

 **Fyfanon<sup>®</sup> EW**  
Insecticide

# In a Class of Its Own



**FMC**

  
**ADAPCO<sup>®</sup>**  
Preserving Public Health

### Product Overview

- Water-based emulsion (apply undiluted or diluted with water)
- Active ingredient: 40.9% malathion
- Contains odor-reducing technology
- Use rate: 0.03 to 0.06 lbs. per acre
- Available in 2.5-gallon containers and 30-gallon drums

### Product Availability

- Exclusively from ADAPCO, LLC, an Azelis company
- Registered in all 50 states and US territories



## High Performance, Low Odor

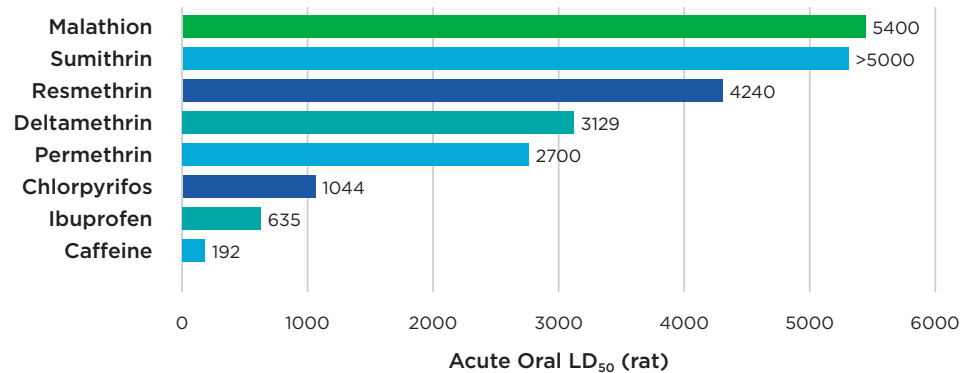
Malathion, the active ingredient in Fyfanon® EW, has been used in agriculture and vector control for almost 70 years. Keys to its longevity are malathion’s low mammalian toxicity, rapid environmental breakdown, and its effectiveness on target pests. The toxicity and environmental fate of malathion has more in common with industry accepted pyrethroids than other organophosphate products.

FMC offers two formulations of Fyfanon®: new, Fyfanon® EW for ground applications with **reduced odor** or the proven performance of Fyfanon® ULV Mosquito Insecticide for ground or aerial applications.

## How Does Fyfanon® EW Work?

Fyfanon® EW is ideally suited for ground applications in rotation with pyrethroid adulticides as part of your resistance management program. This proven formulation used internationally for many years, application by vehicle-mounted, backpack, or portable sprayers is formulated to produce the desired droplet size spectrum from standard ULV sprayers.

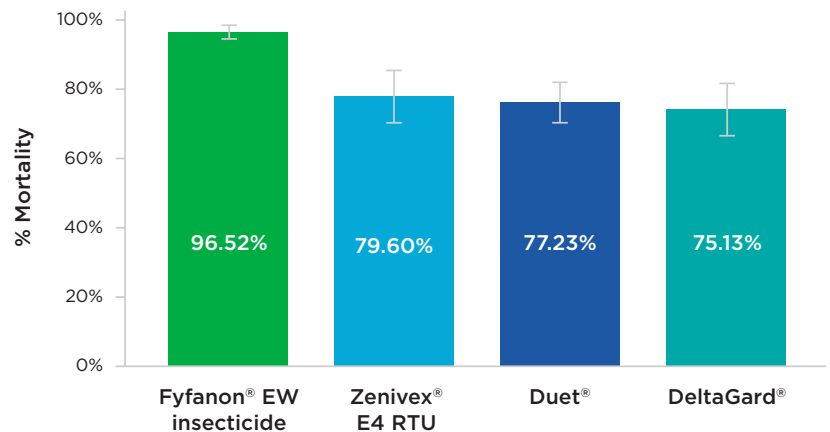
## Malathion Comparative Acute Toxicities (LD<sub>50</sub>)



An LD<sub>50</sub> is a measure of toxicity. The longer the LD<sub>50</sub> bar, the lower the toxicity. Compared to the active ingredient in other leading mosquito control products,

