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**The bee-keeping in Victoria, Australia.**



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The Bee-Keeping Industry in  
Victoria, Australia.

BY

*F. R. BEUHNE, Apiculturist.*



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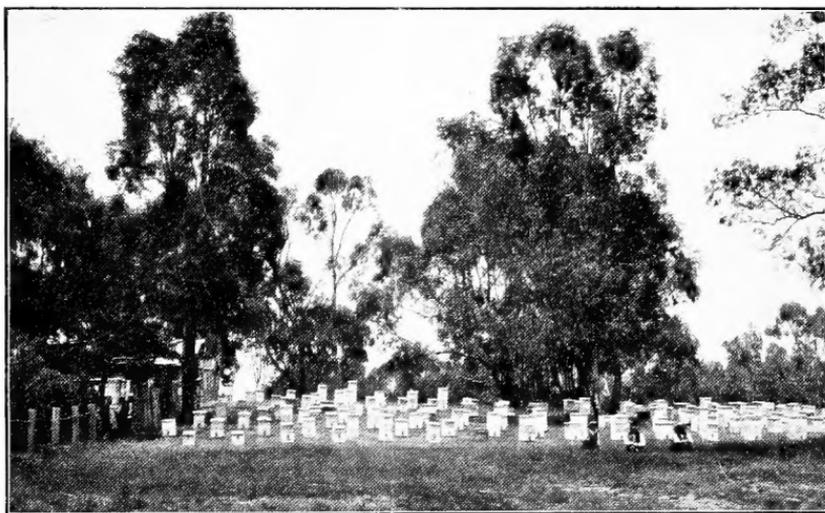
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# The Bee-Keeping Industry in Victoria, Australia.

*F. R. Beuhne, Apiculturist.*

No other rural occupation will give a better return for the capital invested and the labour applied than bee-keeping, if intelligently pursued.

In the State of Victoria, and in Australia generally, bee culture is still in its infancy. Large numbers of colonies are still kept in box-hives, and, therefore, the statistics of production do not convey a correct idea of the possible scope of the industry. There are, however, a limited number of specialist bee-keepers, working with the most modern appliances, and their returns for a number of years indicate the great possibilities of development of the industry.



A Typical Victorian Apiary.

The honey resources of Victoria which are unsurpassed by those of any other civilized country, together with a sunny climate and mild winters, make it an ideal bee-keepers' country. The wintering problem as found in many other parts of the world does not exist in Australia. The hives are left on their summer stands, neither cellars nor double-walled hives are needed. Brood rearing goes on for ten or eleven months of the year.

## THE HONEY RESOURCES OF THE STATE.

About 90 per cent. of the honey produced is gathered by the bees from the many varieties of eucalypts, and some other native trees, shrubs and plants, while the remaining 10 per cent. comes from clovers and

other introduced plants. No other tree or plant growing in such enormous numbers, secretes nectar so freely and is at the same time so independent of a regular rainfall as the eucalypt. There are vast areas of these trees, nearly 4,000,000 acres of which have been permanently reserved for forest purposes, while there are over 6,000,000 acres of other Crown lands still unoccupied, and more or less covered with



Blossom of Sugar Gum (*Eucalyptus cladocalyx*).

eucalypts. With the progress of settlement some of the native flora on the last-named area will disappear, but its place as bee forage will be taken by cultivated and such other plants as naturally establish themselves in connexion with agricultural occupation. The bee pasture of the permanent forest will remain for all time.

In no part of the State is the country fully stocked with the number of colonies it can profitably carry, while in the eastern portion there are large tracts of suitable country as yet quite untouched by bee culture.

The honey obtained from most of the eucalypts is of a high standard containing only from 12 to 17 per cent. of water, and, therefore, has a higher food value than honey from other sources. It has a characteristic aroma and flavour of its own which Australian consumers prefer to that of clover. With the advance of settlement and the rapid extension of irrigation now taking place, the amount of honey from clovers, lucerne (alfalfa), rape, &c., will rapidly increase opening up fresh fields for bee-keeping as an adjunct to fruit-growing, dairying, and other occupations.

#### PRODUCTION.

Only a fraction, perhaps not more than one-tenth of the nectar produced by the flora is at present gathered by bees. The total production of honey is still barely sufficient to meet the demands of local consumption, in consequence the price of honey in Victoria is generally somewhat in advance of other States, and the export trade of limited dimensions. When, with the general adoption of better methods, production has been cheapened and the local demand overtaken there will be no difficulty in finding oversea markets.

