Oregon honeybee losses continue at economically unsustainable rate, survey finds

July 1 2014, by Daniel Robison

Oregon State University entomologist Ramesh Sagili blows smoke in a hive to calm bees. Credit: Lynn Ketchum

More than one in five commercial honeybee hives in Oregon did not survive last winter, continuing a financially challenging trend for professional beekeepers.

Between Oct. 1 and March 31, Oregon beekeepers reported a 21.1

percent loss in colonies of the crucial crop pollinators, according to a survey by the Bee Informed Partnership, a countrywide collaboration among research labs focusing on honeybee declines. The latest figures are a slight improvement over the state's average annual loss of 22 percent over the past six years.

Nationally, commercial beekeepers reported a 23.2 percent decline last winter. An average of about 30 percent of colonies nationwide has died each winter over the past decade, the partnership reported.

"These are challenging times for beekeeping and we have reason to be alarmed," said Ramesh Sagili, an entomologist with Oregon State University's College of Agricultural Sciences who has been conducting honeybee colony loss surveys for the past five years. "While 10-15 percent loss of colonies is considered acceptable, current rates of decline could drive professional beekeepers out of business."

To replace lost colonies, beekeepers must split healthy hives of 50,000 bees or more – a process that takes months and adds substantial costs for labor, new queens and equipment. However, as these lost colonies are replaced, there is not a drop in the total number of hives each year, according to Sagili.

Oregon is home to 62,000 managed honeybee colonies, with the United States total at 2.6 million, according to the Bee Informed Partnership.

The U.S. Department of Agriculture credits honeybees with pollinating more than $15 billion worth of crops in the U.S., including pears, blueberries, cherries, apples, and vegetable seeds such as broccoli, mustard, carrots and onions. Many nut trees also rely on bees for pollination, including nearly 900,000 acres of almond trees in California, according to the USDA.

Bee colonies are in significant decline for a variety of reasons, according to Sagili. He said these include Varroa mites, which transmit viral diseases to bees; poor nutrition from a restricted diet resulting from large-scale monocropping; and exposure to pesticides when bees are foraging for nectar and pollen.

"We wish there was an easy answer," said Sagili, who is also a honeybee expert with the OSU Extension Service. "Each of these factors add stress to the bees and compromise their immune systems."

Provided by Oregon State University