian AFB Smart program.

RECOMMENDATION 7.

The Committee of Inquiry recognize that the vulnerability of Australia's honeybee populations, the future viability of the Australian honey bee industry and the productivity of many of Australia's human and animal food crop industries dependant on insect pollination to maximize yield, has been exposed by the recent *Apis cerana* incursion at the port Cairns Queensland. The Committee of Inquiry recommend to the Federal Parliament, that as a matter of the highest priority, an independent, wide ranging investigation of the incident and its implications for the national interest be commissioned by the Commonwealth, with the objective of strengthening all relevant quarantine and surveillance procedures, infrastructure, personnel resources, and importantly also, long term funding arrangements.

RECOMMENDATION 8.

The Committee of Inquiry recognize industry interest about the Commonwealth proposal to dispose of the national honeybee quarantine facility at Eastern Creek, Sydney. The Committee of Inquiry recognize and recommend that the industry peak body, the AHBIC and its member bodies, need to be consulted about future national honeybee importation facilities, including locations, type of infrastructure, procedures, and establishment funding.

RECOMMENDATION 9.

The Committee of Inquiry recognize the advantages for the future viability and development of the Australian honeybee industry through the implementation of a nationally co-coordinated program for the control of AFB. The Committee of Inquiry recommend that ways and the means be found to secure the AHA and state Governments' support for the implementation of a national AFB control, monitoring, and reporting program, incorporating the principle of the successful Victorian AFB Smart program.

10.0 TERM OF REFERENCE (4). TRADE ISSUES.

- 10.1 As previously discussed, a significant challenge to the future efficient production and productivity of 60% of Australia's human and animal food and seed crops, not well understood by the wider community, is whether the future honey production sector of the Australian beekeeping industry can remain viable enough to maintain adequate honeybee population levels and therefore to continue to deliver the specialist crop pollination (fertilization) services to those horticultural and agricultural crops that require insect pollination to maximize yields. Sustained, inadequate average disposable income deriving from farm gate prices has been hurting, the sector showing signs of contracting, the net financial returns acting as disincentives for the recruitment of new participants.
- 10.2 In 2003, the serious erosion of domestic consumer confidence in honey which followed the importation of large volumes of poor quality bulk honey, mainly from Argentina, and its disposal after packing in Australia through the Australian retail market, exacerbated honey producers' problems of viability as consumers reduced honey purchases, turning to other spreads. The imported honey, unacceptable in flavor and texture to the Australian palate was also contaminated with traces of nitrofurans, a powerful antibiotic universally banned from association with food products. The resulting media fall out severely damaged consumers' long standing perception of honey as a high quality, unprocessed, nutritional, and healthy food, and damaged Australia's trading reputation for clean and green foods of the highest standard. It is this kind of circumstance which has contributed to the VAA desire to see establishment of measures, as far as it is possible to do so, to avoid such incidents occurring again, and through the resumption of a national promotional entity, to set about the task of restoring Australian consumers' confidence.
- 10.3 It has been suggested by some observers that the honey packing sector and consumers do not really need Australian honey producers anymore, that Australia could import all its requirements, and does it really matter if the honey production sector as we recognize it today, and its small GVP, does go to the wall.

The response to that proposition are many fold. The central core of this submission is that viable honey production sector participants, whether having to contend with endemic *Varroa* or not, will be the providers of the specialist honeybee crop pollination services that will be required by Australian horticulture and agriculture till the end of time. Australian honey production will continue, must continue, in doing so maintaining from season to season the large and prosperous honeybee populations required for crop pollination purposes. The Inquiry should also note that some Australian honey packing houses have relied completely on Australian produced honey for their bulk supply. They are now reaping the benefit, increasing domestic market share as consumers regain confidence in the product. Consumers have an inalienable right to be able to trust the integrity of the retail product. What then can be done, should be done, to assure Australian consumers the product they purchase off the supermarket shelf is a quality product, and how can the Australian honey production sector's viability and future development be assisted by change of some sort. Obtaining agreement for unambiguous information to appear on retail honey labels has been a concern of the VAA. A submission directed to FSANZ will be tabled at a future public hearing for the information of the Committee of Inquiry.

