



DATE SUBMITTED: April 19, 2021

PROJECT TITLE: The California Master Beekeeper Program
PROGRESS REPORT FOR YEAR 3 OF 4

STRATEGIC INITIATIVE(S): Honey bee education, outreach and stewardship
INVESTIGATOR Elina L. Niño, Ph.D.

The California Master Beekeeping Program is a continuous train the trainer effort. Participants have the opportunity to receive an outstanding apiculture education and are current on the latest research findings which are constantly evolving. CAMBP participants help to increase UC ANR's extension reach in communities throughout the state.

Objectives:

- To create and establish a comprehensive, science-based, and state-wide apiculture curriculum to help minimize potentially disastrous consequences, such as increased pest and pathogen transfer or spread of Africanized bees which are considered a public-health risk, due to lack of understanding of proper honey bee husbandry.
- To develop a continuous train-the-trainer education effort for California beekeepers (small scale and backyard beekeepers), and support and foster honey bee health to ensure the pollination of specialty crops and food security through education and outreach efforts at the local community level.
- To expand the California Master Beekeeper Program curriculum for the intermediate and advanced levels, create partnerships with advisers in UCCE offices throughout the state, create comprehensive web-based resources such as a library of on-line materials including an on-line classroom, and support the expansion of our educational apiary.

Deliverables:

- The California Master Beekeeper Program provides California-centric, contemporary, research-based training in apiculture to backyard and small-scale beekeepers.
 - Train the trainer: Since 2016 the program has trained 266 apprentices, journey level and master beekeepers who have performed Beneficial Education Experiences (BEEs) as 25775 service hours in science-based education, outreach and support in beekeeping and environmental stewardship service serving 103404 people at a value to the state worth \$655,458.25 (\$25.43/hr is value placed on volunteers in the county of San Diego) in the following areas:
 - Presenting a bee-related lecture or workshop to non-beekeeping group (youth or adult).
 - Holding office in a local beekeeping association.
 - Assisting members of youth organizations (4-H, Scouts, FFA), etc. with a bee-related project.
 - Successfully mentoring a new beekeeper through at least one season.
 - Giving a public demonstration on beekeeping topic at fair, festival or similar public event (working from a stage, booth or table)
 - Swarm removal with emphasis to underserved communities.
 - Writing a science-based honey bee or beekeeping article for a newsletter or a trade journal.
 - Social media support/online mentoring of new beekeepers and answering hotline questions (where available).
 - Ride-a-longs with county apiarists (where available).

- [CAMBP Children's program](#): A curriculum offered at no cost in collaboration with Farms of Amador, Amador County Master Gardeners, Haagen Dazs Honey Bee Haven. Due to COVID restrictions we were able to offer one in-person children's program at the Bird and Bug Extravaganza in Roseville on Feb 1. The balance of children's programming was performed over Zoom by CAMBP volunteers.
- CAMBP High School Program Curriculum: In person suspended in 2020 but online program offered by [CAMBP member](#) at no cost to Foresthill High School – Placer County 20 students and 6 adults from their Farm to Fork Sustainable Agriculture class
- [Outreach](#) (CAMBP featured at 2:40 in video) was "in person" at the Bird and Bug Bonanza in Roseville, CA which attracted over 2500 people. The remainder of 2020 was online at county, state and federal beekeeping meetings and conventions. Talking points focus on train the trainer, scientific based beekeeping for beekeeping ambassadors and environmental stewards to develop a supportive and interactive beekeeping network of mentorship across the state (Delta, Grass Valley, WAS, CSBA, AHPA, ARBC, Los Angeles County Beekeeper's Association, Orange County Beekeepers Association)
- [Webinars](#) – 9 webinars on various topics were presented to our membership in 2020 and are available for view behind the member login portal ([here](#)). Login information highlighted below.
- ["Online Field Day"](#): Pest and Diseases online interactive 3-hour program. CAMBP members participate in active learning and presenting.
- [CAMBP Policy and Procedures Manual](#) A living document that reflects the growth and changing nature of the CAMBP.
- [CAMBP website](#) – updates and additions
 - Guidelines for [Apprentice](#), [Journey](#) and [Master](#) developed Member Login
 - Apprentice level 2020 graduated 45 individuals.
 - Journey Level 2020 graduated 14 individuals.
 - [First Master Level beekeeper](#) certified in August 2020.
 - Master Level tracks expanded to include commercial beekeeping, scientific research, native bees and pollinator gardens, Education and Outreach, Policy for Honey Bees and Native Pollinators.
- Social media metrics: Mailchimp "CAMBP Connection" published 13 [Newsletters](#) in 2020. Our mailing list has reached over 1,900 members with 49% open rate. Facebook Private group is 122 members strong, and our Instagram account has 683 followers. The CAMBP also has a [YouTube Channel](#).

Outcomes:

- The CAMBP expanded to include 2 extension hubs at the South Coast Research and Extension Center in Irvine and at UCLA campus. In collaboration with the program manager, volunteers at these extension hubs support our education and outreach efforts. As science-based beekeeping education and outreach is local, it is vital to have

teaching apiaries in Southern and Northern California. The CAMBP now offers [classes \(online\)](#) and can perform practical exams at these locations when COVID regulations allow. The CAMBP plans to open up another extension hub in Humboldt in 2021.

- Despite COVID restrictions in 2020 our membership increased by 60 beekeepers. Our members reported 1265 hours of service online and served 6786 people. We have positively impacted community safety through better beekeeping husbandry and volunteer community outreach from our members. (Beneficial Educational Experiences, or *BEEs* are a requirement of the program. Members are accountable to upload their service records through their new member portal on our website).
- Throughout 2020 the need for an online Apprentice Level Certification in the CAMBP was addressed and will now be available by July 2021 to offer customers a more flexible way to learn about science-based beekeeping and honey bee health. It is a self-paced program with an online exam. Practical exams outlining the skills of our candidates are submitted via YouTube and graded by CAMBP admin.
- The CAMBP responded to the need for equity, diversity and inclusion by adding an additional level to our programming in 2020: [The Apprentice Assistant](#). This level is more affordable (has a small scholarship fund) and provides an overview of the perfect science-based introduction to everything necessary to beekeeping and honey bee health. If customers cannot keep bees at their location because they live in an apartment, or in a county or city where beekeeping is not permitted, our CAMBP mentors help aspiring beekeepers learn if 'in-hive' experiences are really for them. Here is the [curriculum](#).
- The CAMBP updated its [website](#) and activated "[Ask a Beekeeper](#)" map. The public benefits from being able to access trained and accountable beekeepers in their area for swarm removal, beekeeping assistance, outreach or education.
- The CAMBP participated in the online conference by LEAD For Pollinators "[Women in Beekeeping and Agriculture](#)" and gave this presentation on [What is the CAMBP?](#)
- The CAMBP's Advisory Board met in [July](#) and again in [December](#) in 2020 to show support and encouraged the CAMBP to continue to grow and expand in 2020 despite COVID.
- CAMBP management was able to pivot and provide a [full complement of classes](#) online and reviewed all practical exam video submissions.
- The Pollinator Education Program, the CAMBP's signature program for children ages 5-12 in 2020 was delivered remotely by [CAMBP volunteers](#) from our Journey Level.
- CAMBP volunteers developed a Safety in the Apiary [presentation](#), [manual](#) and [quiz](#). All members must now complete annually.