



BEEKEEPING IN THE MALTESE ISLANDS

by *VICTOR FARRUGIA, HNDH*
(*Original Manuscript*)

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History

Beekeeping has been practised in Malta for thousands of years, and although this Island is not a comparatively large producer of honey, it has been noted world-wide for the quality of its honey. The name Malta is derived from Melita, the name by which the island was known some 2000 years ago. Melita in turn is derived from a Greek word, *Μελι*, meaning honey. One of the larger valleys in Malta has been aptly called Honey Valley from time immemorial.

In 1915 Professor John Borg linked beekeeping in the Maltese Islands to the dawn of their history, when the Phoenicians settled in Malta some 4000 years ago. He concluded that *IMGIEBAH*, renowned for the abundance of wild thyme, is derived from a Phoenician word for clay hives; the same word in Maltese now has the same meaning.

Geographical Position

Although Malta covers only about 100 square miles, crops mature earlier in the southern part and the bees start storing honey earlier there than in the north, where the temperature is lower. Also the land is more fertile (and irrigated) in the south and more rocky in the north. So with Red Clover (*Hedisarum coronarium*) mainly in the south and Mediterranean wild thyme (*Coridothymus capitatus*) in the rocky areas of the north, migratory beekeeping is practised for these two honey flows. The active beekeeping season in Malta is a month or two earlier than in the south of England.

Climatic Conditions

The climate is sub-tropical, the temperature very rarely falling to freezing point, but often reaching 104°F (40°C) in the shade during a hot summer. Bees can forage for practically twelve months a year, but the hot dry summers are a drawback, and the bees must be provided with a permanent source of water near the apiary. Shade and adequate ventilation for the hives are also essential during this period.

The hives are usually painted white, and their roofs covered during the summer months with fleshy leaves of the prickly pear (*Opuntia ficus-indica*) or palm fronds (*Phoenix canariensis*), or a makeshift awning of wild reeds (*Arundo donax*) collected locally.

The high summer temperatures are advantageous in queen rearing, in that the developmental period of the queen is 2-3 days shorter than in northern countries.

In deciding where to site a new apiary, wind is an important

factor. The Islands are subject to frequent north-westerly winds which can reach gale force. Valleys are therefore much sought after, and a southerly aspect is usually chosen. As a result of the winds, many bees are lost during foraging, and there is much drifting to other hives, which can lead to robbing and the spread of disease. Windy days also reduce the number of foraging hours for the bees; when the wind reaches Force 5, the bees usually remain in the hives.

Maltese Flora The native wild flora of the Maltese Islands provide useful bee forage between the main flows; the most important are listed in the floral Appendix. Pollen loads range from black from the Bristly poppy, through yellow and orange (Cape sorrell and common vetch) to white from the White wall-rocket. The Bee orchid (*Ophrys apifera*) is occasionally found in Malta.

Honey Types The main honey, usually extracted in July-August, is from Mediterranean wild thyme. It is reddish-brown, and has the best flavour. Flowering may last from May to the end of July, depending on the season.

Red clover honey is extracted in large quantities in May, but its flavour is not quite as good; it has a yellowish colour. Red clover (*Hedysarum coronarium*) may be in flower from February to May.

Small quantities of other honeys are extracted by specialists: carob honey from the locust tree (*Ceratonia siliqua*), and citrus honey mainly from oranges, lemon and tangerine blossoms. There are only small local fruit growers, who do not hire bees for pollination. There is some indiscriminate spraying of insecticides on trees at blossom time, with resultant bee mortality.

Traditional Hives The traditional Maltese hive is a bottle-shaped earthenware jar open at both ends. At one end is a neck about 3 inches in diameter; the main part is about 10 inches in diameter. To the open end of which is fitted an open-ended clay cylinder of the same diameter, about 18 inches long, which serves as a honey chamber. More than one open cylinder may be used; the open end at the back of the hive is usually closed with a piece of cardboard or wood, held firmly in place with a stone or other heavy object. The neck of the brood chamber serves as the hive entrance; its size can be adjusted by stuffing in a piece of sack cloth.

