

or his honey crop lets him. This moving in or out of the market has a serious effect on the well established packers in all three aspects, Quality, Quantity and most important of all, Price. Such a system I should insist on, should leave the individual beekeeper to sell to the public direct from the Apiary door, but more importantly to bring a more co-ordinated and orderly approach to honey marketing in general.

Conclusion

Throughout the year I have been greatly assisted by my Executive and the Executive Officer Mr Graham Beard and his staff. My sincere thanks for their support and co-operation in a busy year.

I would like to conclude my remarks by saying that the industry has in the last year taken the big step towards maturity. There is scope and opportunity for development for those with the enterprise to capitalise on these opportunities. The industry has a wonderful range of high quality honeys to offer a receptive market. The organisations that work in your interest must accept the collective responsibility on your behalf to make the most of those opportunities and above all let us be proud to belong to an industry that makes such a worthwhile contribution to our nation.

Individually, or as a separate section of the industry, we can turn away from a problem facing us, saying, that it is not our concern, but a matter for another section or individual to solve. This industry just cannot afford to do this. As an industry, we have got to get it all together and work together. Let's all look to the positive and above all be positive, keeping in mind that it is one thing to make ourselves aware of what the problems are, it is more important that once we understand them we all face them fairly and squarely and begin the attack on the solutions; and I am sure we will find the solutions are there.

Report presented to 1975 Timaru Conference

Ministry of Agriculture and Fisheries Apiculture Section

Inspection of Apiaries

Check inspection of apiaries for bee disease by Apiary Instructors was continued with assistance from competent beekeepers acting as Temporary Apiary Inspectors.

The overall incidence of diseased apiaries and hives found by Inspectors and notified by beekeepers in the 1974-75 season was 2.68 per cent and 0.42 per cent respectively. The total number of diseased hives burnt was 868.

This incidence indicates satisfactory control is being maintained by most beekeepers. The annual percentage of apiaries and hives with disease over the last five years has averaged 2.8 per cent and 0.42 per cent respectively

Honey Production

Honey production for the 1974-75 season was an estimated 7400 tonnes which is approximately 550 tonnes more than the previous record crop in the

1968-69 season, and about 1700 tonnes more than the average production of the past six years.

Above average crops were produced in all districts, except in Northland and Auckland where the crops were about average to below average.

Honey Grading

The total of bulk extracted honey submitted for export grading as at August 1974 totalled 1456 tonnes. Of this 1372 tonnes were graded as suitable for export.

The total of comb honey graded for export was 169 tonnes, and 11 tonnes of extracted honey in retail, containers shipped by producer-packers were graded. The decline in comb honey exports is attributed to unfavourable climatic factors in northern districts during the summer of 1973/74.

An improvement in overall quality was evident. The dry summer of 1973/74 was a contributing factor in reducing the amount of low specific gravity honeys produced.

Honey which failed to comply with the standards for export were rejected for the following reasons:—

Fermentation and low specific gravity	36 tonnes
Containers damaged, rusty or having previously contained substances other than honey	28 tonnes
Condition faults — unstrained, burnt, foreign taints	14 tonnes
Colour — too dark	1 tonne
Flavour — too strong (Objectionable)	2 tonnes
Tainted with honey dew	3 tonnes

Total rejected for export 84 tonnes

Restricted Areas for Honey Production

Eighteen (18) permits were issued to 18 beekeepers to establish 3375 hives in the Restricted Areas for early brood rearing and for production of honey. All hives were removed from the restricted areas by due date in accordance with the conditions of the permit.

Eleven test apiaries are maintained within the restricted areas. Seven of these are located in Coromandel Peninsula areas and four in the Eastern Bay of Plenty. Honey samples were taken from these apiaries each month during

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mid-summer and forwarded to the Wallaceville Animal Research Centre for toxicity testing.

Exports of Queen Bees

The development of the export market to Canada for queen bees has experienced some difficulties and loss of interest is being shown by some beekeepers in supplying this market. On present indications there could be a growing demand in Canada and other overseas countries for New Zealand queens.

During the year export shipments of queen bees were sent to Canada, United Kingdom, Australia, Indonesia, New Hebrides and Papua New Guinea.