- 10.4 The VAA submits, the accommodation reached with AQIS for testing imported honey for chemical residue contaminants is not rigorous enough to confidently provide assurances. Further, there are implications for exporters of honey from Australia where contaminated, imported honey whether blended with Australian product or not is exported under an Australian label, there is an accident waiting to happen in the overseas market place. Not every batch of honey packed in Australia destined for export is tested by AQIS.
- 10.5 The VAA submits, prior to and following the Uruguay round of world trade negotiations that became one of the precursors to the establishment of the WTO, the Australian honeybee industry peak body of the time entered consultation with Federal Government agencies including AQIS about what would be the likely post WTO trading landscape for Australian honey. The emerging concern in the world honey trading environment about serious issues and incidents of chemical residues contamination involving some countries apiary products including honey was a driver behind the industry peak body's initiative.
- 10.6 The bottom line to the advice received from the Commonwealth was that WTO regulations would accommodate exemptions where it could be genuinely shown that sanitary conditions of respective imports could not at least equal the standards of locally produced product, and for where the animal health status of importing countries would be compromised, then governments of importing countries would be able to justify decisions not to issue permits for landing.
- 10.7 The VAA submits that given the above WTO exemption statutes remain in force, the following measures, if agreed by the Australian Honey Bee Industry Council and the Commonwealth, should not conflict with government objectives dealing with market support and trade, while providing a real potential for consolidation of honey production sector viability:
- Establish national, Federal Government accredited auditable standards for Australian produced honey.
 - that all honey imports to Australia be required by the Federal Government to at least equal Australian produced honey accredited standards, as a condition of landing.
- 10.8 The VAA submits, that a regime for Australian produced honey standards could rest on two criteria:
- National Residue Survey testing and reporting on Australian produced honey has proceeded continuously for more than 40 years, disclosing an exceptional, long term record of freedom from chemical residues. Detections have been very few and far between. Data from test results could form the benchmark of Australian honey standards for residues.
 - An Australian Federal Government accredited and auditable national AFB control program, incidence averaged annually across all states to form the benchmark standard for each following year.
- The Australian Honey Bee Industry Council supports the establishment of a national, co-ordinated program to control AFB. Unsuccessful approaches have been made as reported in 5.11 of this submission.

10.9 Given the experience of the current Victorian DPI AFB smart program, the VAA submits there is an expectation that a national AFB control program if implemented would achieve national reporting outcomes of reducing incidence. The VAA submits it is not unreasonable for imports to be required to at least equal the Australian benchmark. The issue here is that imported honey packed or blended with Australian product for retail sale in Australia carrying elevated levels of AFB spores (and its exotic variants) could compromise an Australian AFB program when used honey containers become exposed to foraging honey bees on disposal. Where it is unlawful for beekeepers to expose honey and comb to foraging honey bees, no such restriction applies regarding the disposal of containers by the general public.

10.10 Summary.

- In 2003, large volumes of contaminated honey imports, unacceptable in flavor and texture, severely eroded Australian consumer confidence in honey, from which the industry is still recovering. Another event of this nature needs to be avoided in the interest of consumers, and the honey production sector of the honeybee industry and its future prospects and development.
- There is a case for the establishment of Federal Government accredited standards for Australian produced honey, and for a requirement that all imports at least equal the Australian standards.

RECOMMENDATION 10.

Given agreement by the industry's honey production sector member bodies, scheduled to convene in early July 2007, and subsequent ratification by the Australian Honey Bee Industry Council, that the Committee of Inquiry recommend the Commonwealth consider a proposal, in consultation with the industry, to establish auditable standards for Australian produced honey, requiring all honey imports entering Australia to at least equal Australian standards.

11. **TERM OF REFERENCE (5). THE IMPACT OF LAND MANAGEMENT AND BUSHFIRES.**

11.1 Commercial beekeeping is unique among the primary industries of Australia because the primary floral resources on which its economy depends (native forest and woodlands) grow on land owned by other parties. As previously discussed the industry is mainly dependant on native plants of the myrtaceae family, principally eucalypt species, that grow on public and freehold land. In Victoria, about 35 percent of the resource is located on freehold land, 65 percent on public land, including conserved land vested in National Parks (Honey Research Council (HRC) questionnaire 1989). Temporary occupancy of the land is necessarily sporadic, often years between usages of bee sites, and geared to the migration of apiaries as floral opportunities occur from time to time, from region to region.

11.2 Arrangements for the temporary placement of apiaries on freehold land is negotiated by various private treaty arrangements with land holders. Many of these arrangements are very long standing. Farmers recognize beekeepers as people of the land, and generally recognize that significant incidental benefit sometimes occurs to themselves through having a concentrated honeybee population occasionally located on their land.