## Fyfanon® Side-by-Side Trial

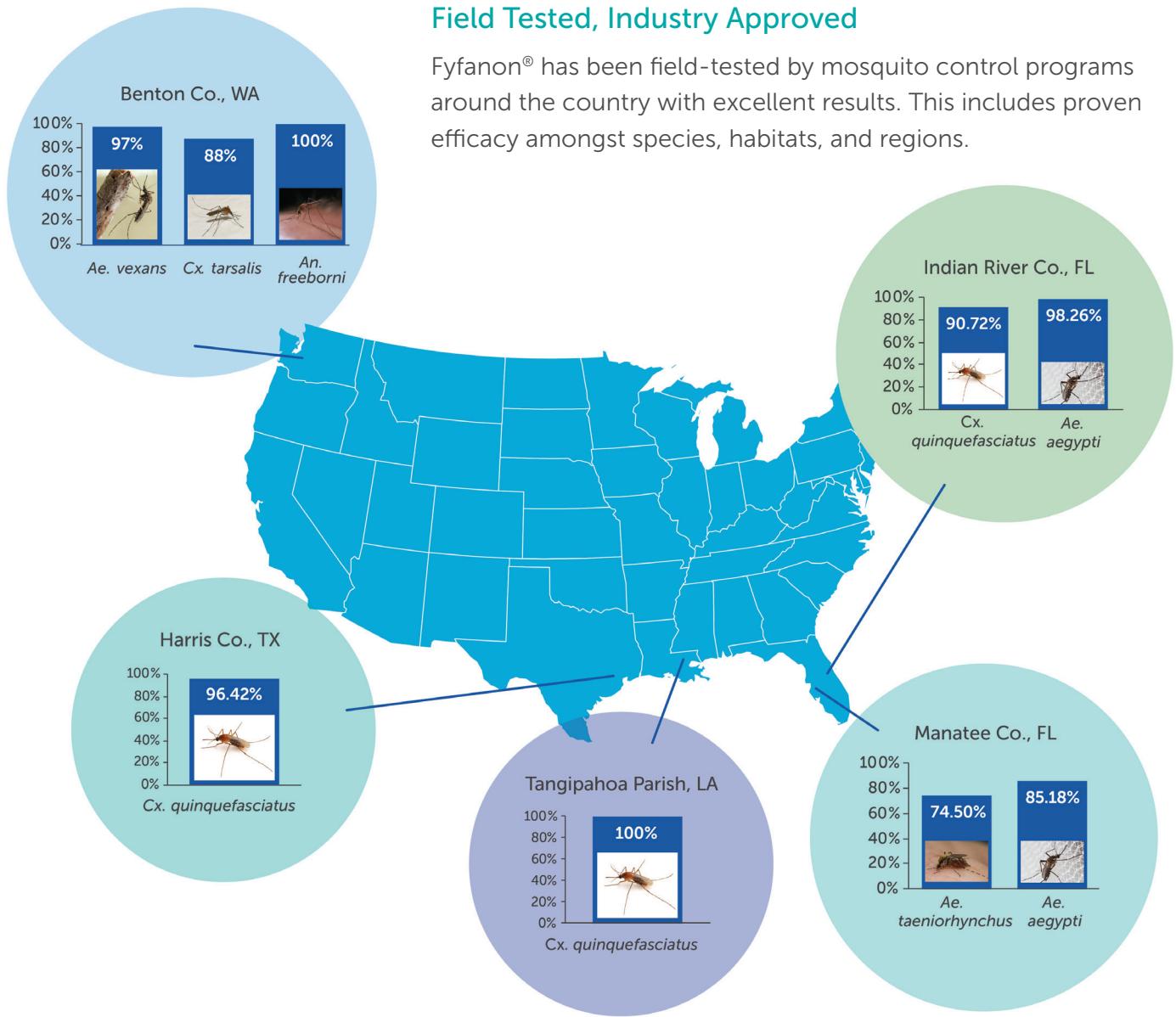
Fyfanon® offers superior efficacy against field populations of mosquitoes.



Data Source: Benton County (WA) Mosquito Control District, 2018  
 Zenivex is a registered trademark of Wellmark International. Duet is a registered trademark of Clarke Mosquito Control Products, Inc. DeltaGard is a registered trademark of Bayer.

