



OARDC studies bee colonies to learn more about factors affecting bee health. Healthy bees are crucial for both agricultural production and the environment.



ESSENTIALS

The Ohio Agricultural Research and Development Center and Ohio State University Extension work together with the beekeeping industry and others to deliver the following programs, which promote healthy bees and environments that boost bee numbers.

- A monthly webinar series is attended by some 120 beekeepers from Ohio, other states and several countries. It focuses on ways to monitor for health issues and combat pests that attack bees. The sessions are archived online and reach many more beekeepers.
- Monthly face-to-face educational programs with beekeeper associations throughout Ohio deal with topics such as integrated pest management and creating forage habitats for bees.
- A statewide network of 28 research and demonstration gardens were planted in 2014 at schools, parks, arboreta and OSU Extension offices. The gardens evaluate which combinations of plants attract bees most, so that recommendations can be made to help enhance their habitats.

Healthy bees, healthy agriculture: Striking a balance



“Ohio State University research is required to provide information to the Ohio agriculture community, which will allow collaboration between beekeepers and farmers to help each other keep honeybees healthy and safe, and provide the pollination needed to keep crop production sustainable and profitable.” — Dwight Wells, regional director, Ohio State Beekeepers Association

Bees are crucial to agriculture and food security. They pollinate about one-third of the crops we eat, valued at more than \$14 billion annually in the U.S.

However, this valuable resource is at risk. During the 2013–2014 winter alone, Ohio beekeepers lost 50–80 percent of their honeybees. Bees are dying in large numbers due to many reasons, including diseases, insect pests, loss of habitat and agricultural chemicals.

“Most corn seeds planted today are coated with insecticides, and when they are chipped off in the planter, the dust lands on nearby flowers,” said entomologist Reed Johnson. “Bees then carry the tainted pollen back to their hives, where young members of the colony become exposed to it.”

Johnson is studying the unintended consequences of these insecticides as well as strategies to protect bees. For example, he has tested a lubricant that is applied to the seed to reduce dust, which shows promise in field trials.

More: u.osu.edu/beelab

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OARDC: A Leader in Agbioscience

ag·bi·o·sci·ence (ăg'bt'ō-sī'ens) *n.* the integration of scientific disciplines to address critical needs of food security, safety and health; environmental sustainability; and biobased energy, fuel and products



**Food Security, Production,
and Human Health**



**Environmental Quality
and Sustainability**



**Advanced Bioenergy
and Biobased Products**

Ohio Agricultural Research and Development Center

As the research arm of The Ohio State University's College of Food, Agricultural, and Environmental Sciences (CFAES), the Ohio Agricultural Research and Development Center (OARDC) employs nearly 650 scientists and staff members throughout the state.

Ohio State's Wooster campus is the largest agbioscience research facility in the U.S. OARDC scientists work closely with researchers in Ohio State's Colleges of Education and Human Ecology, Medicine, Public Health, Veterinary Medicine, Biological Sciences and Engineering.

At any given time, OARDC researchers are engaged in nearly 400 research projects. Primary focus is in three signature areas:

- Advanced Bioenergy and Biobased Products
- Environmental Quality and Sustainability
- Food Security, Production, and Human Health

The Ohio General Assembly established OARDC as the Ohio Agricultural Experiment Station in 1882. It is supported by a line-item appropriation from the Ohio General Assembly, competitive grants, gifts, contracts, federal grants and other sources. OARDC uses these funds to provide direct research support and economic development for Ohio's annual \$100+ billion agbioscience industry. OARDC is not funded by student tuition or any other general funds of The Ohio State University.

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