The Government Statist, in the latest edition of the *Victorian Year-Book* (1912-13) gives the state of the bee-keeping industry in the following figures:—

#### BEE-KEEPING STATISTICS, SEASON 1912-13.

Number of bee-keepers in the State, 4,976; number of hives, 52,723; amount of honey produced, 3,277,590 lbs.; amount of bees-wax produced, 45,354 lbs.

At the average market price of 3d. per lb. for honey, and 14d. per lb. for bees-wax, the total value of production for 1912-13 was £39,425.

According to these figures the average number of hives per bee-keeper is eleven, and the average return 14s. 11d. per hive. Examples of what has actually been done by some apiarists as given hereunder will indicate the possibilities of the industry:—

(1) Mr. ———, a city dweller, commenced bee-farming in 1906. He had no previous experience. At the end of that year he had fifty hives; at the end of 1911 he had 270 hives, and received £406 13s. 5d. for his products.

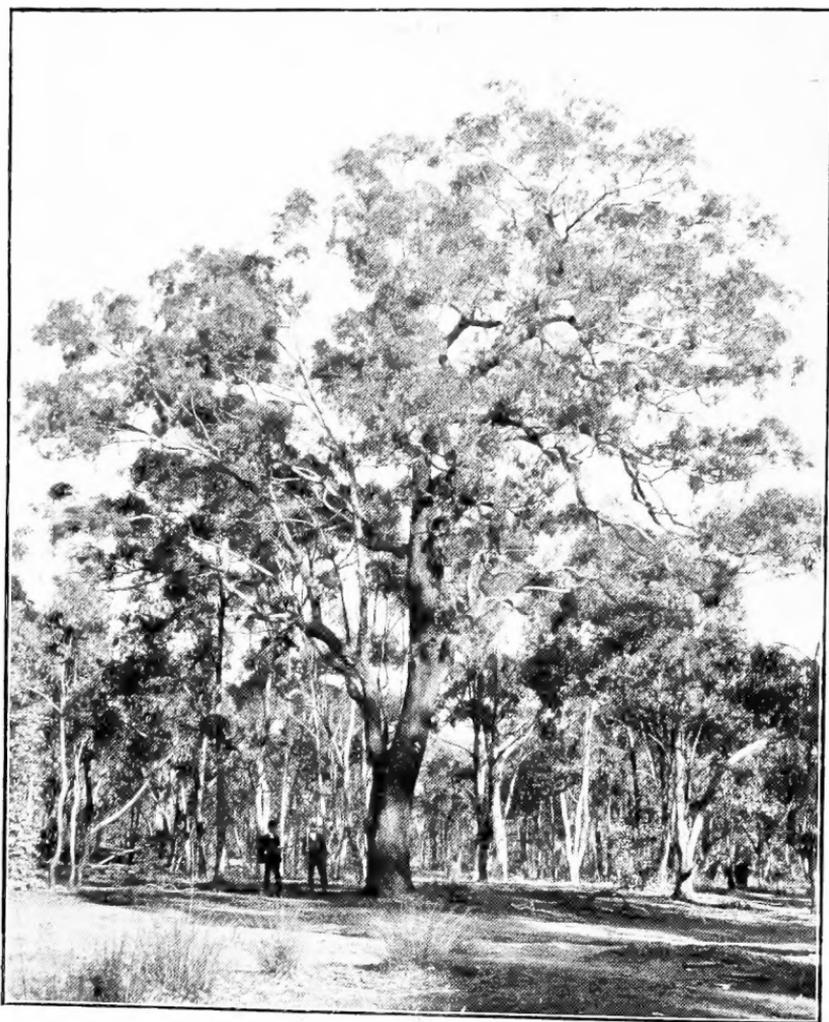
(2) Mr. ——— commenced in 1900 with two hives; he has now 200, obtaining £375 for honey alone in 1912-13, and values his apiaries and bee ranges at £4,000.

(3) Mr. ——— commenced in 1899 with an average number of 150 colonies, he has for fourteen years averaged £337 per annum.