## Field Tested, Industry Approved

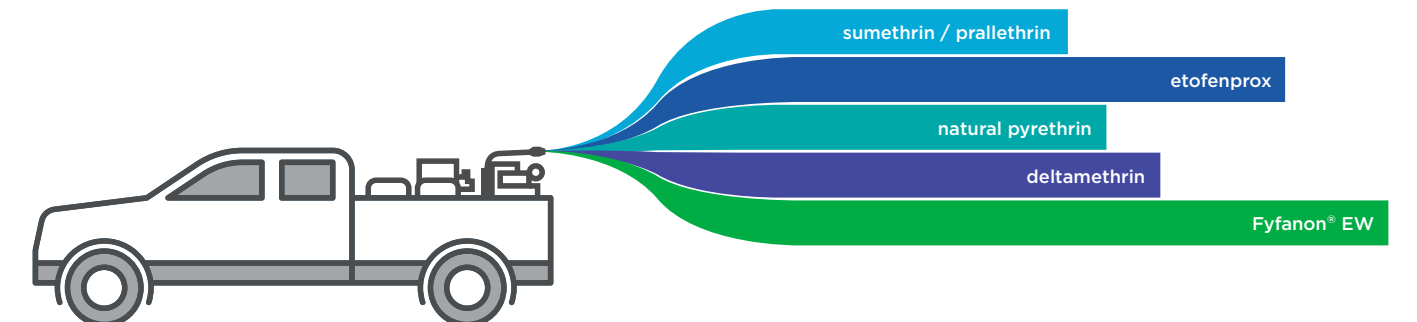
Fyfanon® has been field-tested by mosquito control programs around the country with excellent results. This includes proven efficacy amongst species, habitats, and regions.



Stark PM, Fredregill CL, Nolan MS, and Debboun M. 2017. Field cage insecticide resistance tests against *Culex quinquefasciatus* Say (Diptera: Culicidae) in Harris County, Texas, U.S.A. *Journal of Vector Ecology*. 42: 279-288.

## Efficacy and Economics

Make your dollar go farther with Fyfanon®. Fyfanon® EW outperforms the closest competition by over 28 more treated acres per dollar.



Note: Depicts acres treated for set budget dollars using mid label-rate for each product.



FMC has partnered with ADAPCO, LLC for over 30 years as their distribution partner. ADAPCO is the exclusive distributor for Fyfanon® EW in the United States.

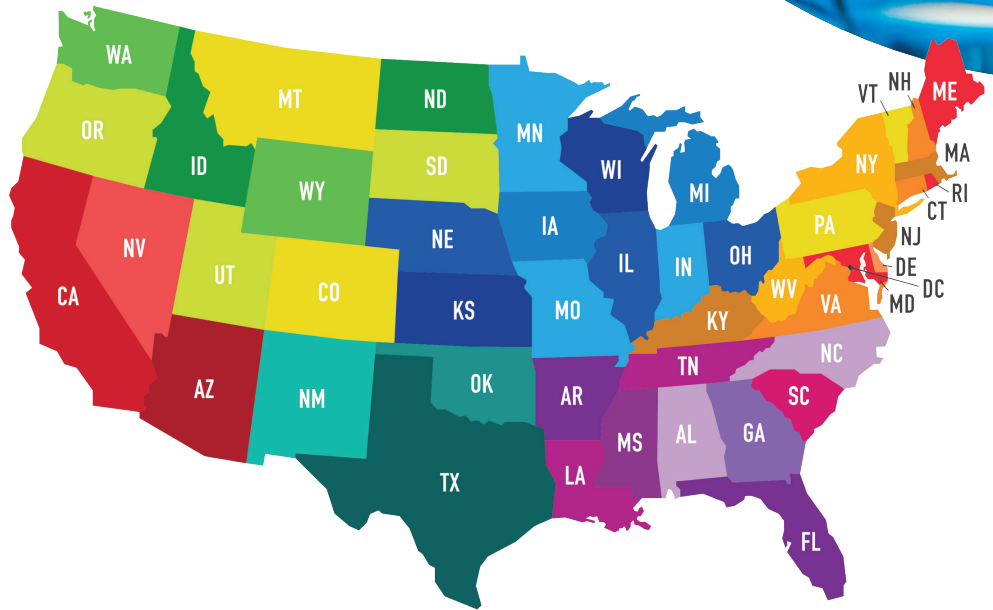


## Keeping You Informed About Resistance Management

At ADAPCO's Resistance Resource Center, we provide regional resources, resistance testing guidelines, and operational recommendations. Our mission is to offer the most up-to-date information to help you with resistance management.

Resistance to various insecticide classes has been well documented and has increased over time. Due to the limited chemistries available to mosquito control professionals, resistance is not an issue that should be taken lightly. The best way to help prevent and combat resistance from developing in your local mosquito populations, is to be proactive rather than reactive.

