

Interests for CVMVCD Research Program

The Coachella Valley Mosquito and Vector Control District (CVMVCD) is currently seeking proposals of collaborative research projects with university researchers having expertise in the field of vector and vector-borne disease surveillance, control, and ecology for potential funding. The goal of this collaborative effort will be to develop and evaluate applied vector and vector-borne disease surveillance and/or integrated vector management (IVM) strategies. **Funded projects should seek to improve CVMVCD's operations and surveillance programs and make the best use of the District's financial resources. Projects with a 2-year timeline are encouraged.**

CVMVCD Research Interests

These are the general interests of CVMVCD for FY 2024-2025. Projects should address at least one of the following:

1. Development and implementation of novel or enhanced physical, chemical, and biological control methods targeting at least one of the following:
 - a. Mosquitoes (primarily *Cx. tarsalis*, *Cx. quinquefasciatus*, *Ae. aegypti*)
 - b. Red imported fire ants, *Solenopsis invicta*
 - c. Synanthropic flies (e.g., eye gnats, house flies, filth flies)
 - d. Efficacy and impact of barrier applications in reducing mosquito populations
 - e. Movement of mosquitoes who encounter barrier applications
 - f. Impact of fine air particulates (PM 2.5 and PM 10) on ULV and WALs applications
2. Implementation of novel mosquito or arbovirus surveillance methods or enhancement of current surveillance methods in the Coachella Valley.
 - a. *Aedes* mosquitoes and their associated arboviruses (e.g., dengue virus)
 - b. *Culex quinquefasciatus* and *Cx. tarsalis*
 - c. West Nile virus, St. Louis Encephalitis virus, Western Equine Encephalomyelitis virus
3. Development of tools to improve the work with Sterile Insect Techniques
 - a. Improvements and automation of mosquito rearing practices
 - b. Improvements in separating mosquito pupae
 - c. Methods and metrics to monitor release ratios and mating competition
4. Analysis of environmental factors (e.g., drought) experienced in the Coachella Valley that may influence the amplification of arbovirus transmission or larval mosquito production with suggested operational strategies.
5. Basic biological studies that can impact the control strategies for the following:
 - a. Role of birds as hosts in co-circulating virus transmission cycles
 - b. Distribution of monogyne and polygyne fire ant colonies
 - c. Brown dog ticks in the Coachella Valley

Successful proposals will conform to the Research Proposal Guidelines. Questions on guidelines, standards, and research interests can be submitted to Jennifer Henke, Laboratory Manager at (760) 342-8287, or at JHenke@cvmosquito.org. Final proposals should be emailed to Jennifer Henke by **September 3, 2024**.