## **Dealing With Mosquitoes**

**AGRI-VIEWS** 

by Chuck Otte, Geary County Extension Agent

Just as sure as we have rainy weather in May and June we will have mosquitoes to deal with! From what I've seen since the first of June, this year is no exception. While many people will claim that this, that, and the other, sometimes off the wall things will work, we are going to focus on the tired and true proven ways of dealing with mosquitoes.

First and foremost, yard wide or area wide fogging to control adult mosquitoes is very ineffective and winds up killing far more beneficial insects than it does mosquitoes. One of the challenges is that mosquitoes, for being such a small insect, are pretty strong flyers. It isn't uncommon for them to travel up to a quarter of a mile for a meal. We have several species of mosquitoes in Kansas. Some roost and rest where they feed while others roost some distance from where they feed. During the day many mosquitoes rest fairly low to the ground in vegetation, shrubs and small trees. Areas where fogging attempts just don't reach very well.

Various mosquito traps and high voltage zappers are again not very effective either. The grids on the zappers are often to small to electrify the mosquitoes. The different devices that are supposed to use scents to attract mosquitoes may wind up bringing more into your yard then you would have had to begin with. As far as plants to place around your deck and patio that are supposed to have natural mosquito repellent abilities, well, in numerous independent replicated trials, none of them worked. The ultrasonic devices are also on the list of things that simply do not work! Probably the best thing to keep mosquitoes at bay is simply the wind!

The first truly beneficial step is to control breeding areas. Mosquitoes want shallow, calm water, with emerged vegetation if possible, to lay their eggs in. They will use pet watering bowls and bird baths. They'll breed in the water filled saucers under potted plants. They'll use clogged gutters that hold water, old tin cans and old tires. Anything that will hold water for 7 to 14 days can generate a new generation of mosquitoes. In the kind of weather that we are having right now, we can get a new generation in just 7 to 10 days! Drain these water holding areas, and change the water in bird baths and pet waterers every couple of days. In larger areas like ponds or ditches consider using mosquito dunks which are biological controls that only affect mosquito larvae. Mosquito dunks are very effective and safe to use around fish, wildlife and pets.

The line of approach that you ultimately need to depend on is individual protection through insect repellents. While many companies and people make many claims, so far only two basic active ingredients have been show to give consistent control and are readily available. Those two products are DEET and picaridin. They can both be used on skin and clothing. There are many different concentrations of DEET in the products and most researchers feel that over 30% doesn't really gain you too much extra protection. Reapply products as directed and once you've returned inside, wash the skin where it was applied. There is some evidence that oil of lemon eucalyptus also is effective, but may be difficult to find. There are permethrin based clothing treatments that are very effective but are only to be used on clothing. All of these products work equally well on chiggers and ticks too. The permethrin based products also appear to survive several rounds of machine washing which can be helpful if you forget and walk into a chigger infested grassland! The key to remember with all of these products is to read and follow all label directions and precautions!