

# **MOSQUITO CONTROL IN POPULATED AND RURAL AREAS - ADULT MOSQUITOS CONTROL ON RANGELAND, PASTURE, ETC.**

General Information

## **PRECAUTIONS AND RESTRICTIONS**

**BUFFER ZONES FOR AERIAL APPLICATION:** When making a Non-ULV application with aerial application equipment, a minimum buffer zone of 25 feet must be maintained along any water body.

Additional Requirements for Ground Applications – Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

For groundboom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy.

Additional Requirements for Aerial Applications – For aerial applications, the spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or 90% rotor diameter. Aerial applicators must consider flight speed and nozzle orientation in determining droplet size.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

## **APPLICATIONS**

Pour specified amount of this product into nearly filled spray tank. Add balance of water to fill tank. Keep agitator running during filling and spraying operations. If mixture does not mix readily, but tends to separate as an oily layer, do not use as injury to plants may result. Do not combine with wettable powders unless previous use of the mixture has proved physically compatible and safe to plants. Always thoroughly emulsify this product with at least half of total water before adding wettable powder.

In order that pesticidal residues on food and forage crops will not exceed tolerances established by the Federal Food, Drug, and Cosmetic Act, use only at specified rates and intervals, and do not apply closer to harvest than specified. The grower is responsible for residues on his crops as well as for damages caused by drifting from his property to that of others.

Consult State Agricultural Experiment Stations or the State Agricultural Extension Services for additional information as to the timing, number and rate of applications needed will vary with local conditions.

Limitations, Restrictions, and Exceptions

## MOSQUITO CONTROL

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For use by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

### ENVIRONMENTAL HAZARDS FOR WIDE AREA MOSQUITO ADULTICIDE USE

This pesticide is toxic to aquatic organisms, including fish and invertebrates.

When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply or allow it to drift onto blooming crops or weeds while bees

are actively visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local public health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort. When applying as a wide area mosquito adulticide, do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority.

For guidance, contact your State Water Board or Regional Office of the EPA.

#### PRECAUTIONS AND RESTRICTIONS

- Do not apply more than 0.23 pound active ingredient per acre per day.
- Only treat when mosquitoes are swarming or biting. Do not re-treat a site more than 3 times in any one week.
- However, more frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster effort.
- Apply when wind speed is greater than or equal to 1 mph.
- Do not apply by fixed wing aircraft at height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based

on public health needs.

- Before using, read the directions contained in the labeling for the proper methods and procedures which must be followed to achieve effective insect control and avoid permanent damage to automobile and other paint finishes. IMPORTANT: IN AREAS WHERE AUTOMOBILES, TRAILERS, TRUCKS AND PLEASURE BOATS ARE PRESENT, undiluted spray droplets of Malathion 8-E Insecticide will permanently damage vehicle paint finishes unless the aircraft used for the ultra low volume application meets all of the specifications listed below.

#### AERIAL APPLICATION

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns ( $Dv\ 0.5 < 60\ \mu m$ ) and that 90% of the spray is contained in droplets smaller than 100 microns ( $Dv\ 0.9 < 100\ \mu m$ ).

The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered.

Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle, and the nozzle flow rate(s) are properly calibrated.

#### GROUND BASED APPLICATION

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns ( $Dv\ 0.3 < 30\ \mu m$ ) and that 90% of the spray is contained in droplets smaller than 50 microns ( $Dv\ 0.9 < 50\ \mu m$ ). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

#### Thermal Aerosols or Fogs

For control of adult mosquitoes with thermal aerosols or fog, apply Malathion 8-E Insecticide at the rate of 0.23 pints in 100 gallons finished solution\* by ground equipment delivering 40.0 gallons per hour at a vehicle speed of 5 mph to treat a

swath width of 300 feet (equivalent to 180 acres per hour). At 0.23 pints Malathion 8-E Insecticide per 100 gallons of finished solution, this is equivalent to 0.23 pound active ingredient per acre.

\*There is a great variation in the chemical composition of fuel oils which may be used as thermal fog solvents.

These differences may cause sludge and/or affect the solubility of the Malathion 8-E Insecticide.

### Nonthermal Aerosols

Control of adult mosquitoes over a 300-foot swath can be obtained with non-thermal aerosols of Malathion 8-E Insecticide using the following rates at the indicated vehicle speeds.

#### Adult Mosquitoes on Rangeland, Pasture, and Other Uncultivated Non-Agricultural Areas (Wastelands, Roadsides)

Apply Malathion 8-E Insecticide at the rate of 2.8 fluid ounces in 2.0 to 8.0 quarts of water per acre for control of adult mosquitoes. Application may be made via ground or aerial equipment. This product can be mixed with a synergized pyrethrin emulsifiable concentrate (such as 6% pyrethrin + 60% PBO) in accordance with the most restrictive of label limitations and precautions indicated on both this and the tank-mixed product. Label rates must not be exceeded. This product may not be mixed with any product bearing a label which specifically prohibits such mixing. Prior to tank mixing large quantities mix a small amount in a glass jar to verify that the products are physically compatible.

Depending upon your operation needs, the amount of synergized pyrethrin can be reduced or adjusted. Application rates of this product and droplet distribution requirements remain the same as for this product used alone.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

#### Rates

[field rates 0](#)

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Timings

When weather conditions are favorable.