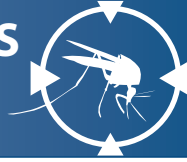


# MOSQUITO CONTROL MEASURES

## *in animal shelter settings*



Mosquitoes can spread a number of animal and zoonotic diseases. Control programs should focus on decreasing their numbers to minimize the risk of disease spread.

## Life Cycle

Mosquito prevention and control involves a basic understanding of their life cycle.

### ■ A mosquito life cycle has 4 stages: egg, larva, pupa, and adult

- The entire cycle can take as little as four days or as long as one month, depending on species and temperature
- All mosquitoes must have water for their life cycle
- Most eggs hatch within 48 hours

## Mosquito Control and Prevention

### ■ The best way to control mosquitoes is to remove potential egg laying sites

#### ■ Remove any sources of standing water

- Add drainage holes to structures or containers that may trap water (barrels, old tires)
- Change or circulate the water in pet bowls and birdbaths at least once a week
- Fill tree holes with sand, mortar or place drainage holes to prevent standing water
- Clean roof gutters to prevent them from becoming clogged and holding water
- Properly dispose of all trash, especially anything that could hold water

#### ■ Keep weeds and other vegetation mowed and trimmed to minimize shelter for adult mosquitoes

#### ■ For areas with ponds, consider stocking mosquito-eating fish

#### ■ Control of mosquito larvae

- The use of larvicides is a consideration, but should only be used as a supplemental measure
- Use only larvicides approved for use in your area; Check with your local extension office or department of pest management for a list of approved pesticides
- Do not apply pesticides to moving water (i.e. streams)
- Always read and follow all label directions
- Non-chemical pesticides (e.g., *Bacillus thuringiensis israelensis*) may be an option
- Methoprene products can be used to treat areas that collect water, such as bird baths, urns, old tires, flower pots, abandoned swimming pools, etc.

### ■ Control of Adult Mosquitoes

- This is the least efficient way to control mosquitoes
- Special equipment is needed to apply pesticides to kill adult mosquitoes (adulticides); small droplets are produced that drift through the air and contact adult mosquitoes to kill them
- Check with your local extension office or department of pest management to determine which pesticides are approved for use in your area
- The use of pesticides should only be supplemental to controlling mosquitoes through the reduction and management of mosquito egg laying sites
- Pyrethrin or 5% malathion can be fogged outdoors; Follow all label directions
- Contact your local extension agent for assistance in developing a mosquito management plan

### ■ Personal Protection

- Avoid being outdoors during prime mosquito biting times (dusk, dawn)
- Use insect repellent containing DEET, Picaridin or Oil of lemon-eucalyptus [NOTE: DEET can be toxic to companion animals, so should not be used on pets]
- Keep windows, doors and porches tightly screened

**With any mosquito control product, always read and follow all label directions carefully**

**It is a violation of state and federal law to use a pesticide in any manner that differs from the product label. Use only according to label directions to avoid environmental damage and animal or human injury.**

## For More Information

Potter MF, Townsend L, Knapp FW. Mosquitoes: Practical advice for home owners. University of Kentucky Department of Entomology. <http://www.uky.edu/Agriculture/Entomology/entfacts/misc/ef005.htm>

American Mosquito Control Association. Biological notes on mosquitoes. Available at: [www.mosquitoes.org/LifeCycle.html](http://www.mosquitoes.org/LifeCycle.html)

American Mosquito Control Association. Mosquito prevention and protection. Available at: [www.mosquito.org](http://www.mosquito.org)