

https://www.capitalpress.com/ag_sectors/orchards_nuts_vines/turkey-second-largest-honey-producer-and-potential-bee-savior/article_bb1b9544-0fe5-11ea-aff6-17612342f473.html

Turkey second-largest honey producer — and potential bee savior

By PARIS ACHEN For the Capital Press

Jan 7, 2020



Cavit Ozdemir with honeybee hives in Bulancak, Turkey.

Paris Achen/For the Capital Press

BULANCAK, TURKEY — Cavit Ozdemir and his wife, Rukiye, have colonies of some 300,000 honeybees near their home in a village near the Black Sea coast.

Their 75 hives, perched on the top of a hill overlooking verdant wooded valleys, yield about 1,100 to 2,200 pounds of honey each year, mostly a chestnut variety. The couple sells the amber-hued honey to local residents at the Sunday market, a European grocery store chain and the local honey cooperative.

Cavit Ozdemir has been beekeeping for more than 30 years.

“It is a tradition that is passed from father to sons,” he said through a translator. “It’s been in my family for 60 years, maybe more.”

That’s a relatively new operation by this region’s standards. Apiculture has been ongoing in Anatolia — present-day Turkey — since the time of the Hittites about 1300 BC.

Now, Turkey ranks second in the world after China in honey production with an output of about 100,000 tons each year, according to the Turkish Ministry of Agriculture and Forestry. That is an increase from about 70,000 tons a decade ago, the ministry states. The country produces a smorgasbord of varieties, including acacia, chestnut, citrus, lavender, pine, thyme, wildflower — and the hallucinogenic “mad honey” made from rhododendron nectar.

Turkish beekeepers in recent years have also started producing royal jelly, pollen, propolis and bee venom, popular for nutritional and medicinal purposes.

Turkey’s bounty of honey, however, has not translated into large-scale exports, a fact lamented by the agricultural minister last April. The country exports between 6,000 and 7,000 tons each year, a single-digit fraction of the nation's total output.

Germany and the U.S. import the most Turkish honey. In the first 10 months of this year, Turkey exported 1,611 tons of honey worth \$5.7 million to Germany and 713.5 tons worth \$3.5 million to the U.S., said Saffet Kalyoncu, chairman of the Eastern Black Sea Exporters Association.

Of the 48 countries to which it exports honey, Saudi Arabia, Kuwait and Austria rank in the top five after Germany and the U.S.

The low percentage of exports could be, in part, due to high demand for honey in Turkey, where many breakfast dishes and desserts contain copious amounts of the natural sweetener, but the Turkish agriculture minister pointed to other causes.

“We need to focus on marketing (abroad) in the period ahead, because as the second largest producer in the world, we are still not where we want to be,” Agriculture Minister Bekir Pakdemirli said during the speech last April in Ordu, Turkey. “We should have a better share in the world.”

Pay to pollinate

Turkey has some 8 million honeybee colonies. The bees have three different phytogeography-rich areas in Turkey, replete with about 10,000 plant species, 3,500 of which are endemic to the country. About 500 of the species provide large amounts of nectar and pollen for bees.

The volume of bees means that most farmers don’t need to buy pollination services.

“Here (in Turkey), there is no need for (paid) pollination,” said Akin Ciftci, chairman of the Ordu Beekeepers Union in northeast Turkey.

A small market for pollination services exists in the country, but it is limited to only a few crops such as cherries, almonds and sunflowers, according to the Beekeeping Development Application and Research Center in Bursa, Turkey.

The more common scenario is that traditional traveling beekeepers have to pay landowners to host their bee hives, said Ciftci, who started his career as a traveling beekeeper and still maintains 500 hives.

While U.S. farmers typically pay beekeepers to bring a bee colony to pollinate their crops, in Turkey, beekeepers pay around \$700 per season to keep their hives in a village or on a piece of property, he said.

Beekeepers typically get about \$1.36 per pound of honey sold wholesale, Ciftci said. The going price for honey at grocery stores and markets is about \$4.75 per pound and up, depending on the type, said Cavit Ozdemir, who sells some of his honey to the local Sunday outdoor market

in Bulancak.

Colony collapse

Like other countries around the world, Turkey has experienced colony collapse, but the phenomenon has had less of an impact on its honey production because of the volume and diversity of its bee population.

By late 2018, colony collapse disorder had wiped out about 150,000 of the country's nearly 8 million honeybee colonies, according to a special report by daily Hurriyet newspaper. The disorder impairs bees' ability to navigate and return to their hives. The exact cause is unknown, but it has been associated with the use of some insecticides.

Turkey's Agriculture and Forestry Ministry in December 2018 responded to the honeybee losses by banning the use of three nicotine-based insecticides (neonicotinoids) —clothianidin, thiamethoxam and imidacloprid — the latter of which is most commonly used around the world.

The ministry's action followed a ban on the same chemicals in the European Union earlier that year.

Colony collapse disorder appears to affect only the European honeybee, *Apis mellifera*.

Turkey has at least five subspecies of the European honeybee and is a “gene reservoir” for the *Apis mellifera*, according to a July 2016 report by the Beekeeping Development Application and Research Center.

The country's genetic diversity could help solve many of the problems that cause colony collapse, but that potential has been stymied by a lack of interest or resources in bee breeding, asserted the study's authors, Ibrahim Cakmak of Uludag University in Bursa and Selvinar Sevenscakmak of Ankara University.

“Genetic variation may provide natural protection against predators and pathogens thought to be a major factor in colony collapse,” the authors wrote. “The great diversity of honeybees has not been used efficiently for breeding purposes in Turkey so far but some studies such as

resistance to parasites and diseases are on the way to explore these traits.”

“Preserving endemic honeybee subspecies and ecotypes are essential for future beekeeping industry,” they added, “not only for Turkey but also for the world.”

Gurhan Eris translated the interviews for this story.