The average returns for a number of years are given in the above examples, for isolated seasons much higher returns could be instanced such as 480 lbs. per colony for 220 hives in one season. Most of the eucalypts flower every second year a number of varieties together; fortunately this heavy blooming and extra high yield of honey does not occur in the same year all over the State. By a system of locating the

apiaries for the season, wherever the best honey-flow is expected, the returns can be further increased.

The honey produced is almost exclusively of the extracted kind, and is marketed in specially made tin cans holding 56 to 60 lbs. These are sold on commission by produce salesmen at from  $2\frac{3}{4}$ d. to  $3\frac{1}{2}$ d. per lb., according to quality and the state of the market. Very little of the honey is put up in retail packages by the bee-keepers themselves



**Yellow Box** (*Eucalyptus melliodora*) **Country.**

With proper equipment and sufficient knowledge and experience a bee-keeper could take care of 200 to 300 colonies, if not scattered in too many apiaries. Taking into account the large number of colonies which can be kept in one spot and the good average return obtained even 2d. per lb. would be a very profitable return.

There is a good demand in the cities for comb-honey in 1-lb. sections at from 6s. to 9s. per dozen; but not much is produced, as apiarists prefer the production of "extracted" which requires less skill, is easier to store, and less liable to damage in transit over long distances.

#### STATE ENCOURAGEMENT OF BEE-CULTURE.—BEE RANGES

As bee-keeping in Victoria is capable of being carried on as an independent occupation, provision has been made for the permanency and encouragement of the industry in the land laws of the State.

On any State forest or other Crown lands a bee-keeper may, on application and the payment of certain fees, obtain a bee-farm site of from 1 to 3 acres, and a range of 2,012 acres. The annual rent is 2s. 6d. per acre for the bee-farm site, and  $\frac{1}{2}$ d. per acre for the bee range. One person may hold three bee-farm sites and three bee ranges.

The bee-farm site is always the centre of the bee range which has a radius of 1 mile, and as, therefore, the nearest site held by any other bee-keeper is 2 miles distant the exclusive use of the bee forage is secured to each holder and protection afforded against infection from diseased hives, as no bee-farm site is granted without a bee range.

The present holders of the bee ranges devote themselves almost exclusively to honey production, the grazing lease of the area being often held by some one else. When the grazing lease over the country comprising his bee range or ranges can also be obtained by the bee-keeper, he can add to his income by running sheep. The grazing capacity of bee country is not great, but on an average, perhaps, £50 per annum, for wool could be obtained on a bee range. The grazing lease carries with it the condition to fence the area, while in the case of the bee range the boundary is merely the limit of the bees' flight in search of nectar.

#### INSPECTION OF APIARIES AND INSTRUCTION OF BEE-KEEPERS.

There is but little of the disease known as foul brood in this State, the climate being unfavorable to its propagation, but a Bee Diseases Law is in force, which protects the intelligent and careful bee-keeper against the ignorance or carelessness of neighbours. Large districts in which box hive bee-keeping has been abandoned in favour of the modern frame-hive system are entirely free from disease, while with the gradual compulsory abolition of the remaining box hives under the provisions of the Bee Diseases Act, foul brood will be further reduced or entirely suppressed.

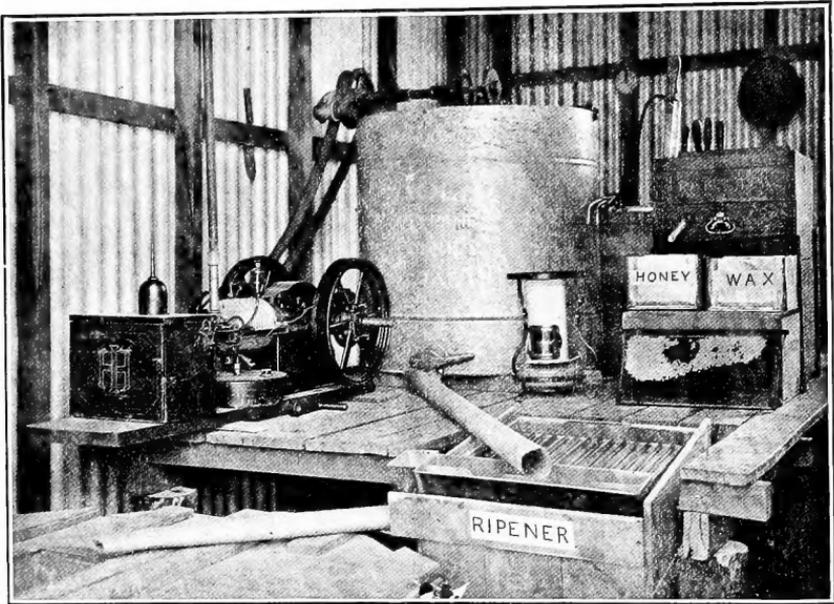
Of the colonies examined by the inspector under the Bee Diseases Act during the first year of its operation only 1.8 per cent. were found infected and only in a mild form curable by the usual treatment without destruction of the bees.

