

Introduction to Resistance

This toolkit provides basic information on pesticide resistance mechanisms and explains the principles behind resistance testing. Use these resources to learn more about insecticide resistance.

1. Best Practices for Integrated Mosquito Management. American Mosquito Control Association. This manual includes AMCA's recommendations for pesticide resistance testing following CDC procedures. Resistance module begins on page 79.
Link: https://www.mosquito.org/assets/pdf/hr_november_2021_amca_bmp_ma/
2. AMCA Training Webinars: Insecticide Resistance - Module 12. American Mosquito Control Association. This module covers Integrated Mosquito Management (IMM), including mosquito biology and the five key components of IMM. The webinar is available for non-AMCA members with registration.
Link: <https://amca.ce21.com/item/insecticide-resistance-module-12-593980>
3. Global Mosquito Resistance Management Summit. Valent BioSciences
 - a. Resistance in U.S. Mosquitoes. Presented by Jennifer Henke, Coachella Valley Mosquito and Vector Control District.
Link: (<https://www.youtube.com/watch?v=0T4Hzqg35mQ>).
 - b. Molecular Drivers of Resistance in Malaria Vectors. Presented by Charles S. Wondji, Liverpool School of Tropical Medicine.
Link: <https://www.youtube.com/watch?v=XOYBzWhmZPQ>.
 - c. Post-Resistance Detection. Presented by Dina M. Fonseca, Rutgers University.
Link: (<https://www.youtube.com/watch?v=kLoXshsm804&t=103s>).
 - d. Unique Resistance Problems. Presented by Janet McAllister, PhD, CDC.
Link: (<https://www.youtube.com/watch?v=GBL2i-8NUpA>).
 - e. Transient Tolerance in Gravid Mosquitoes. Presented by Mark Clifton, PhD, Northshore Mosquito Abatement District.
Link: https://www.youtube.com/watch?v=GUu_pc259kg.
4. Insecticide Resistance Training Module. Insecticide Resistance Action Committee. This module introduces insecticide resistance management for crops. This module is intended for beginners or those who need a refresher.
Link: <https://irac-online.org/documents/insecticide-resistance-training-basic-module/>
5. Pesticide Resistance Management: Section 2 Insecticide Resistance. University of California Agriculture and Natural Resources. This section explains how pesticide resistance develops and how to manage or delay it.
Link: <https://www.youtube.com/watch?v=O4V85JAZon8&t=75s>