

DATE SUBMITTED: February 25, 2019 PROJECT TITLE: The California Master Beekeeper Program PROGRESS REPORT FOR YEAR 1 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 (we currently have collaborators in Fresno and San Diego), 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 126 apprentices who have given over 4500 service hours in beekeeping and environmental stewardship service 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.
 - <u>CAMBP Children's program</u>: A curriculum offered at no cost in collaboration with Farms of Amador, Amador County Master Gardeners, Haagen Dazs Honey Bee Haven
 - 67 2nd and 3rd graders from Plymouth and Sutter Creek Elementary school



- 70 3rd and 4th graders from Pioneer and Pine Grove Elementary School
- CAMBP High School Program Curriculum: Offered at no cost to Foresthill High School – Placer County 22 students and 8 adults from their Farm to Fork Sustainable Agriculture class
- <u>Outreach</u> 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)
- <u>Webinars</u> 4 online modules developed for our journey level in partnership with beekeeping experts across the country.
- Field Days: Pest and Diseases in the Hive and Technology in the Hive interactive hands on full day programs. CAMBP members participate in active learning and presenting.
- San Diego CAMB Program Pilot apprentice program in association with UCCE San Diego and the County of San Diego – in progress to be completed June 9, 2019
- <u>CAMBP Policy and Procedures Manual</u> in progress living document that reflects the growth and changing nature of the CAMBP. Policy and Outreach collaboration with Missy Gable, UCANR, Brian Oatman, UCANR and Gabriel Rentura, UCD, to establish policy regarding using the UC Davis name while performing volunteer service. Form letter in development to aid participants to explain their position as a CAMBPer to be completed and distributed for use by April 2019.
- <u>CAMBP website</u> updates and additions (FAQs page in progress to be completed by July 2019)
- <u>Developed syllabus and application process</u> for Journey Level 2019. First Journey Level cohort to graduate May 5, 2019
- Master Level tracks developed with first matriculation in 2022; commercial beekeeping, scientific research, native bees and pollinator gardens to be completed December 2019.
- <u>Honey Festival Woodland</u>, CA May 2018 Over 10,000 Attendees! CAMBP provided a live bee demo
- <u>Planting a Bee Garden and Bee Watching for Beginners</u> in association with Christine Casey at the Hagan Daaz Honey Bee Haven was developed and delivered in April 2018 to raise awareness of the importance of bee forage and wild bees. This course is now a pre-requisite for the CAMBP journey level.
- Course development in partnership with Amina Harris, at the RMI in 2018 as a pre-requisite for CAMBP journey level – <u>Honey and Other Products of the Hive</u> to be offered the CAMBP members and the public on April 14, 2019



 Social media metrics: Mailchimp "CAMBP Connection" 4 Newsletters in 2018. List is 652 strong with between 52 and 77% opens. Facebook Private group 110 members strong

Outcomes:

- The Pyramid of IPM Tactics from The Pennsylvania State University is a guideline that all apprentice beekeepers are responsible for understanding and implementing. The CAMBP <u>Study Guide Companion Booklet</u>, designed in 2018, is designed as a quick reference guide to the knowledge and skills expected of apprentice and journey level CAMBP beekepers.
- Advisory Board meeting held on November 30, 2018 inspired a positive change regarding the awareness of the language used for mite mitigation (treatment vs. control). We will host a round table discussion at the International Pollinator Conference July 20th, 2019 with our membership to discern how to foster increased inclusion and celebrate the diversity of mitigation practices. See a detailed review of meeting presentation for 2018 CAMBP activities <u>here.</u>
- <u>The CAMBP curricula</u> and <u>apprentice beekeepers</u> have positively impacted communities 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).
- <u>The CAMBP children's and high school programs</u> designed and delivered by the program director with the help of the CAMBP team members have provided grade 3 through grade 12 individuals with a deeper awareness of the importance of honey bee health and pollinators in relation to food security.
- <u>Bees in the Neighborhood. Best Practices for Urban Beekeepers</u> by E.L. Niño and V.L. Bolshakova was developed to assist urban backyard beekeepers and sideliners to support their beekeeping and outreach efforts at their local community level.



