

## HONEY PROCESSING AND COLLECTING CENTRES IN EAST AFRICA

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Ontario, Canada)

(Extract from "Honey Processing and Collection Centres - East Africa"  
in "Apiculture in Tropical Climates", IBRA, London, 1976 Pages 135-142)



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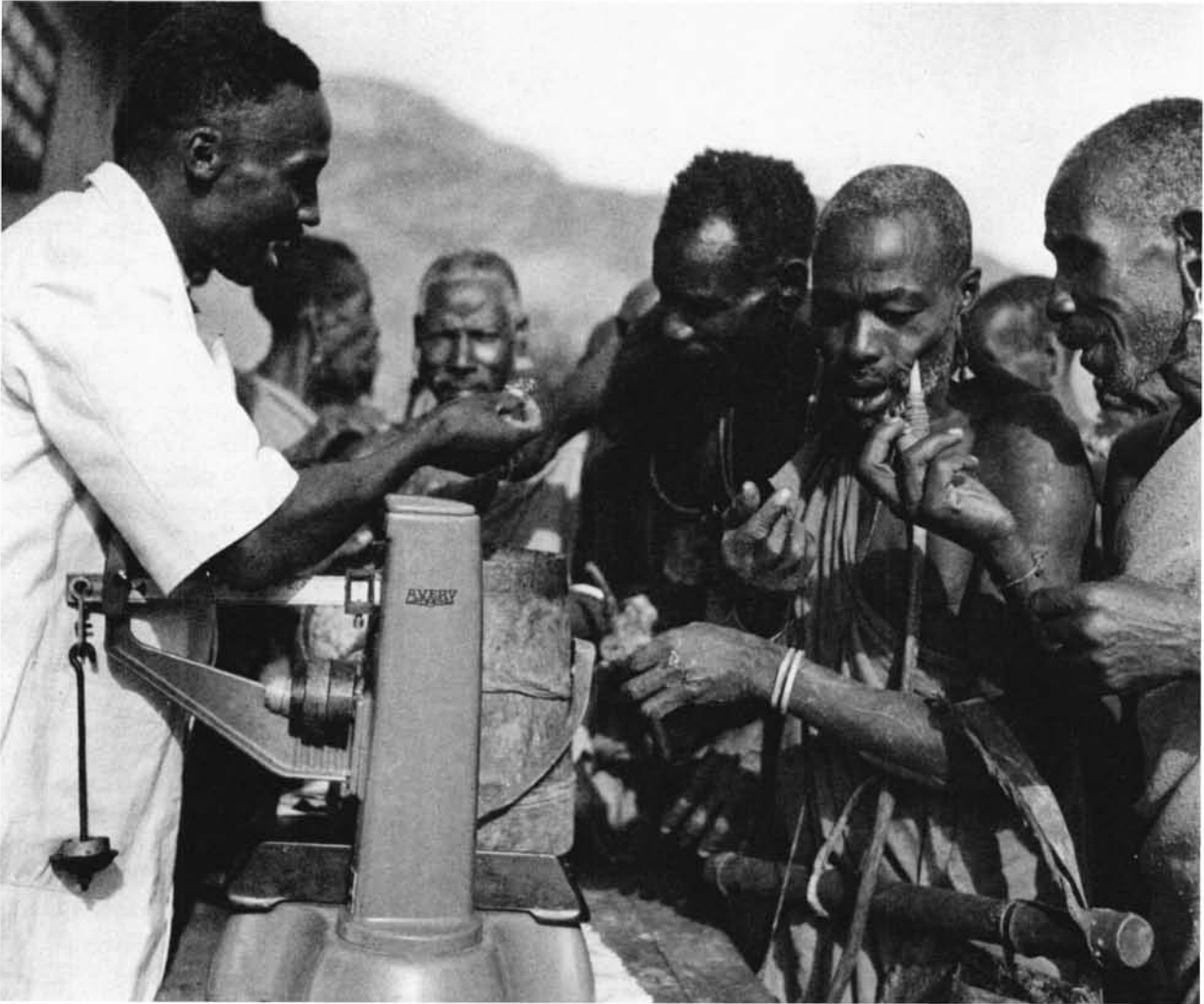
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The bee hives commonly used by traditional beekeepers in Central Africa consist of one chamber, which makes it necessary for the bees to keep the brood, pollen and honey together. Whenever honey is taken out of this type of hive, the honey, wax, pollen, brood and propolis are removed in one mass. The mixture of all these elements together makes it almost impossible to obtain a pure, marketable product. Often, in order to separate the honey from the wax, the whole mixture is heated over an open fire, with consequent burning and smoking. As a result, although East Africa produces thousands of tons of honey every year, the honey is usually badly prepared and unattractive in appearance. Because of this, its place in the local market is taken by imported honeys. If African honey could be properly prepared and distributed, there is no doubt that a ready, local market would be available.