- 11.3 As disclosed at 4.11 of this submission, apiculture is regulated throughout Victoria's public lands under the provisions of various Acts, their regulations, and policies. Most of Victoria's 3,307 licensed bee sites located in Victoria's public lands reside within State Reserve Forests (2,739), and in State conserved public land, mostly national Parks (568). (DSE 2007).
- 11.4 In 1989, the HRC questionnaire determined, in percentage terms, how much of the state's melliferous resources (nectar and pollen producing) were vested in the various land categories. The results were as follows:

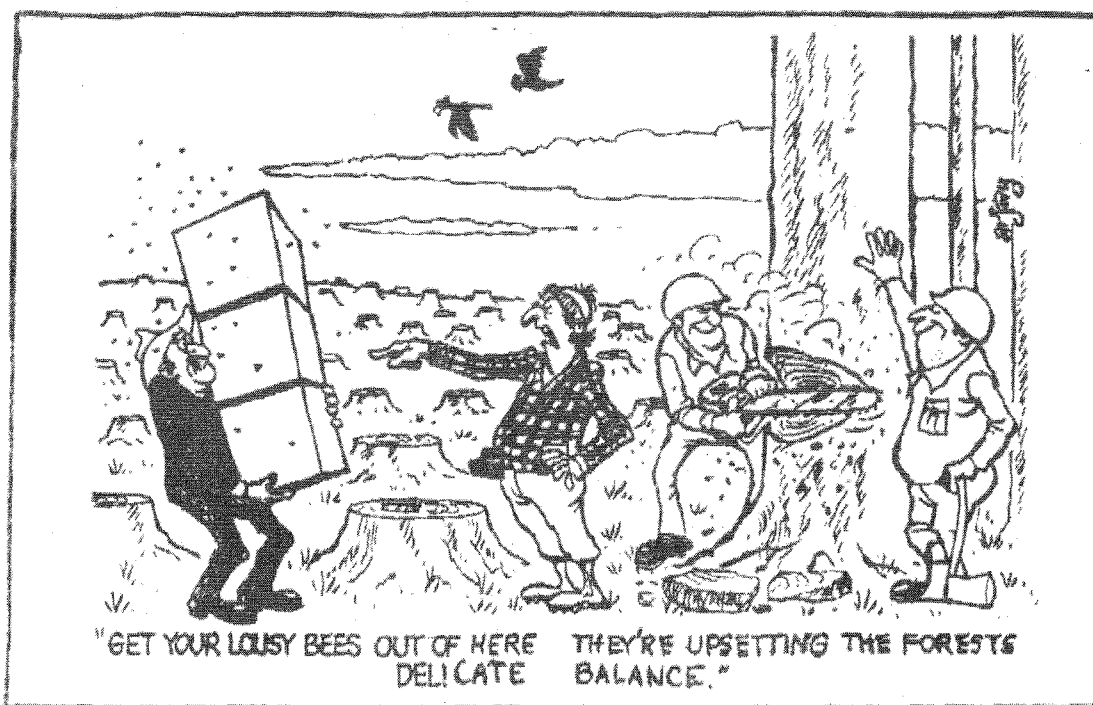
TABLE 11.

Victorian Melliferous Resources Distribution Honey Research Council 1989 Questionnaire	
	%
Freehold and Leasehold Land	35
Reserved State Forests	55
Conserved Public Land including National Parks	9
Road Sides	1
TOTAL	100

- 11.5 In 2007, the percentage of accessible melliferous resources residing in National Parks is higher, due to the progressive conservation of some of the State Reserved Forest estate to National Parks since 1989. How much higher in precise terms is an issue currently being assessed by the VAA. What is interesting is that in 1995, the total number of sites able to be occupied at any one time in Victorian National Parks was 660 (DSE 2007). In 2007 the now larger National Parks estate records 568 sites. 92 less than in 1995. Obviously, these statistics do not take into account the real attrition rate of falling bee site numbers in National Parks, given the increasing size of the estate that has occurred over the past 11 years. The death by a thousand cuts syndrome would appear to be alive and well. Even so, the VAA is unaware of any formal policy of the State Government to actively set out to reduce the number of bee sites throughout the State's National Parks.
- 11.6 The VAA, DSE, and Parks Victoria, through the consultative Apiculture on Public Land Liaison Group (APLLG), currently have this issue on the table for consideration. A key element recognized by both parties is that each Park operates under its own formal management plan, review of which is cyclical at 10 year intervals. Some of the management plans have been in place close to a decade, and are now close to being reviewed. Both parties recognize there will be opportunities to review the allocation of bee sites, and how many, in each Park progressively through the processes of review.

