## **Dealing With Mosquitoes**

## AGRI-VIEWS

by Chuck Otte, Geary County Extension Agent

If you haven't already encountered them, it won't be long until the slapping of mosquitoes will become a regular outdoor activity. While many people fear ticks and the diseases they can carry, mosquitoes can be equally threatening and far more prevalent in most cases. To make matters even worse, by most estimates, there are around 50 species of mosquitoes in Kansas. Some are big, some are small, all will bite us for a blood meal and even those that don't carry diseases are going to make us itch!

Different species have different preferences for habitat, weather and even preferred hosts. Some species will travel several miles for a meal, others won't travel very far at all. We know that some species are more prone to carrying certain diseases but unfortunately identifying most mosquitoes to species is not easily done! One thing that they all have in common, however, is that they all need standing water to reproduce.

The best defense against being bit is personal protection in the form of clothing that you wear, time of day when you are active and using repellents to keep mosquitoes away from you. The only effective way to reduce mosquito populations is to eliminate breeding areas. All those devices that are supposed to repel adult mosquitoes, all those plants that are supposed to repel mosquitoes, all those devices that are supposed to attract mosquitoes and then kill them with electricity, or whatever, are essentially worthless. When placed in replicated scientific experiments, none of them make any difference. Spraying of insecticides, either traditional spraying or the use of foggers, do very little, if any good at all, for controlling of adult mosquitoes.

To control breeding sites you need to not have anything holding standing water for over a week. During typical summer weather mosquitoes can go from egg to adult in less than ten days. In cooler weather generation time will be longer. Saucers under potted plants, pet water dishes, bird baths, even backyard ornamental ponds can serve as mosquito breeding areas. Change pet water and birdbath water every five days. Don't just add more water, dump everything out, rinse it out and refill. Potted plants outside probably don't need a saucer under them. Just let the excess water run through. For ponds that can't be drained or swampy areas on your property use mosquito dunks. These contain a form of biological control which will effectively kill mosquito larvae without hurting fish or other aquatic creatures. You literally just toss one or more into the water body, based on size, and they work for thirty days or longer to control mosquito larvae. Dunks are available at most hardware stores.

For personal protection, forget the nice smelling stuff, forget the wrist bands, forget the electronic devices. For clothing you can use treatments containing permethrin. They are very effective but they only go on clothing, not skin! For skin protection you want something that contains DEET, Picaridin or oil of lemon eucalyptus (OLE). Products containing DEET should be 15% to 30% active ingredient. Use lower concentration products on children (none on children under two months) and wash it off as soon as you come inside. Concentrations of DEET over 30% gain you nothing on length of control Picaridin should be a spray of 20% (lotions and wipes are not as effective), and OLE should be 30%. Read and follow label directions