SUMMARY OF THE ONLINE DISCUSSION

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http://www.fao.org/fsnforum/forum/discussions/beekeeping

Bee products: providing nutrition and generating income – Honey bees, beekeeping and bee products in our daily lives

About this online discussion

This document summarizes the online discussion Bee products: providing nutrition and generating income – Honey bees, beekeeping and bee products in our daily lives, held on FAO's Global Forum on Food Security and Nutrition (FSN Forum) from 12 August to 2 September 2015. The online discussion explored the different usage of bee products and their role for food security and nutrition. It also attempted to look into the future of beekeeping, exploring how to face challenges that are threatening the survival of many bee colonies around the world.

Over the three weeks of discussion, 31 contributions were shared by participants from 18 countries.

The topic introduction and questions proposed as well as all contributions received are available on the discussion page:


Overview

The discussion participants largely agreed that bees and apiculture are important for three main reasons.

First, bees are indispensable for pollination, an essential factor in the continued existence of both economically and environmentally essential plants. Second, bee products constitute an important ingredient for human food and a versatile industrial raw material. Third, apiculture can be an important source for income generation and thus play a central role in the livelihood of those engaging in it.
This notwithstanding, beekeeping and those engaged in this activity face a number of challenges such as lack of access to technology, low-quality output, and conditions affecting the health of the bee population. In addition to natural threats, such as epidemics that cause widespread dying of bees, a series of man-made situations puts additional pressure on populations. Habitat degradation resulting from human population growth that requires the expansion of infrastructure; housing as well as industrial and agricultural installations; and the use of insecticides and insect repellents in agro-industry are threatening bees around the globe.

**Utilization and importance of beekeeping and bee products in different countries**

**Kenya**

In the areas where beekeeping is practiced in Kenya, bee brood (larvae, eggs, honey and wax mixture) is fed as medicine to the elderly and people with disabilities. Honey, though also consumed as a stand-alone product, remains an important input in the traditional breweries. It also forms an important ingredient as a sweetener for traditional herbal medicines. Propolis is chewed to prevent mouth cavity infections.

In Kenya, bees are also being employed as a biological fencing agent in crop-producing areas near wildlife reserves. The bees are a deterrent to elephants and other wild herbivores. [Josephat Mulindo]

**Bangladesh**

In Bangladesh honey is affordable for most people, though very poor segments of the population may not purchase it but rather collect it from natural hives. Honey is used for both its dietary and nutritional benefits. It is eaten in combination with other food or as a stand-alone snack; it is also considered to have medical properties and is taken as a remedy for cold and many other ailments. People of Islamic faith consider honey to be very precious, as there is mention of honey in the Holy Quran and Al-Hadith. [Syed Md.Zainul Abedin Abedin]

**Cameroon**

In Cameroon the availability of honey can be guaranteed throughout the whole year, as the country possesses a multitude of ecosystems and agro-ecological zones – a favourable condition for beekeeping. [Eloundou Tsanga Germain Grégoire]

In the Batchenga community, Centre Region of Cameroon, there are about 28 farmers who practice bee farming promoted by the “Centre pour l’Environnement et le Développement” (CED). In this community, honey serves as a major source of income for the farmers, providing them with about twice their initial yearly income as crop farmers. [Nkwelle Nkede Flabet]
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Togo
Beekeeping is not particularly developed in Togo. Uncontrolled destruction of forests caused bees to become more rare, and consequently the production of honey has declined in quantity and quality. [Dosse Sossouga]

Uganda
Beekeeping has emerged as a very successful agricultural practice that is contributing to food security and enterprise development with the local people in rural areas.

The strong interest in beekeeping is attributed to the benefits of a high return on investment, low labour intensity, and requirement for few inputs and little land. In rural areas there is an almost unlimited source of pollen, and bees aid greatly in the natural cross-pollination of local crops. [Ben Butele-Adramah]

Kyrgyzstan
Beekeeping in Kyrgyzstan is a traditional activity, practiced in foothill areas and mountain pastures. Currently, production is of only about 1.5 thousand tonnes of honey per year, while in its heyday beekeepers produced from 8 to 11 thousand tonnes of honey. This reduction in honey production is due to deterioration of market infrastructure and increased production costs.

In addition to the production of honey, bees play an important role in the pollination of flowering plants. In strategic terms, beekeeping in Kyrgyzstan should strive to reach the previous level of production of honey and to achieve growth of bee product exports. This should be supported by spreading the practice of beekeeping in the regions where it is not a traditional activity. The need to increase crop productivity by improving the pollination of orchards and fields could further support the development of beekeeping. [Matraim Jusupov]

Tunisia
In support of World Bank livelihood/natural resource projects in Tunisia, FAO has developed analytical frameworks for undertaking an analysis of the profitability of various income-generating activities (in French). One of the modules is beekeeping. http://www.fao.org/fsnforum/sites/default/files/resources/Apiiculture%20Module%20August%202015.xls [Nancy Morgan]

What can we do to create sustainable conditions for agriculture and apiculture to coexist and to benefit from each other?

Need for awareness raising, training and providing access to credit
Difficulties in efficiently marketing bee products can cause farmers to withdraw from beekeeping. To stop this from happening, farmers need to be trained in proper processing techniques, value addition, and marketing through partnerships or convergence with civil society and private companies. [Manoj Kumar Behera]

The government needs to build capacities and provide access to funding to allow beekeepers to professionalize and to employ machinery in order to produce high-quality honey. [Eloundou Tsanga Germain Grégoire]
Motivational work coupled with training, arrangement of credit for purchasing required materials, and maintenance of beehives and colonies may help immensely. [Syed Md.Zainul Abedin Abedin]

**Beekeeping as environmental service and sustainable agricultural practice**

It is important that all development stakeholders be made aware of the risks associated with a reduction in the number of pollinator bees. This can be achieved through training and the extension of legal protection over pollinators. At the same time a professionalization of the beekeeping sector alongside farming and livestock needs to be achieved to strengthen the coexistence of these different agricultural practices. [Eloundou Tsanga Gregory Germain]

Commercial flower farming can coexist efficiently with beekeeping and help improve honey production in countries such as Bangladesh. [Muhammad Ariful Haque]

The growing application of climate-smart agriculture concepts across the globe can increase the importance of the practice of beekeeping. There are growing opportunities to integrate beekeeping in Integrated Farming Models or agroforestry practices, which are more sustainable. [Manoj Kumar Behera]

**How to address current threats to bees**

In order to combat habitat degradation, it would be advisable to implement a strict regulation of building and construction projects and a legal requirement that a certain percentage of the affected area should retain its native flora or the equivalent.

It would also be beneficial to actively encourage the reforestation of the deforested areas with local flora, and to educate people to use “live fences” that flower by growing flowering plants in their gardens, especially those that blossom at different times.

Furthermore, it is necessary to continue research on the toxic properties of agrochemicals and to incentivize the utilization of techniques that are not harmful to bees. [Lal Manavado]

**Examples of innovative beekeeping practices**

**The Flow Hive**

A new technology for beehive management has been developed in Australia that is much less invasive for the extraction of honey. Further information on the “Flow Hive” can be found at: https://www.indiegogo.com/projects/flow-hive-honey-on-tap-directly-from-your-beehive [Gary Burnsike]

**The Hybrid Beehive**

Facing challenges acquiring Langstroth beehives, a beekeeper in Kenya developed his own hives and devised ways to maximize income generation by transforming some of the harvested honey into cough syrups and candles.

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Resources

Documents and articles


Web sites:

- TECA beekeeping exchange group http://teca.fao.org/group/beekeeping-exchange-group


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