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Local beekeeper helps bees by building winter warehouses

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TWIN FALLS — There are backyard honeybee hobbyists and there are commercial beekeepers. Then there are honeybee enthusiasts whose fascination with bees goes way beyond the call of duty.

Israel Bravo is one of those bee enthusiasts who aren't satisfied with simply keeping bees and gathering honey. His obsession with the honeybee could keep the pollinator off the endangered species list.

A mysterious syndrome — called colony collapse disorder — continues to make headlines as it takes its toll on bee populations. Scientists are reluctant to name a specific cause of the syndrome; most attribute the sudden collapse of bee colonies to numerous natural and environmental causes.

“I want to help the bees,” Bravo said.

The 43-year-old beekeeper who’s spent his entire adult life learning about bees and is now teamed with Twin Falls potato storage manufacturer Agri-Stor Co. to build climate-controlled “smart bee storage” warehouses to provide winter housing for honeybees. Temperature, humidity and carbon dioxide levels in the buildings are constantly monitored and recorded.

It’s the wave of the future, Bravo says.

Smart technology

Bravo knew what he wanted to create for honeybees and was willing to go to the ends of the earth to find it.

“I had no idea I would find it here in my own backyard,” he said.

What he wanted was a beehouse that could be controlled from a cellphone. What he found were high-tech “smart” potato warehouses made by Agri-Stor.

Bravo had stored bees in potato cellars before, but “we couldn’t control what happened inside,” he said. “Every year was a roll of the dice.”

His idea for smart beehouses, however, would give beekeepers the ability to check their colonies at any time of the day from anywhere there is cell service. Sensors in the warehouses notify beekeepers when as soon as a problem is detected.

“I call it ‘peace of mind in your pocket,’” Bravo said.

Not native

The role of the honeybee has grown far beyond what nature intended in the United States. In fact, honeybees aren't even native. The bees were brought here from England to pollinate crops in the 17th century.

By the 1940s, the honeybee population in the U.S. peaked at about 5 million colonies. By 2015, the population had dwindled to 2.6 million colonies, down 8 percent from the previous year.

The bulk of honeybee colonies in the U.S. are managed by beekeepers who store the bees when they aren't working. Bees don't hibernate, but keeping them inactive during the winter months when food is nonexistent is key to their survival. An active bee will go through its energy reserves and die before spring.

During the winter, bees are routinely stored in cellars and warehouses built for something else. Such cellars have always made Bravo nervous because of the chemicals that are used in them. It was time honeybees got their own custom-built winter homes, he told himself.

He contacted Don Thomas, a longtime Texas beekeeper, and Eric Evans, owner of Agri-Store, to pitch his idea.

In the end, Bravo went to work for Agri-Stor and Thomas Honey Farms contracted Agri-Stor to build a $1.6 million smart bee storage warehouse outside of Filer. The warehouse has a capacity of 25,000 colonies or 750 million bees.

Megahit

“It’s a prototype,” he said. A very successful prototype.

Before colony collapse disorder, beekeepers could expect to lose about 14 percent of their honeybees to normal seasonal die-off, according to agricultural economists. The “new normal” loss is about 28 percent.

The 17,300 colonies of honeybees that spent the winter in Thomas’ Filer warehouse are exiting in great shape, Bravo said. The winter mortality rate was an unheard of 6 or 7 percent.

Itinerant pollination services

The itinerant pollination industry has become big business. Honeybees support the cultivation of up to 130 crops and directly or indirectly accounts for a third of the U.S. diet, according to the U.S. Department of Agriculture. Gross revenue from pollination services in 2012 totaled $656 million. Almonds and sunflowers provide the largest share of those revenues.

Interest in Bravo’s warehouses was high last month at the North American Beekeeping Conference and Tradeshow in Galveston, Texas, and he came home bouyed by the attention his idea received. Thomas Honey Farms has already ordered a second warehouse be built next to the first.

The bees are now headed to pollinate the California almond crop, Ryan Thomas, who runs Thomas Honey Farms, said Tuesday. The California’s almond bloom is said to be the largest managed pollination event anywhere in the world.

From there, he said, the bees will “chase canola fields.”

A bee's life

A honey bee must visit 1,500 flowers to gather a load of pollen.

A honey bee must visit 2 million flowers to make one pound of honey.

A hive of honey bees fly 55,000 miles to collect enough pollen to make a pound of honey.

A honey bee flies 15 miles per hour.

A honey bee lives about 42-45 days in peak season, longer during the winter. A queen bee can live for years.

One colony contains some 30,000 bees.