Africans are keen beekeepers, and there are many localities where beekeeping has been firmly established for a very long time. Although the East African honey is of good quality as long as it is in the hive, faulty handling from the time of its removal until it is put on the market is responsible for the inferior quality. The type of hive used, as well as the method of removing the honey, is responsible for this loss. From the information available, the same situation also occurs throughout most of central Africa and in many of the tropical areas of Asia. The major improvement in this whole situation could very well centre around the installation of honey collection centres, provided with well trained extension personnel.

The history of honey collection centres established in East Africa has not been a successful one, except for a few instances. They seem to thrive for a few years and then disappear. The main requisite for success seems to be a strong, central marketing organization, or a government section responsible for the overseeing of apiculture developments within the country. In this way, the organization can be assisted over its rough spots, and necessary supervision of the technical operations provided. The ideal organization would appear to be a central processing and packing plant supported by satellite collection centres in the main areas of production, backed up by a government extension service of well trained personnel.

There are several main requisites for the success of a collection centre. The overall scheme must be in a position to purchase honey over the short period of the season, and sell it



*Honey gatherers bringing their honey to a collection centre in Kenya.*

over a longer period. It is important that the beekeeper be paid in cash for his product when he brings it to the centre. In order to encourage production of a better quality honey, there should be a price differential according to the grade of the honey. This will encourage the beekeeper to improve his production methods, and possibly to change to a different type of hive which is more adaptable to producing quality honey. Associated with the honey collection centre should be a demonstration beeyard operated by one of the government extension personnel, who would also be available to provide some of the technical assistance needed at the collection centre. The collection centre itself is best organized as a co-operative of those who are bringing honey to it. Eventually the central marketing organization, to which the surplus honey from the collection centre would be taken, could also be operated as a co-operative, made up of representatives from the collection centres involved. Organizations of this nature would, in many cases, be in a position to borrow money so that they can carry on cash transactions for the honey and wax supplied. In all collection centres, provision should also be made for handling beeswax, and this should be encouraged as a major beekeeping commodity, particularly in Africa.

A honey collection centre could vary, according to requirements, from a simple bee-tight building where honey is purchased on a graded basis and picked up for taking to the central refinery, to a small building equipped with minor straining facilities and provision for the first refining of the beeswax. No matter for what purpose, the site is important. It should be convenient to the area of production, adjacent to or on an all-weather road; it should have an abundant supply of water, and it should be placed on well drained ground. The plant should be built of brick or stone, and roofed with galvanized iron or similar material. It should be ant-, bee-, and vermin-proof. It should be well ventilated, and it should be provided with rain water tanks, because rain water is the best for refining beeswax.

Since honey is not as perishable as milk, supplies brought to the centre can wait several days before being refined or shipped to the central packing plant. In most cases, the honey collection centre will require a means of separating honey from wax or pressing honey from comb, as well as equipment to refine the beeswax partially, into moulds. If the moisture content of the honey is high, heating equipment will be required, both to strain the honey and to raise its temperature sufficiently to destroy yeasts which may cause fermentation. This is particularly true in areas of high humidity. The minimal equipment would be: a good type of platform scales; collecting tanks (preferably made of stainless steel, but galvanized if stainless steel is not available); some type of a strainer, possibly the smaller type of the cylindrical OAC strainers; possibly a honey press; some means of heating and circulating hot water; hot-water drums for melting wax; and enamelled small basins for moulding the beeswax. If the collection centre is to provide a local market with honey, then some provision should be made for the filling of bottles. A bee-proof, ant-proof locked storage for both wax and honey, prior to shipping or collection should also be provided.

The central packing plant should be located somewhere near the major market for honey; it should be much larger, and with more equipment for the handling of honey. It should have more elaborate heating and cooling facilities, as well as settling and straining equipment. This phase of the programme could be operated in many ways; it could be operated as a co-operative associated with the honey collection centres; it could be operated privately or through one of the mission-oriented organizations. For financing, possibly the best approach is through the central co-operative which would make available certain amounts of money for each collection centre to make their purchases. The central organization could also have associated with it the manufacturing of beekeepers' supplies, so that these could be taken out to the collection centres for sale when the trucks are going out to fetch honey.

No matter how it is organized, the first requisite for the development of beekeeping in an area is the establishment of honey collecting centres where the beekeeper may bring his product and be paid cash for it. The collection centre must be organized in such a way that it can buy the honey on a graded basis, re-process it, and possibly pack it for a local market. In this way, in most cases, the return to the beekeeper can be materially increased, and the whole industry will thrive much better.

#### References

- Crane, E. (ed.) (1975) Honey: a comprehensive survey. London: Heinemann & International Bee Research Association.
- Dadant & Sons (1975) The hive and the honey bee. Hamilton, III.: Dadant & Sons.
- Townsend, G.F. (1975) Preparation of honey for market. Ontario, Canada Ministry of Agriculture and Food Publication No. 544.