Instruction and advice are given by the inspector on all apicultural subjects, during his visit to apiaries, by means of lectures in bee-keeping centres, and in the office by correspondence.

An experimental apiary has been established at Burnley, near Melbourne, by the Live Stock Division of the Department of Agriculture. Experiments are conducted there which cannot be undertaken by

bee-keepers themselves. A short course of lectures on bee-keeping for beginners is held in the spring of the year and practical demonstrations given in the handling of bees and the use of appliances.

To the experimental apiary it is hoped to add a queen-raising establishment to supply apiarists with high-class queen bees for the improvement of their present strains. The *Journal of the Department of Agriculture*, which is published monthly, contains instructive seasonable articles on bee-keeping, while all further information may be obtained on application. An illustrated manual of Bee-keeping in Victoria, including a detailed description of the honey flora of the State, is nearly completed, and will shortly be published by the Department of Agriculture.



Plant of a Modern Apiary.

#### LOW RAILWAY FREIGHTS.

As the railways of Victoria are State owned more attention in fixing the rates of freight is given to the encouragement of rural industries and the development of the resources of the State than could be expected from railways privately owned, the main object of which is the production of dividends.

The rates for the carriage of apiary products and supplies have been repeatedly reduced in recent years with a view of assisting the bee-keeping industry. Honey and hive material is now carried on the railways at a rate averaging  $1\frac{1}{2}$ d. a ton per mile, while the rate for hives of bees is 7d. a mile per truck load of 3 tons. Bees may thus be safely moved long distances at very little expense and the profits of the occupation increased by locating the apiaries where the best honey flow for the season is expected.

**BEES, HIVES, AND APPLIANCES.**

The race of bees which experience has proved the most suitable for Victoria is the Italian, of the leather-coloured variety. Italians and their crosses are kept by all the larger honey producers. In some districts black bees of the European species in a wild state are numerous, and many of the present bee-keepers started with this kind of stock, cutting their nests out of trees or securing flying swarms.

The hives, frames, honey extractors, and appliances generally throughout the State are of American pattern, but chiefly of Australian manufacture. The hive in general use is the Langstroth, either eight or ten frame capacity, but there is also a small number of large apiarists who use a modified form of Heddon hive. Home-made hives, made out of kerosene or petrol cases, are still largely used, but where it is intended to move apiaries to catch the alternating honey flows they are



**Bees in the Orchard.**

being discarded in favour of factory-made hives. There are several factories for the manufacture of bee-keepers' supplies and agencies of American manufacturers, and no difficulty is therefore experienced in getting everything required.

A bee-journal, *The Australasian Bee-keeper*, published monthly, circulates throughout Australia. There are several bee-keepers associations in the States, the principal one of which is The Victorian Apiarists' Association. One of its rules regulates the distances of members' apiaries from one another, while another one guarantees the purity of the products.

**HOW TO COMMENCE BEE-KEEPING.**

Any bee-keeper who is a master of the craft in some other part of the world would know how to adapt his method and practice to the

peculiar conditions of climate and flora in this southern land, and could embark in bee-keeping somewhat extensively at once. For any one not so well equipped it would be better to work for at least one season in a well-managed Victorian apiary before commencing operations on his own account or failing to find a vacancy to go slowly and begin in a small way.

Bee-keeping is an intricate business and proficiency cannot be acquired in one season. If adopted as the sole occupation by any one having a natural aptitude for it together with patience and good business methods, it is a very profitable and interesting pursuit. If carried on in connexion with some other calling it is a valuable side line. It is above all a healthy and fascinating out-door occupation for which no other country offers better opportunities than the State of Victoria.







