

INTEGRATED MOSQUITO MANAGEMENT PROGRAM

In 2012, The City of Daphne established a mosquito control program. The program operates within the City limits of Daphne and is based on accepted integrated mosquito management principles. The components of the program include educational mosquito awareness programs, surveillance, and environmentally safe methods of control. The Baldwin County Health Department also works cooperatively with other county agencies to eliminate breeding sites and partners with the municipalities in the county to share surveillance information and resources thereby enhancing the effectiveness of mosquito control throughout the county.

If you are a citizen of Daphne and have observed increasing mosquito activity or standing water in your area, please report the problem to the City's Public Works Department at 251-621-3182. If you have a small pond, ditch or low area that holds water for several days after a rain, you can pick up Bti briquettes (larvicide) from the City's Public Works facility. Application of these briquettes to areas of standing water will prevent mosquito larvae from developing into biting adults.

The following information and recommendations can help eliminate many vector problems.

- **Mosquitoes**

Mosquitoes

Mosquitoes are well known nuisances, but they are also capable of carrying and transmitting several diseases that affect people and animals. Because of these disease risks, it is important to understand some basic facts and precautions.

Human Diseases Carried by Mosquitoes

Mosquitoes can carry and transmit these serious diseases:

- Malaria
- Dengue
- Yellow Fever
- Encephalitis (Sleeping sickness)

Malaria, dengue, and yellow fever do not commonly occur in Alabama, but mosquito-borne encephalitis does occur and can result in serious illness. Encephalitis can cause lasting brain damage, nervous system damage, and in some cases death. Eastern equine encephalitis (EEE), St. Louis encephalitis (SLE), LaCross encephalitis (LAC) have all been detected in Alabama. Not all mosquitoes carry these viruses. Therefore, it is important to try and limit all mosquito exposures.

Mosquitoes do not carry AIDS, leukemia, or hepatitis.

Animal Diseases Carried by Mosquitoes

Mosquitoes can transmit the agent that causes heartworm disease in dogs and the virus that causes EEE, also known as sleeping sickness, in horses. Horses are considered to be 'dead end' hosts of EEE and WNV because they are not known to transmit the disease to each other or to humans.

Reducing Mosquito Exposure

Keep in mind that mosquitoes are most active in the early mornings and early evenings around dusk. Staying indoors during these times is one way to eliminate exposures, but is not always practical. If this is not possible, take the following precautions:

- Wear long sleeves and long pants when possible.
- Wear loose fitting, light colored clothes to retain less heat, making you less attractive to mosquitoes.
- Spray clothing with repellants containing permethrin or DEET (diethyl toluamide).
- Apply insect repellant sparingly on skin, avoiding the eyes, lips and nasal membranes.
- Use concentrations of less than 10% when applying DEET products on children and avoid their hands.
- Always follow label instructions when applying repellants.
- Prevent mosquitoes from entering your home by keeping window and door screens in good repair.

Mosquito Life Stages

Mosquitoes have 4 stages in their life cycle. All of these stages, except the adult stage require water to develop.

- Once deposited and exposed to water, mosquito eggs hatch into larvae in as few as 2-3 days.
- Larvae, or "wigglers," appear as small, slender creatures which dart about in the water. This stage can last from 4 days to 2 weeks, depending on the food sources and water temperature.
- Larvae then develop into pupae. Pupae, or "tumblers", look very much like small dark cocoons but are very mobile in the water.
- After a short time, usually about 2 days, the adult mosquito emerges from the pupae. After drying its wings, the adult is ready to fly off in search of food.

The life cycle of some mosquitoes can be completed in 10 days. Only the female mosquito bites and feeds on humans and animals. The female needs the protein from the blood to produce the eggs. One female can produce 100-200 eggs per blood meal.

Mosquito Breeding Sites

Different types of mosquitoes prefer to deposit their eggs in different habitats. Some species prefer woodland depressions or grassy shorelines. Others prefer to deposit their eggs in and around neighborhoods. These are called 'container breeders'. They deposit their eggs in any type of container that will hold water. One water-filled can or bottle can be the hatching site for several thousand mosquitoes.

Stop Raising Mosquitoes in Your Yard

Listed below are some helpful tips on how to reduce potential breeding sites in your yard.

- Dispose of unused containers that collect water such as old buckets, cans, bottles or jars.
- Repair leaky pipes and outside faucets, and keep drains and gutters unclogged so that water does not collect in these areas.
- Change the water and scrub the sides of bird baths, animal troughs and pet watering dishes at least once a week to eliminate mosquito eggs.
- Properly discard unused tires, make holes in them or store them in a covered area so that water cannot collect in them. Tires make excellent breeding sites.
- Turn wheelbarrows, tubs, children's wading pools and boats upside down or store them under cover when not in use.
- Keep weeds, vines, hedges and grass trimmed since mosquitoes use these shady areas as resting places during hot daylight hours.
- Fill tree holes with sand or mortar so that water does not collect in them. These holes are a favorite breeding spot for the mosquito that carries LaCross encephalitis.
- Change water in vases and pots holding flowers or cuttings twice weekly.
- Fill in holes or depressions in your yard where water tends to collect.

Prevention is the Key

Take an active role in reducing your exposure to mosquitoes. Eliminate breeding sites before mosquitoes become a problem, and reduce your chances of being bitten by wearing protective clothing and repellants.

Current Mosquito Control from the Baldwin County Health Department

Currently, the City of Daphne and the Baldwin County Health Department are distributing larvicide briquettes that were purchased through funds from the Baldwin County Commission. These briquettes are used to kill mosquitoes in the larval stage. They can be used in areas where water stands, such as ponds, ditches, low or depressed areas and swampy areas. Larvicide is distributed upon request to residents of Baldwin County, who are 18 and older, along with precautions and instructions for use.



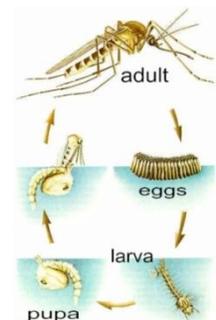
Mosquito Larvae



Mosquito



Mosquito Larvae
in Water



Mosquito Life Cycle