

PLANT DISEASE AND INSECT ADVISORY



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Greenbugs Are Being Reported in Wheat

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There are widespread reports of threatening greenbug numbers in wheat, so growers need to “get their shadow” into their fields and look for greenbugs, especially in areas that have not received significant rainfall.

OSU greenbug treatment recommendations have significantly changed as a result of research conducted at OSU and the Agricultural Research Service over the past 5 years. The old scouting method requires the scout to dislodge greenbugs from plants

on to the ground and count them. To get an accurate count of greenbugs in a field, at least 15 samples should be recorded in a field which can be very time consuming. Fortunately, OSU and USDA entomologists have developed a new method for determining treatment thresholds and for scouting fields that is accurate, faster, and quite simple.

The new scouting technique is called Glance ‘n Go. With this system, scouting for greenbugs could not be simpler. Glance ‘n Go was developed from data collected in over 120 wheat fields in Oklahoma over 3 years. This system does your aphid counting for you. All you have to do is keep track of the number of tillers with greenbugs on them and use the decision columns to decide whether you do or don’t need to treat. It also has a built-in method for determining if the *Lysiphlebus* wasp is active enough to control your infestation.

The treatment threshold can be estimated by accessing the Greenbug Expert System which is located on the Entomology and Plant Pathology website at <http://entopl.okstate.edu/>. Just click on “Agricultural Models”, then Cereal Aphids Pest Management, and you will find yourself in the Greenbug Expert System. By following some simple instructions, you can use the Economic Threshold Calculator to determine your treatment threshold.

Because it has been so unseasonably warm I recommend that you choose the month of March when selecting a month. Why? Because the model uses historical temperatures to predict the population growth of greenbug populations, and it has been so warm that the March model is probably more appropriate. Once you determine the threshold, print off a scouting form to record your sampling results and make a treatment decision. Based on this model, the treatment thresholds for greenbugs in March should probably fall around 4-6 greenbugs per stem (tiller).

Before choosing an insecticide, consider the effectiveness, cost of application and grazing restrictions that apply for each chemical. Products registered for greenbug control include Dimethoate 4E at 0.5 to 0.75 pints per acre, Lorsban 4E at 0.5 to 1.0 pints per acre, methyl parathion 4EC at 0.5 to 1.5 pints per acre Mustang MAX at 3.2 to 4 fluid ounces per acre, Proaxis at 3.84 fluid ounces per acre and Warrior at 3.84 fluid ounces per acre. All of these registered products were tested in our greenbug screening trials over the past few years and were effective at controlling greenbugs.

Grazing and preharvest restrictions are as follows: Lorsban - 14 days for grazing, 28 days for harvest; dimethoate - 14 days for grazing, 35 days for harvest; methyl parathion - 15 days for grazing or harvest; Mustang MAX - 14 days for grazing or harvest; Proaxis - 30 days for grazing or harvest; Warrior – 7 days for grazing, 30 days for harvest.

It is very important to follow these grazing restrictions. In 1994, a number of cattle poisonings occurred in Western Oklahoma which were mainly associated with dimethoate applications. In most cases, the poisonings occurred because the cattle were released into the field early, while the dimethoate residues were still high. However, in a few cases, the residual dimethoate remained at higher than desirable levels for use as feed, even after the grazing restriction had passed. Observations suggested that dimethoate did not degrade as quickly as expected under that set of field conditions (dry and cold, with plants under extreme water stress). The best way to avoid cattle poisonings is to follow these steps:

- spray only when greenbugs exceed treatment thresholds
- apply at the lowest labeled rate to obtain adequate control
- make sure spray equipment is calibrated and in proper working order
- obey grazing restrictions
- use something other than dimethoate if wheat plants are under extreme water stress and temperatures are predicted to remain cold for a long time period.

A final reminder is to **always** read and follow the label for application directions and use restrictions.

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