



Eva Crane Trust

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- Kashmir Shah (1959)
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ABSTRACT

The tropical countries are frequented by the vast majority of economically useful bees. Characteristics of important *Apis* species are considered and data is given on their distribution and adaptability.

Expressions of the productiveness of honey as yield per unit area or yield per hive are compared. Yield is largely dependant upon the plant species foraged and some specimen figures are presented, though representative figures for solely tropical plants have yet to be made. Modern methods of honey production are reviewed and information is given on the number of hives that can be managed single-handed in different countries.

Exports of honey are greatest from several countries which are in or adjacent to the Neotropics. Factors are noted which influence the development of a bee industry in any new area. Particulars are given of more primitive methods of honey production; these are considered by the author to be usefully suited to less advanced tropical areas. Present world honey production is estimated to be around half a million tons yearly. It is submitted that this figure might well be doubled following development in the tropical and sub-tropical countries.

In a section describing the production of beeswax, it is observed that because beeswax possesses certain specific properties, the demand for this commodity still exceeds the supply. It is mostly produced in Africa, where fixed combs are customary, and fetches from four to eight times as much per pound as honey.

Turning to the part played by bees in crop pollination the author surveys published work on this subject and adds interesting data on specific tropical crops. Examples are provided of bee species which are spectacularly efficient at pollination, and the attributes of Apis mellifera as a general pollinator in modern agriculture are noted.

Other hive products of economic value are assessed: Pollen, recognised as a rich source of protein and vitamins, as well as containing biologically active substances including a very active antibiotic. Its harvesting is described; Royal Jelly, with interesting biologically active properties, for which there is a widespread demand; Honeybee Brood with a rich vitamin content, widely acceptable as a food in Africa; and Bee Venom and Propolis, both valuable for their medicinal applications. Attention is drawn to the market which exists for live bees. It is observed for example that 4,000 packages of live bees were exported to Britain from the U.S.A. in 1963.

A further section deals with the changes that affect bee populations following agricultural developments. The honeybee, it is pointed out, is the only pollinator that can be taken to any type of crop and which is able to pollinate a very wide variety of flowers. There follows a warning of the threat to bees and other pollinators in the tropics which may result from the unregulated use of pesticides.

Finally the author summarises the advantages of beekeeping in the tropics, not the least of which is the probability of very high yields from many of these areas of virgin land. The need is expressed for a central clearing house of information and provision for the discussion of common problems to assist the expansion of this profitable industry in the tropics.

The text is augmented by a select list of general surveys of beekeeping in different parts of the tropics, over 150 references, and 15 figures.

Handling *A. mellifera* in a
modern apiary (Mexico)

Miel Carlota



Handling *Apis indica* in Ceylon

S. Perera



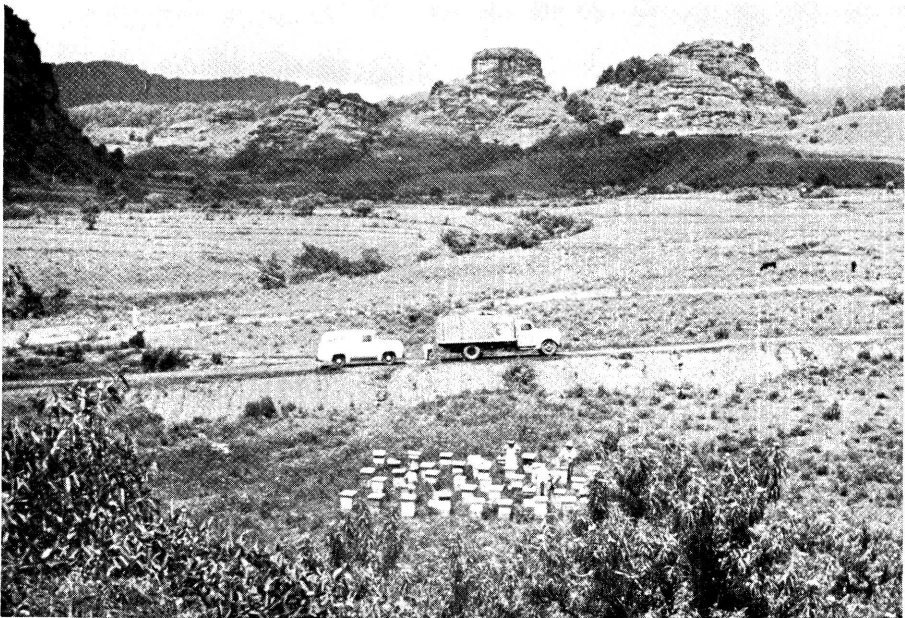


The Saharan bee is kept in wall cavities as a protection against the heat. The smoker fuel is camel dung (Erfoud, Morocco).