## Resistance Resource Center



- CDC Bottle Bioassay CONUS Manual
- WHO Insecticide Resistance Monitoring
- IRAC - Public Health
- IRAC - MoA Classification Scheme
- IRAC - MoA Classification Chart
- WHO Larval Bioassay Protocol

## Benefits of Resistance Management

- Class-to-class rotation of insecticides will delay the onset of insecticide resistance and preserve the effectiveness of your adulticides.
- No mid-season recalibration is required with the dual-tank system.
  - This system reduces the time and effort associated with alternating chemistries.
  - Chemical exposure to applicators and handlers is minimized.
- Emphasizing all components of integrated mosquito management ensures your program achieves the highest levels of control while preserving product chemistries.



*“The Manatee County MCD is committed to implementing a full IPM approach towards public-health mosquito control. We rotate a number of different adulticides in an effort to stave off resistance development. Based upon numerous comparative field trials and bioassays, scientifically-documented effectiveness, ease of use, cost and public acceptability **Fyfanon® EW** continues to be our primary adulticide in truck ULV sprayers.”*

Chris Lesser  
Director, Manatee County Mosquito Control

## Dual-Tank Systems

For a sound resistance management strategy, and for ease of alternating products mid-season, utilize ADAPCO's dual tank system. This set-up makes rotation simple and straightforward by reducing time, effort, and applicator exposure associated with alternating chemistries. This gives the applicator the ability to periodically switch from one family of chemistry to another in the same spray mission. With ADAPCO's dual-tank strategy, applicators may provide an integrated pest management approach to local mosquito control while avoiding peaks and valleys of annual rotation costs. This enables applicators to be good stewards of the products used for adult mosquito control and allows for effortless rotation between pyrethroids and organophosphates.



## ADAPCO's Dual-Tank Strategy Features:

- 15-gallon chemical tank
- Brass 2-way ball valve
- 10 feet of chemical tubing (standard but can add more to fit customer's needs)
- Stainless steel  
15.5" x 24" x 24"



# <25%

OF MOSQUITO CONTROL PROGRAMS ARE ROTATING PER WHO GUIDELINES\*

\*From analysis of public bid records

## Rotation Is Key

The World Health Organization (WHO) supports class-to-class rotation to fight development of resistance in adult mosquito populations. Rotation strategy will vary with your local resistance profile and capabilities. To implement an effective rotation strategy, select a rotational product with a mode of action that is different from the product class that you use the most. Consult your local ADAPCO or FMC representative for assistance in determining the strategy that best meets your needs and resistance management goals.

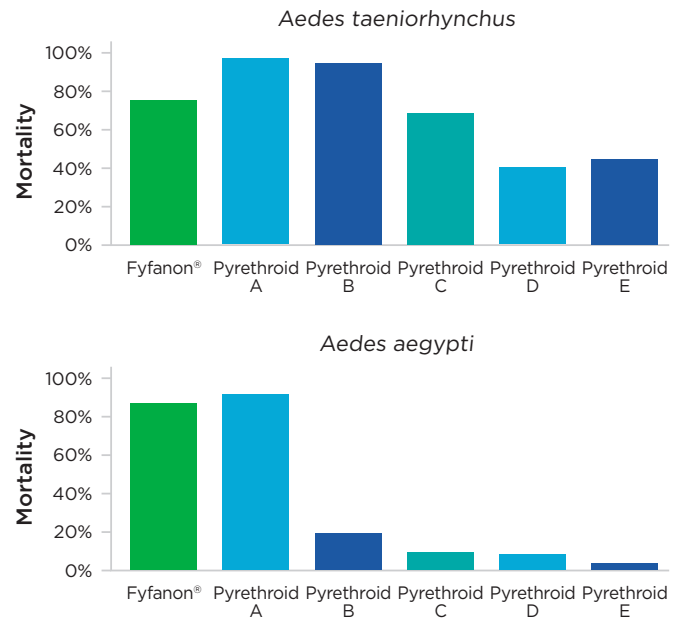
## Rotational Strategy

Use insecticides with different modes of action over time so the mosquitoes are not under constant exposure to a single chemical class.

- 1. Assess the insecticide susceptibility status** of your local mosquito populations. You can do this by monitoring pre- and post-spray trap counts, conducting laboratory assays, or doing field trials.
- 2. Use your resistance monitoring data** to create an adulticide rotation plan. This will prioritize the use of the active ingredients that resulted in the highest mortality in your local mosquito populations.
- 3. Conduct resistance monitoring** on an annual basis and adjust your adulticide rotation plan as necessary.
- 4. Incorporate your adulticide rotation plan** into your overall Integrated Mosquito Management plan. Balance your adulticiding with larviciding, surveillance, and educational aspects of your program.

