



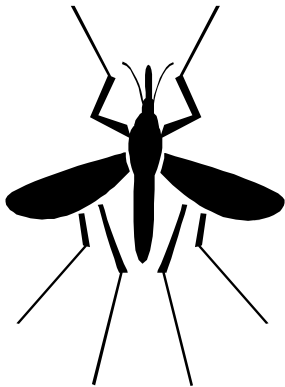
**St. Charles County Government  
Department of Community Health and the Environment**

1650 Boone's Lick Road  
St. Charles, MO 63301  
636-949-1800

## **MALATHION AND MOSQUITO CONTROL**

### **What is Malathion?**

Malathion is an organophosphate (OP) insecticide that has been registered for use in the United States since 1956. It is used in agriculture, residential gardens, public recreation areas, and in public health pest control programs. When applied in accordance with the rate of application and safety precautions specified on the label, malathion can be used to kill mosquitoes without posing unreasonable risks to human health or the environment.



### **How is Malathion Used in Mosquito Control?**

The mosquito goes through four distinct stages during its life cycle: egg, larva, pupa, and adult. Malathion is an *adulticide*, used to kill adult mosquitoes. In mosquito control programs conducted by state or local authorities, malathion is applied by truck-mounted or aircraft-mounted sprayers. Malathion is applied as an ultra-low volume (ULV) spray. ULV sprayers dispense very fine aerosol droplets that stay aloft and kill mosquitoes on contact. ULV applications involve small quantities of pesticide active ingredient in relation to the size of the area treated. For mosquito control, malathion is applied at a maximum rate of 0.23 pounds (or about 2.5 fluid ounces) of active ingredient per acre, which minimizes exposure and risks to people and the environment.

### **Does Malathion Pose Risks to Human Health?**

Malathion can be used for public health mosquito control programs without posing unreasonable risks to the general population when applied according to the label. EPA has estimated the exposure and risks to both adults and children posed by ULV aerial and ground applications of malathion. Because of the very small amount of active ingredient released per acre of ground, the estimates found that for all scenarios considered, exposures were several times below an amount that

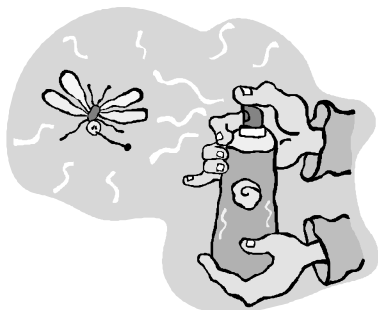
might pose a health concern. These estimates assumed that a toddler would ingest some soil and grass in addition to skin and inhalation exposure. However, at high doses, malathion, like other organophosphates, can overstimulate the nervous system causing nausea, dizziness, or confusion.

### **Does Malathion Pose Risks to Wildlife or the Environment?**

Malathion used in mosquito control programs does not pose unreasonable risks to wildlife or the environment. Malathion degrades rapidly in the environment, especially in moist soil, and it displays low toxicity to birds and mammals. Malathion is highly toxic to insects, including beneficial insects such as honeybees. For that reason, EPA has established specific precautions on the label to reduce such risks.

### **What is the Current Regulatory Status of Malathion?**

As part of its responsibility to reassess all older pesticides registered before 1984, EPA is currently reviewing malathion as part of its reregistration process. The review of malathion is scheduled for completion in 2006. A risk assessment covering all uses of malathion is currently available to the public for review at <http://www.epa.gov/opsrdd1/op/malathion.htm>. Visit the EPA Web site (see address below) for the most current information on malathion.



Source: US EPA, **Malathion for Mosquito Control**; <http://www.epa.gov/pesticides/>