E. Crane

Typical modern apiary, with transport (Mexico)

Miel Carlota





Typical bark hive in Kenya. They are hung in trees for protection against predators and grass fires.

Kenya Information Services



Apiary of movable-comb hives in Greece

P. G. Georgantas

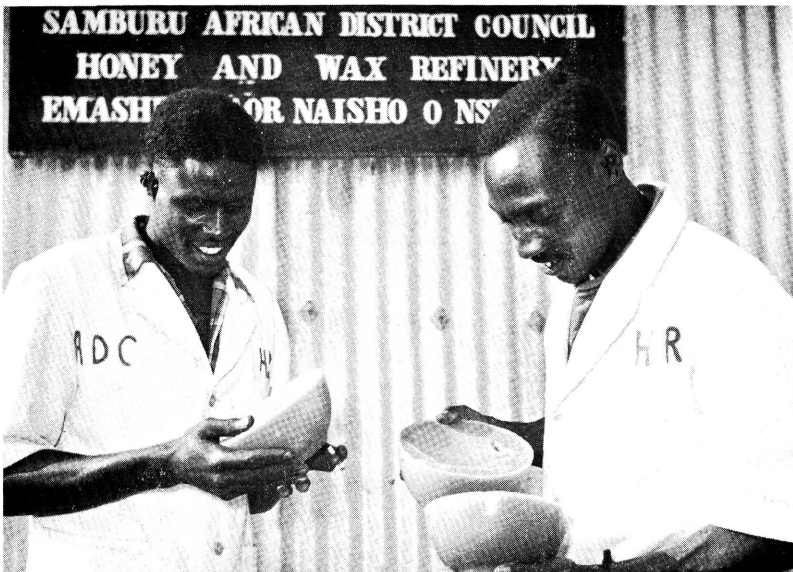
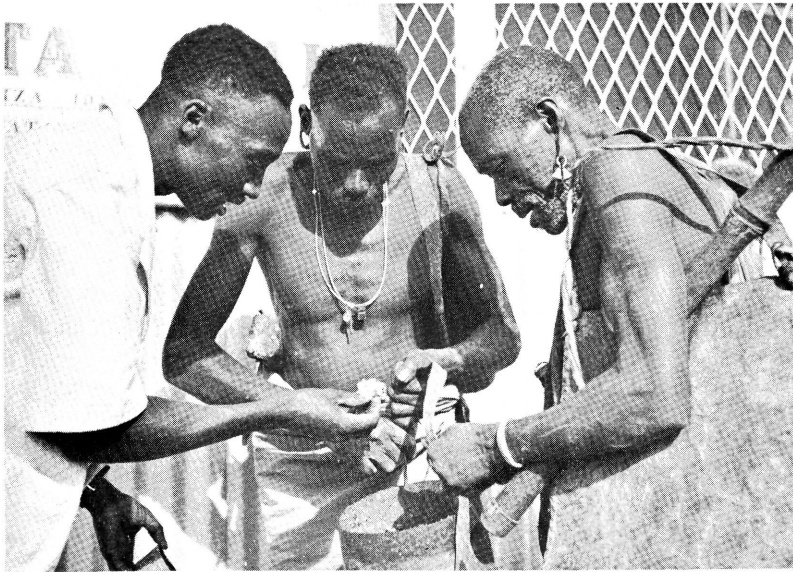
Greek hive in place in tree in Rhodesia

P. Papadopoulos



Wandorobo bee hunters bringing beeswax for sampling (Kenya)

Kenya Information Services



Cakes of refined wax

Kenya Information Services

A. mellifera foraging (and pollinating)

A. E. McR. Pearce





Handling *A.m. adansonii* : these are not always agresive. (The bees are being 'driven' from a primitive box hive to a movable-frame hive)

P. Papadopoulo



Handling *A.m. adansonii* in
a bee house (Tanganyika)

F. G. Smith



Apiary in eucalyptus
plantation, Morocco

E. Crane