

# BEEKEEPING IN ISRAEL

by GENE ROBINSON

**T**HE "bee industry" in Israel is thoroughly acquainted with the most modern and efficient managing techniques. In fact, despite its small size and population, Israel ranks 4th per capita, in world honey production. In 1973, Israel produced 4 million pounds of honey according to the USDA foreign agricultural circular.

Israel has a total of 513 beekeeping operations — 43 of these could be called by American standards "big-time," with 300 or more hives in their charge. All together, Israel has a population of 50,000 colonies of honey bees.

As many apiarists undoubtedly know, it often is very hard to begin a larger apiary, because of the cost of essential equipment. This problem is avoided in Israel, as many apiaries are located in agricultural communities known as Kibbutzim and Moshavim, where a spirit of economic cooperation prevails, and capital is available for these types of endeavors.

## The Honey Season

Israel's honey season is similar to Florida's and Southern California's. The first flowers bloom in March, fol-

lowed by the flowering of Israel's plentiful citrus groves in April. Preparation for the citrus honey flow begins in February, with the creation of new colonies, swarm control practices and the moving of the hives to the citrus groves. The citrus honey flow marks the busiest time of the year for the Israeli beekeeper, as 50 per cent of all honey produced in Israel is citrus. According to statistics provided by the Israel Honey Marketing Board, the average hive collects 35 to 40 pounds of citrus honey per year.

At the conclusion of the citrus honey flow, the hives are transported to areas where wild flowers are plentiful in the summer months. Two wild-flower honey flows occur, one in late June to early July and another in late September to early October. These flows produce another 40 pounds of honey per hive.

## The Israeli Apiary

In addition to normal honey production, pollination, queen-rearing and royal jelly production are part of some apiary's scope of work. Approximately 19,000 hives were used last year in

Israel to pollinate almonds, alfalfa, clover, melons, avocados, onions and citrus crops. The queen-rearing operation provides for all of Israel's queen needs, with the exception of a small percentage imported from the United States to insure the continued purity of the strain. Israeli royal jelly production is a smaller but highly successful enterprise, as royal jelly is a very popular health food, particularly in Europe.

The Israeli honey production industry is almost entirely self-sufficient, since hives, comb-frames, pressed wax foundations and small mechanical equipment used by the beekeeper are all manufactured in Israel. The sole exception is larger equipment, such as large extractors and trucks.

The dominant strain of bee found in an Israeli apiary is the Italian-American hybrid. However, there is a wild honey bee, native to Israel, known as the Palestinian or Sabra (Hebrew expression for native Israeli), which is quite numerous, often mating with the Italian queens producing a mixed strain. The Sabra bee is an excellent honey producer, but is (as is the case with the Sabra's close relative, the Syrian bee) of a terrible disposition, making working conditions most uncomfortable. Many Israeli beekeepers try to prevent the Sabra bee from infiltrating their apiary by isolating their queen rearing sites and by replacing any known Sabra queens.

## Distribution of Israeli Honey

The marketing of Israeli produced honey is another interesting and very unique aspect of the Israeli beekeeping industry. All honey distribution for both exporting and domestic purposes is handled by the Israel National Honey Marketing Board. The Board is a cooperative, run under the auspices of the Ministries of Agriculture, Trade and Economy, as well as by the beekeepers of Israel, through their tax paid to the Board on each hive in their apiary.

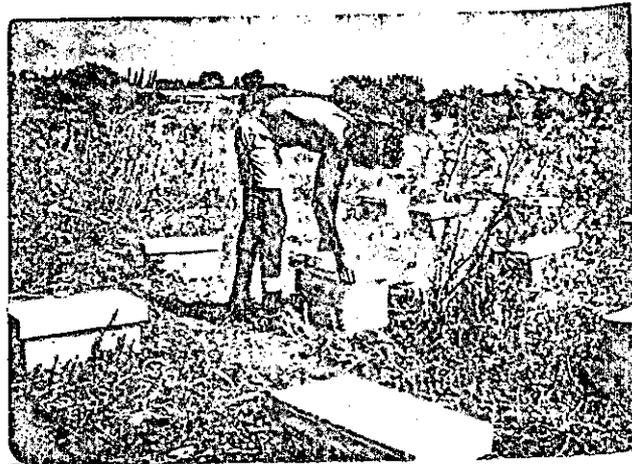
Because of this organization, Israeli honey producers are assured of a uni-



An Israeli apiary located in the Jordan Valley.



