



SPOTLIGHT ON:

Bee Health and Pollination

Every almond you eat exists because a honey bee pollinated an almond blossom. And every honey bee who visits an almond orchard gets its first natural food source of the year there, building up reserves of workers and stored food to support a healthy start to their pollination season¹.

Because of honey bees' essential role in almond production, Almond Board of California has invested more into honey bee health research than any other crop group², and farmers have adopted voluntary measures to protect bees in the orchard and beyond.

HELPING HIVES

The California Almond community is taking action in the orchard to support honey bee health during bloom and beyond.

PROTECTING POLLINATORS

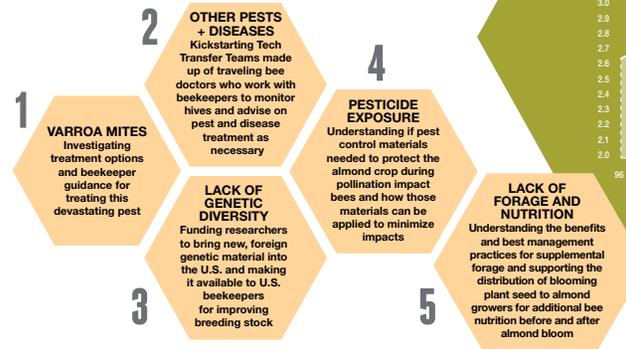
To help almond farmers achieve this goal, Almond Board of California, using research insights and in partnership with universities, government agencies, nonprofits and others, developed the Honey Bee Best Management Practices (BMPs) for California Almonds. The Bee BMPs provide key recommendations to everyone involved in the pollination process to make the orchard a safe and welcoming place for honey bees while balancing the need to protect the developing crop.

GOING THE EXTRA MILE

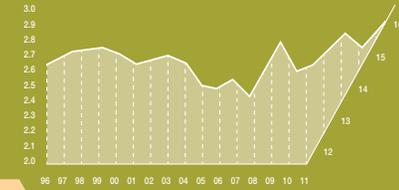
Working with honey bee research organization Project Apis m. and others, Almond Board encourages farmers to plant bee-friendly forage near almond orchards as additional food sources for honey bees before and after almond bloom. Beyond providing additional nutrition for honey bees and other pollinators, these plantings may help farmers improve soil health, water infiltration and more.

THE BUZZ ON BEES

The decline in bee health has been linked to a variety of complex factors, including those influenced by beekeeping and crop production activities. This chart outlines those factors and how the California Almond community is helping address each area.



THE NUMBER OF U.S. HONEY BEE HIVES IS AT A 20-YEAR HIGH
However, beekeepers still experience significant in-season losses and must work hard to maintain healthy apiaries.



35%

of the world's food crops rely on pollinators to some degree



Almond Board has supported **113 RESEARCH PROJECTS** across all 5 MAJOR FACTORS impacting honey bees



Since releasing Bee BMPs in 2014, California Almond farmers have

WIDELY ADOPTED VOLUNTARY PRACTICES TO PROTECT HONEY BEES⁴



Just like almonds are a nutritious snack for us, **ALMOND POLLEN** is very nutritious for honey bees, providing all 10 of the essential amino acids their diets require. Because of this, bee hives routinely leave stronger after visiting during almond bloom.⁵

94%

of farms coordinate with their beekeepers about what pest control materials may need to be used during bloom and how the beekeepers will be notified in advance

93%

of farms provide clean water for bees to drink and cool themselves with while pollinating

1. USDA-ERS. Land Use, Land Cover and Pollinator Health: A Review and Trend Analysis. July 2017. 2. Gene Brandi. Vice President, American Beekeeping Federation. 3. USDA-NASS. Honey Production Report. 1996-2016. 4. California Almond Sustainability Program. Aug. 2017. 5. Ramesh Sagili. Department of Horticulture, Oregon State University.



"I look at the relationship between beekeepers and almond farmers as symbiotic in many ways. Being a hobbyist beekeeper as well as an almond farmer enables me to see issues from both sides. Over the years, we have changed our farming practices and planted forage to promote bee health and nutrition because, at the end of the day, stronger hives can produce bigger crops."

— Christine Gemperle, second-generation almond farmer
Ceres, California

FARM PROFILE: almonds, beekeeping
ACRES OF ALMONDS: 130