



PROTECTING HONEY
BEE HEALTH AND
EXPANDING ON-FARM
POLLINATOR HABITAT



BEE HEALTH



I



II



III



IV

WORK IN PROGRESS:

THESE PROJECTS AND PRACTICES ILLUSTRATE THE CALIFORNIA ALMOND COMMUNITY'S COMMITMENT TO IMPROVING POLLINATOR HEALTH.

I. BEE+ SCHOLARSHIP:

New in 2020, ABC offered 100 farmer scholarships to offset the cost of blooming cover crop seeds through Project Apis m.'s Seeds for Bees program. It also covered the cost of Bee Friendly Farming certification through the Pollinator Partnership, creating momentum for future years.

II. FLORAL DIVERSITY:

To add diversity of pollen and nectar available on farms, some almond farmers are planting blooming cover crops and hedgerows near or within almond orchards. These plants also support honey bee health and provide food sources for native pollinators.

III. BEE RESEARCH COALITION:

ABC brings together government and nonprofit organizations that support bee health research on a regular basis. The goal? Coordinating our collective efforts to find solutions to persistent hive health challenges and increasing access to quality foraging opportunities for honey bees.

IV. IN-FIELD BEEKEEPER SUPPORT:

Through ABC, almond farmers have been a longstanding supporter of the Bee Informed Partnership's Tech Transfer Teams. These highly trained field agents work with U.S. beekeepers to monitor hives and advise on pest and disease best practices, supporting bee health year-round. ■

BEE-FRIENDLY ORCHARDS

Honey bees and almonds are a partnership designed by nature. When almond trees bloom, honey bees get their first nutritious food source¹ of the year as they pollinate our orchards, consistently leaving stronger than they arrive.² While bees are only with us for two months of the year, we work to support their health for all twelve.

We've been leading bee health research efforts since 1995 so farmers can confidently provide a safe habitat for bees before they move on to pollinate other crops. In collaboration with partners beyond our industry, our Honey Bee Best Management Practices serve as a guide to all of agriculture for protecting pollinator health on-farm. And by planting blooming cover crops and hedgerows, farmers are working to add supplemental nutrition and habitat for all pollinators.

What's more, we're working with others to solve the challenges bees face. While those are complex – varroa mites, other pests and diseases, lack of floral resources, limited genetic diversity and pesticide exposure – we know by partnering together, we can find real solutions. ■

THE NUMBER OF HONEY BEES IN THE U.S. REMAINS STEADY:

However, beekeepers experience significant in-season losses and must work hard to keep hives healthy.



BLOOMING COVER CROPS MEAN HEALTHIER BEES, SOILS AND FARMS.

Since 2013, almond farmers have planted **41.2K ACRES** of bee pastures in partnership with bee nonprofit Project Apis m.⁴



MEET CHRISTINE GEMPERLE

ALMOND FARMER, TURLOCK, CA

"As an almond farmer and a hobbyist beekeeper I am acutely aware of how these two biosystems are connected. I am passionate about planting forage to strengthen bee colonies, providing habitat for beneficial insects and native pollinators and building soil health, which increases water holding capacity. It's just one of the hundreds of climate-smart ag practices that can contribute to the solution for climate change – and help bees along the way."



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1. Ramesh Sagili. Department of Horticulture, Oregon State University. 2. Ellen Topitzhofer, et al. Assessment of Pollen Diversity Available to Honey Bees in Major Cropping Systems During Pollination in the Western United States. Journal of Economic Entomology. 2019. 3. USDA-NASS. Honey Production Report. 2000–2019. 4. Billy Synk. Director of Pollination Services. Project Apis m. November 2020. Represents total plantings from 2013-present.