Shown here is the beekeeping work force of Kibbutz Bet Hashita. Mr. Robinson is the man on the left.



This beekeeper is checking one of the apiary's queen rearing sites.

form and fair price in the world market. The Board arranges for 1/3 of the crop to be exported to England, Switzerland, Germany, Japan, Scandinavia and the United States. The Board handles all aspects of the exporting process, including packaging, transportation to the harbors, and shipping arrangements.

The Israeli Honey Board also is very active in the internal affairs of the beekeepers. Based on national needs, the Board determines what percentage of an apiary's crop will go to the national food cooperative, with the remaining portion allowed to be sold privately. The Board is also responsible for investigating and testing new equipment, and for arranging equipmental purchases, including importing arrangements.

An important part of the Board's responsibilities to the internal affairs of the beekeepers in Israel is their role as coordinator and arbitrator in determining where a beekeeper can set up an apiary. Each beekeeper, after receiving permission from the owner of the land to set up his hives on a certain spot, must request permission from the Board to place his bees in that spot. The Board then settles any conflicting claims there might be on that certain piece of land. This insures a smoother operating industry, with a minimum of misunderstanding and ill-feeling.

The Board is also in close touch with beekeepers throughout the country in regards to damage to an apiary because of disease, insect-caused destruction and pesticidal effects. The Board employs a specialist in the area of bee pathology. In addition, the Board provides compensation to those apiaries seriously damaged for the above reasons and in the case of damage caused by a natural disaster, such as a fire, which is especially dangerous during

the long, hot and dry summer of Israel.

#### Spirit of Cooperation

In addition to the Honey Board's economic orientation, the beekeepers are involved under the Board's auspices in a more informal cooperative. Through this organization, supplies are bought at substantially lower prices, and discussions and instructional sessions are held to discuss new methods and theories of beekeeping.

As one can see, the spirit of cooperation is a very dominant one among beekeepers in Israel. This cooperation makes for more efficient honey production, as people work together to increase efficiency.

A graphic example of the nature of this cooperativeness was seen in June of 1974. Terrorists attacked Kibbutz Shamir, destroying their apiary during the middle of a main honey flow. Immediately, beekeepers from all over the country offered both equipment and manpower to aid their comrades.

There is one area in the honey industry, however, in which this spirit of cooperation is sorely missed. According to Tzvi Hameiri, founder and head of the Israel National Honey Marketing Board, 5 per cent of all the honey bee colonies are lost each year because farmers are unaware and insensitive to the impact of chemical pesticides on the honey bee. This is the most serious problem facing beekeepers in Israel, reports Tzvi, as only minimal damage is, caused by American Foulbrood, the Middle-Eastern Wasp and the Wax Moth.

Quite obviously, this article goes beyond the boundaries of a strict informative article, and appears to be a more emotional presentation. This is true, as my knowledge of this subject was gained first-hand during the past

year, where I lived on Kibbutz Bet Hashita and worked in its apiary.

In addition to learning the mechanics of beekeeping in Israel, I was part of the cooperative life-style of the kibbutz. Our apiary was not only an industry, but an integral part of the community. Let me cite a few examples: An observation hive was set up and maintained by the beekeeping force for the school, to help them learn about honey bees. On the holiday celebrating the first harvests of the year, our first harvest, orange blossom honey, was given to every member of the kibbutz.

The apiary's work-force and equipment were available to any other branch of the kibbutz when needed, just as we were able to have the use of additional men and equipment, as our needs dictated.

It is with this spirit of cooperation, together with the high level of organization, knowledge and expertise on the part of the Israeli beekeepers that insures their continued success and constant improvement in the field of honey production.

#### Question

Can one winter bees in a barn?

#### Answer

Bees should never be moved to a barn, garage, basement or any other enclosure for winter as they must have cleansing flights and not allowed to get out, will wear themselves out and die. If they are moved to a barn or other structure, when they do get out, they will be lost and possibly will not return to the hive. A hive should be out in the open so when the winter sun does warm the inside of the hive, the bees will cleanse themselves and be ready for another long cold spell.