Critical to the industry's interest during consultation will be the need to assure National Park management that the occasional use of National Park flora by migratory apiaries does not diversely affect the reproduction success of native flora and fauna. The AHBIC national policy document, "Honeybees in Australian Conserved Forests", first published in 1987 on the scientific evidence and the logic argues very compellingly. Unfortunately, the policy has been very much under used in some other states, to the disadvantage of industry. The policy document will be tabled for consideration by the Committee of Inquiry during the round of public hearings.

- 11.7 The earlier Rural Skills Training and Research Inquiry concluded that it would like to see a government sponsored committee representing all stakeholders convened to address the issue of access for beekeepers to Australia's National Parks. Of particular concern has been the decision by the Queensland State Government to phase out beekeeping from national parks by the year 2024. The VAA submits it shares this concern for the precedent the decision establishes, with its possible implications for beekeeping as an occasional practice in conserved areas elsewhere throughout Australia. Accordingly, the VAA submits it supports the previous Inquiry's conclusion and is prepared to lend any support considered helpful to nationally coordinated consideration of this important issue.
- 11.8 The VAA submits, design of any future research program to investigate for impact of migratory managed honeybees needs to be properly focused to avoid accidental bias skewed against honeybee industry participants, and importantly, to avoid defection by stakeholders from the outcomes of research. There is a precedent for such design, effectively used in Victoria early in the 1990's decade, when the World Wildlife Fund sponsored research into the impact of migratory honeybee apiaries on a number of native bee species, while working a nectar flow from native flora located on public land. No adverse impact on the reproductive success of the native bee fauna was found. The VAA submits it became involved as a partner in this research, and would be available to make an informed contribution to any future initiative.



THE IMPACT OF BUSH FIRES (TERM OF REFERENCE 5)

- 11.9 The VAA submits, that summer lightning storms and dry seasons producing fire events are natural dynamics of the Australian environment of South Eastern Australia, and always will be so. As the landscape has incrementally dried out over a prolonged period, wild fire frequency has increased throughout the state of Victoria. Since 2002 – 03, major bushfires in North Eastern Victoria, Central Victoria and Gippsland have impacted in some cases severely on native flora and beekeeping industry prospects.
- 11.10 Impacts on preferred nectar yielding forest flora range from little crown damage, severe crown damage, to destruction of mature eucalypts. Where little crown damage has occurred, potential for production could return in 2 – 3 years. Where severe crown damage has occurred, full recovery could be as far away as 8 – 10 years. Where mature trees have fallen, replacement species regenerating will not be useful for production for something like 25 – 30 years.
- 11.11 The VAA / DSE consultative (APLLG) group has worked through the issue of what could be done to help with the cost of maintaining unproductive sites until they become useful again. It has been agreed that all site fees would be waived for two years, when the position would be reviewed. In North Eastern Victoria, following the 2006 – 07 fire, DSE was able to make a limited number of bee sites available in unburnt country of similar vegetation type, an action greatly appreciated by the industry. The issue of wider application of this principle is still on the table.
- 11.12 Currently the Victorian State Government is inquiring into the impact of public land management practices on bushfires in Victoria. The VAA submission to the State Inquiry will be tabled during the round of hearings for the information of and consideration by the Federal Committee of Inquiry into the future development of the Australian honeybee industry.

Summary.

- Commercial beekeeping is unique among the primary industries of Australia depending mainly on native plant floral resources growing on land owned and managed by other parties. Usage of freehold land is negotiated by private treaty, usage of public land is regulated by State Government licensing and permit arrangements. 65% of Victoria's honey production economy depends on public land access, 35% on freehold.
- Bee site numbers at 568 in National Parks reflect an attrition rate since 1995 that has increased as more Reserved State Forest is converted to National Parks. The VAA is unaware of any formal policy to reduce the number of bee sites in Parks.
- The VAA and its public land managers (DSE and Parks Victoria) have established a consultative mechanism known as the Apiculture in Public Land Liaison Group (APLLG). There will be an opportunity for the issue of bee site attrition in National Parks to be addressed between forthcoming reviews of respective Parks Management plans.
- The AHBIC national policy document "Honeybees in Australian Conserved Forests", first published in 1987, has been under used by some states to assist the case for access to conserved forests.
- The VAA supports the previous Rural Skills Training and Research Inquiry conclusion it would like to see a national government sponsored committee of stakeholders address the issue of access by apiaries to conserved forests in all states.