ADVISORY WORK

Publications

Apiary Section staff have continued to submit articles for publication in "The New Zealand Beekeeper". These have included articles on metrication, the North Island 1974 Beekeeper Seminar, the Gore Seminar, sugar feeding and pollen substitutes. Articles on other aspects of apiculture have been published in "The N.Z. Journal of Agriculture" newspapers and other publications.

1974 Beekeepers Seminar — Taupo

This three-day seminar and field day was held at Taupo, 13-15 August 1974. The theme of the seminar was "Honey: its production, processing, packaging and promotion". Over 160 persons attended, listened to the 27 prepared papers, and visited two leading honey-houses in the Taupo district. A 138 page "Proceedings of the 1974 Beekeepers' Seminar" was prepared and distributed to participants, N.B.A. Branches and major libraries.

Course on "Queen Bee Production"

This course was limited to 16 beekeepers and was held at the Ministry's Flock House, Manawatu training farm during January 20-24, 1975. Most aspects of queen rearing, breeding, programming economics and marketing were discussed in detail.

N.B.A. Meetings and Field Days

Apiary Section staff have attended and participated at a number of meetings and field-days during the past year.

INVESTIGATIONAL AND TRIAL WORK

Metrication of Beekeeping Equipment

In 1974 the Ministry presented to the industry at two sector meetings its proposals for standard metric hive measurements. Following discussions certain measurements were adopted as the New Zealand standard. These have since been published (November 1974 N.Z. Beekeeper). The metric dimensions improve the bee spacing within the hive and will result in equipment that is fully interchangeable with imperial equipment. The timber industry has converted to metric timber sizes this year and beekeepers are urged to follow suit.

Nosema Disease Survey

A random survey, involving the taking of 283 samples from commercial apiaries throughout New Zealand was conducted during the months of October and November 1973. The samples were analysed for *Nosema Apis* spores and preliminary results were presented at the 1974 Beekeepers' Seminar. In the season of testing New Zealand had a light medium level of infection, with 89

percent of the samples exhibiting *Nosema* spores. A final report is in preparation.

Queen Bee Production Survey

This survey was conducted in the North Island amongst commercial category beekeepers during 1974. One aspect of the survey showed that the majority of beekeepers re-queened at an average rate of once in four years, although most beekeepers preferred to re-queen at least once every two years. This low rate of queen replacement is of concern to the Ministry and highlights an industry problem. A report on this survey is in preparation.

New Nectar Sources

Small scale trials with new nectar sources were carried out in the South Island. A small sample of buckwheat seed sown at Seddon did very well and produced seed for an increased area of planting. The small pinkish/white flowers were very attractive to bees although they only seemed to work the crop early in the morning. The buckwheat stood up to the severe dry conditions very well.

A small area of sweet clover also grown at Seddon did well and produced a good set. However, little was harvested as the dry conditions made the plant stems very brittle. Consequently the seed was shaken off by the wind and the action of the header.

One hundred *Robinia pseudacacia* trees were planted at Weedons and observations on their growth rates and eventual nectar secretion abilities will be made. A further 600 are to be planted. Hare damage and droughts during the past summer retarded growth somewhat. *Robinia* is being advocated as a multi-purpose shelter tree.

Requeening Without Dequeening Using Protected Queen Cells

Protected queen cells were introduced into 96 hives in the spring of 1973. Sixty percent were successfully requeened. This compares with 41% success for the previous season although different apiaries were used. It was much easier to replace two year old queens than one year old. The success rate for the two year old queens was 74%. A further 85 cells were put out in the spring of 1974 and the results will be evaluated and published.

Viscous Honey

Extracting viscous honey (13-16.5% moisture) in Southland presents many handling problems. Steam was injected into the extractors in several honey houses with beneficial results. The relative humidity was also increased in hot rooms. A lack of honey refractometers is apparent. A humidifier with a humidistat has been built and appears to be working satisfactorily. Discussion groups were held to help beekeepers overcome the problems of low viscosity honey.

Agricultural Chemicals

Applications to spray flowering oil seed rape crops for aphid control prompted a field trial. Dichlorvos was applied by air to 22 acres of flowering rape in the evening when no bees were flying. White clover crops treated in this way are safe for bees to work the next morning.

This trial showed, however, that when dichlorvos is similarly applied to flowering oil-seed rape, bees working the crop are killed for the whole of the following day.