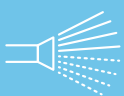
## Fyfanon® with Pyrethroids

The high mortality achieved with Fyfanon® and Pyrethroid A against both *Aedes taeniorhynchus* and *Aedes aegypti* means these products would be ideally suited for a rotational plan between the two products.



Data Source: Manatee County (FL) Mosquito Control, 2020.

## Options for Product Rotation



Divide your ULV fleet between Fyfanon® and pyrethroids and rotate through spray zones



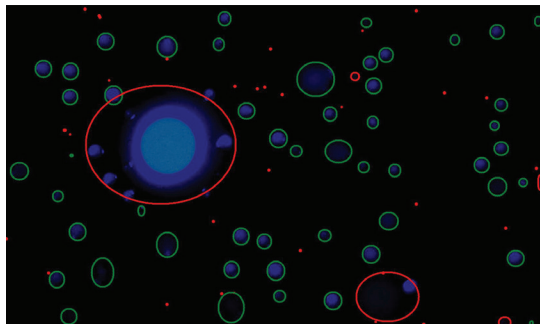
Use a pyrethroid during the first half of a season and Fyfanon® for the second half



Discuss other rotational options with your local ADAPCO representative (800) 367-0659 or FMC (800) 321-1362

## Fyfanon® EW Best Management Practice

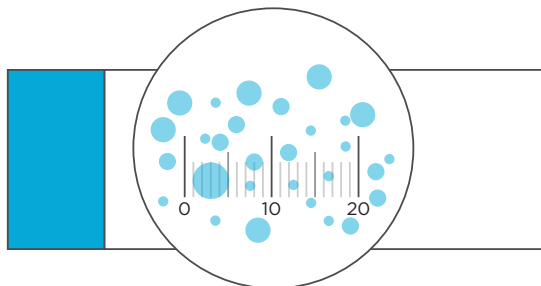
FMC recommends that you flush your system with water and a light detergent (soap). Water and soap or an appropriate vehicle wash are recommended as part of your overall cleaning protocol.



For droplet testing, a DC-IV Hot Wire Testing System meets the minimum specifications. However, DropVision® provides an enhanced view of the entire droplet spectrum, which can be helpful.

For best results, calculate your flow rate based on 0.03 to 0.06 pounds of malathion per acre. The ideal droplet distribution should contain the following:

- DVM = 15-25 microns in diameter
- $DV_{10} > 8$  microns
- $DV_{90} < 40$  microns



*"I was initially skeptical when I heard about Fyfanon® EW. The promise of a lower odor was intriguing, but my concern was that its lower AI (compared to Fyfanon® ULV) was too big of a tradeoff to get that lower odor. However, when we conducted cage tests using the lowest labeled rate and still had **nearly a 100% kill on local mosquitoes**, I became a believer. Fyfanon® EW has since become a mainstay of our operational program."*

Dennis L. Walette, Jr.

Director, Tangipahoa Mosquito Abatement District

## FMC's Commitment to Product Stewardship

FMC offers a free drum return program for Fyfanon® EW. Learn more at:

[surveymonkey.com/r/FyfanonReturns](https://surveymonkey.com/r/FyfanonReturns)

# FMC

## Your Partner in Mosquito Control

FMC partners with mosquito control professionals to promote environmental stewardship along with effective mosquito control. FMC has been serving ag, industrial, and consumer markets globally for more than a century with innovative solutions, applications and quality products.

Fyfanon® EW and Fyfanon® ULV Mosquito have been assessed and prequalified through the WHO Prequalification Unit Vector Control Product Assessment Team (WHO PQT/VCP).

## Also From FMC:

 **Fyfanon® ULV**  
Mosquito Insecticide

- Oil-based formulation (apply undiluted)
- Contains 96.5% malathion
- Low use rate for ground or aerial applications





## Applied Knowledge

Your guide to smarter, effective pesticide applications. Applied Knowledge is part of the FMC commitment to protecting our customers and our planet through education and support. To apply pesticides responsibly, be sure to follow this simple checklist every time:

- Use Registered and Authorized Pesticides
- Use Personal Protective Equipment (PPE)
- Use Proper Application Equipment
- Dispose of Empty Containers Properly
- Store Pesticides Securely
- Transport Pesticides Securely
- Maintain Good Personal Hygiene



[fmcprosolutions.com](http://fmcprosolutions.com)

(800) 321-1362



[myadapco.com](http://myadapco.com)

(800) 367-0659

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