These earthenware jars, which are still used by some beekeepers have the advantage of an equable temperature inside them (about 75°F, 24°C) day and night, and they are relatively cheap. The combs are securely attached to their rough inner surface. Honey is usually extracted by removing the honey combs and pressing them by hand or with a mechanical press, and then straining. Honeys from different flows are all dealt with together. Their disadvantages are many: (a) no queen excluder is used, so brood is usually mixed with honey in the supers; (b) the progress of the colony cannot be assessed by inspection of the combs; (c) control of pests and diseases is difficult; (d) the bees have to rebuild combs after the honey is harvested.

Modern Hives

Wooden frame hives were introduced towards the middle of the present century. Today they are constructed locally, from red or white deal. Most hives are Modified Dadant, Langstroth, British National, or British Modified Commercial. Relatively little space is needed for winter stores, so a large brood chamber is not needed. For this reason the Modified Commercial hive is preferred to the Dadant: two shallow brood chambers provide adequate space during the build-up period, and the brood chamber can be reduced later to single shallow, to get more honey into the supers during the flow.

The transfer of a colony from an earthenware jar to a frame hive is a messy job, requiring skill and patience,. It is best tackled in the winter months when the wax combs are harder and less likely to be damaged.

Beekeepers

Most of the larger towns in Malta have little in the way of open green areas, and bees cannot be kept in them. Hence, the art and skill of beekeeping has always been the prerogative of rural people, and among these, mainly land tenants. In days gone by, beekeeping was only a sideline to the local farmer: hives were placed in the least-used part of a field, and handled only once a year, to harvest whatever honey could be taken from them. The older rural generation had little money or time to educate themselves prior to the last World War, when education had to be paid for by the individual. Many of the old country folk are illiterate or partly so. Up to a few decades ago, beekeeping practice in the Maltese Islands was practically isolated from the mainstream of development in the rest of the world. The techniques of beekeeping in Malta have thus been passed on from one generation to the next by word of mouth, each generation adding its own observations and innovations.

The characteristics of Maltese beekeeping include the knowledge by beekeepers of the special relationship between the life history of the local bees and the Maltese flora, and the native enemies such as the blue rock thrush (il-merill), the national bird, the bee-eater, and the death's head hawk moth.

Moreover, local remedies have been developed for easing the pain of stings and the prevention of swelling, including the use of spirits, oils, onions and other local herbs. The use of beeswax for polishing marble and wood, and of honey to cure sundry ailments according to local folk medicine, must have evolved here as in other countries.

Swarming

The only way an old-time beekeeper could increase his stock was by encouraging his colonies to swarm, which they usually do between mid-March and mid-April. Swarming before mid-March, though welcomed, is very rare, and any swarms after mid-April, are not worth taking. To attract swarms to establish themselves in a prepared earthenware jar, the inner surface is rubbed with balm extract from cultivated plants (*Melissa officinalis*), then some comb honey or sugar syrup is left inside the jar. If this lure fails, the beekeeper - who usually spends every day at swarming time watching his hives - is always ready to hive any swarm that becomes available. If broad beans which are normally in flower at the time of swarming are planted near the hives, and almond trees grown around the apiary, it is said that swarms

will be attracted to cluster on them.

Bee races

It has not been established that a pure Maltese race of bees existed at any time in the island's long history of beekeeping, but the possibility is not excluded, because Malta must have been isolated for a long period.

The present interbred strains of bees are black and rather small; some beekeepers claim that their queens manage to pass through a queen excluder, but, I cannot confirm this. The local bees have a tendency to sting the operator and other living things within a considerable distance. The swarming habits of the local strains are greatly influenced by the fact that local beekeepers still encourage swarming. Thus, if the local bees have been bred for anything, they have surely been bred to swarm.

Over the last few decades, bees of yellow races have been introduced in large numbers and they have interbred with the all-black strains. The local dark bee may or may not be best suited to the islands, but careful comparative experiments should be carried out before the wholesale importation of foreign bees which may, in time, cause the local dark bee to become extinct.

Pests and Diseases

Nosema and foul brood diseases are not common in the Maltese Islands, but dysentery and acarine disease occur. Due to lack of inspection of hives, and the weakening of colonies after a long dry spell, beekeepers often complain that their hives have been overrun by wax moths. Other pests include ants, which usually invade the hive at night, and some birds as already mentioned. APIMYIASIS, due to a red parasitic mite, is also found, but is neither common nor lethal.