



**Mosquitoes can spread diseases to animals and people. Control programs should focus on decreasing their numbers to minimize the risk of disease spread to you and your animals.**

## Control of Mosquito Egg Laying Sites

- This is the best way to control mosquitoes since they lay eggs in specific areas and these areas can be managed.
- Add drainage holes to structures and containers that may trap water (barrels, old tires).
- Change or circulate the water in stock tanks, pet bowls and bird-baths at least once a week.
- Drain tarps and covers of collected rainwater after a rain (i.e. silage covers).
- Pick up and properly dispose of all trash, especially anything that could hold water.
- Thin out weeds and remove old leaves from ponds. This will allow natural mosquito-eating fish to easily access areas where mosquitoes lay their eggs.
- Grade areas where road ruts, potholes and hoofprints exist (around stock tanks, ponds).
- Grade newly developed land to prevent standing water. These areas create areas for mosquitoes to lay eggs.
- 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.

## Control of Mosquito Larvae ("wigglers")

- 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 areas.
- Do not apply pesticides to moving water (i.e. streams).
- Products labeled only for home and garden mosquito larval control may be used. Follow all label directions.
- Non-chemical pesticides can be used.
  - **Always follow all label directions**
  - BTI (*Bacillus thuringiensis israelensis*) pronounced ba-SILL-us THUR-in-GEN-sus IZ-real-EN-sus.
  - BTI granules can be spread over an area of pasture that is flood-prone. Use at the beginning of the mosquito season and re-apply in the middle of the season.
  - BTI dunks can be used to treat stock tanks. One dunk can treat up to 100 square feet of water surface and can last up to 30 days.
  - Methoprene products can be used to treat areas that collect water. These include bird baths, urns, old tires, flower pots, abandoned swimming pools, etc.
- The use of pesticides should only be supplemental to controlling mosquitoes through the reduction and management of mosquito egg laying sites.
- Individuals may use hand-held Ultra Low Volume foggers, portable or fogging attachments for tractors or lawn mowers.
- 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

- Protect yourself against mosquitoes.
- When outside, wear long pants and long sleeves to cover skin.
- Use insect repellants on exposed skin. Repellants with DEET (N,N-diethyl-meta-toluamide) are the most effective.
- DEET is an insect repellent that is safe to use on people but **not** on pets.
- Make sure screens on windows and doors are in good repair.

**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 meat or milk residue hazards, environmental damage, and animal or human injury.**

## Mosquito References:

Lawler SP, Lanzaro GC. Managing Mosquitoes on the Farm. Department of Entomology, University of California, Davis. <http://axp.ipm.ucdavis.edu/PDF/MOSQ/mosquitoesonfarm.pdf>

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

Stringham M, Watson W. Managing Waste Lagoons to Control Mosquito Breeding. North Carolina State University Department of Entomology. <http://www.ces.ncsu.edu/depts/ent/notes/MedVet/wnv-manage.htm>

Larvicides for Mosquito Control. United States Environmental Protection Agency. <http://www.epa.gov/pesticides/health/mosquitoes/larvicides4mosquitoes.htm>