

ORGANIC BEEKEEPING IN MEXICO

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Mexico is often described as a cornucopia, a land with high diversity in ecosystems, crops, fauna and flora. These are superb preconditions for organic honey production. Already the pre-hispanic Maya cultures produced honey from the native stingless bee (Meliponini) before the Spanish introduced European honey bee (*Apis mellifera* L). The main beekeeping product in Mexico is honey. Mexico ranks sixth in the world in honey production (57,000 t) and third as an exporter (25,000 t).

Two conditions allow Mexico to possess an enormous potential for organic honey production. First, the beekeeping with Africanized honeybees: despite the problems derived from their defensiveness, these bees have great qualities in terms of natural defences against main diseases, including Varroa, so that beekeeping can be realized almost without the use of medicines, contrary to beekeeping with European bees. Second, the southern states of Mexico have a low industrialization level with small scale agriculture characterized by a rather low use of pesticides. Thus, a big part of the territory is suitable for organic honey production as it fulfils the low exposure levels of contaminants.

Mexico produces approximately 1,150 tons of organic certified honey, that is about 5% of the Mexican honey export. 20 operators are certified organic. Most organic producers are cooperatives with small scale beekeepers. In 2010, more than 448 organic beekeepers (and 291 beekeepers in transition) are managing more than 46,318 organic hives (and 8,629 hives in transition). Organic honey is mainly produced in the states of Yucatan, Campeche, Quintana Roo, Chiapas, Oaxaca, Morelos and Jalisco. Some of the organic beekeeping cooperatives also hold Fair Trade certificates. The first cooperatives were certified in the 1990's in Oaxaca y Guerrero state. Naturland/IMO organized the first organic beekeeping workshop in 2001. Since 2003, El Colegio de la Frontera Sur (ECOSUR) has offered annual courses with diplomas in organic beekeeping. Naturland/ IMO trained the inspection agency Certimex on auditing organic beekeepers in 2004. The First Forum of Organic Apiculture was held in 2005 in Chetumal, followed by a second Forum in 2008 in Mérida. The premium price placed on organic honey makes the transition to organic production very attractive. For small scale beekeepers in cooperatives, an Internal Control System (ICS) has to be developed and full traceability of the product must be ensured. The documentation of the beekeepers' activities, as well as the accounting of the honey and wax, can present some difficulties at the beginning, particularly because many of the indigenous beekeepers are illiterate.

Wax from organic beekeeping is used for wax exchange within the organic projects to guarantee a closed wax cycle. Organic certifiers like Naturland, IMO and Certimex carry out wax analysis in order to ensure the absence of conventional Varroacides in

the wax. If wax is contaminated, it has to be replaced and the cycle of home-grown wax has to be established. Mexico presents the most suitable conditions of biodiversity and nectar sources from extensive natural forests, traditionally not intensively developed, and more than 400,000 ha of certified agriculture land. It has the potential to increase organic honey production considerably, so that many cooperatives of small farmers may benefit by including organic beekeeping in their production.