- Design of any proposed future research program to investigate for impact of migratory apiculture needs to be a collaborative exercise to prevent unintentional bias in design skewing results, and to avoid defection by stakeholders from the outcomes of research.
- The frequency and scale of bushfires in Victoria is increasing as the landscape incrementally dries out, season by season, due to decreasing rainfall.
- Impacts on forest flora range from low to severe, according to locality. Rate of forest recovery will determine when effected areas will return to production.
- In Victoria, consultation with DSE has been on the table regarding bushfire impacts. Regional DSE will recommend that bee site license / permit fees for all damaged sites will be waived for 2 years, and then reviewed again. In North Eastern Victoria, some alternative bee sites of similar vegetation types were made available.
- The Victorian State Government has launched a formal Inquiry into the impact of management practices on bushfires. The VAA has provided a submission to the Inquiry, which will be tabled at a future hearing for the information of the Committee of Inquiry.

RECOMMENDATION 11.

Consistent with the earlier Rural Skills Training and Research Inquiry conclusion, the Committee of Inquiry recommend a national, government sponsored committee of stakeholders be convened to address the issue of declining ability of Australian Honey Bee Industry participants to access conserved public land including National Parks, for the purpose of migratory honey production, and with the view of developing harmonious national and state policies.

RECOMMENDATION 12.

The Committee of Inquiry recommend that the design of any proposed future government sponsored research program to investigate for impact the practice of apiculture in conserved public land needs to be properly focused to avoid unintentional bias, possibly skewed outcomes, and defection from project outcomes by stakeholders. The Committee recommend that project design needs to be a collaborative exercise between principal stakeholders, taking particular care that project design needs to reflect the migratory, highly sporadic, and temporary occupancy nature of Australian honey production field operations.

12.0 TERM OF REFERENCE (6). THE RESEARCH AND DEVELOPMENT NEEDS OF THE INDUSTRY.

- 12.1 Clearly, the Australian honeybee industry's capacity to adequately fund required research through its matched statutory research levy on production has its profound limitations. The small industry does not have the economies of scale of larger primary industries where even modest statutory levy rates generate research funds significant in order of magnitude. Through its RIRDC honeybee R&D program the industry has been doing its best with quite a meagre budget of around \$400,000 p.a.

The industry's commitment to research can be demonstrated over the long term (since 1985). Statutory research operative and maximum levy rates have progressively been approved by producers, and compare very favorably with the larger primary industries when measured against respective GVP.

For example, the operative levy rate for honey sold at the farm gate rose from 0.8 cents per kg to 1.2 cents per kg in July 2006, and will increase again to 1.5 cents per kg from July 1st 2009. When Australian Government matching funds are applied to the revenue generated by the levy rate increases, approximately a further \$200,000 will be available for honeybee research.

- 12.2 The 2007 - 2007 Honey Bee R&D program identifies crop pollination research, pest and disease, resource access security, extension and communication, and the variability of beekeeping industry participants among its research priorities over the next 5 years, all very prominent themes discussed at the recent RIRDC Honey Bee Linkages workshop in Canberra. The workshop developed several key strategies, the development of which would assist honey bee pollination dependant industries to meet the significant challenge of having to contend with possible incursions of exotic honeybee pests now close to Australia's borders, including Varroa destructor. The development and implementation of programs such as the genetic improvement of honeybees, including resistance to pests and diseases, biosecurity arrangements, education and training and so on as components of a nationally coordinated entity framework are going to require research funding far beyond the capacity of the honeybee R&D program. The issue of floral resource access security, fundamental to the viability of honey producers, is another priority of the 2007-2012 honeybee R&D program which has implications for honeybee pollination dependant industries who would need to rely on honey producers to deliver crop pollination services in an endemic Varroa destructor ecological and agricultural landscape.
- 12.3 The VAA understands, as discussed previously, the preparation of a detailed proposal to carry forward the outcomes of the Honey Bee Linkages workshop, in the form of a national pollination network, will depend on funding from DAFF's Industry Partnership Program, application for which has been mounted by RIRDC.
- 12.4 Summary.
Research funds from honeybee industry production levies are small enough when measured against the immediate needs of the Australian honeybee industry. When considered against the extent of funding that will be required to develop and implement strategies to cope with endemic Varroa destructor in Australia's likely future agricultural and horticultural landscape, the amount becomes infinitesimal.
Accordingly, the VAA refers the Committee of Inquiry to Recommendation 7. of this submission which seeks the Committee's support for the proposal to establish a National Pollination network as proposed by the Honey Bee Linkages workshop, the Commonwealth collaborating as a partner, meeting development costs in the national interest.

Prepared on behalf of the Victorian Apiarists Association Inc.



Mr Linton Briggs - Executive Council member



Kerrin Williams - State Secretary