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## EC72-1529 Controlling Sorghum Greenbugs

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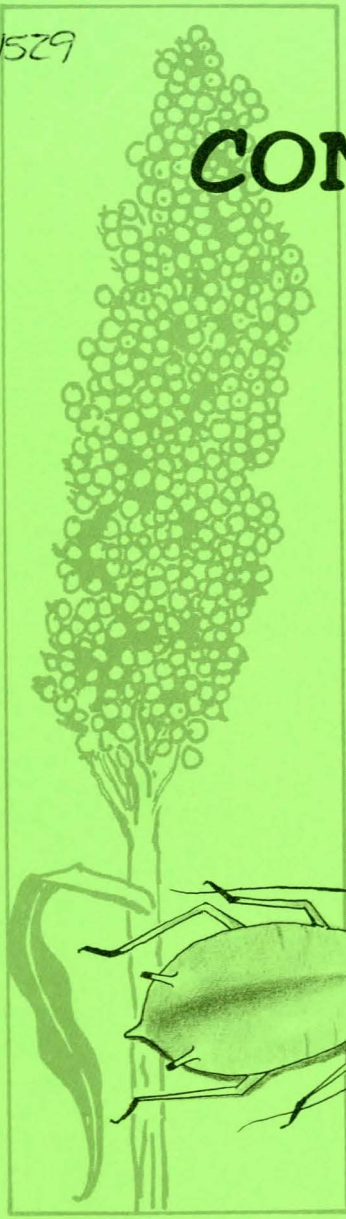
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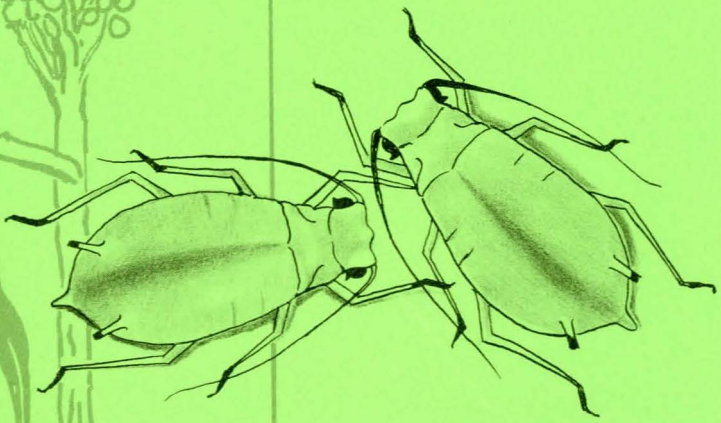
# CONTROLLING Sorghum Greenbugs



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# Controlling Sorghum Greenbugs

Robert E. Roselle and David L. Keith  
Extension Entomologists

Greenbugs are the most important insect pest of grain and forage sorghums in Nebraska. Since initial infestations in 1968, greenbugs have been a limiting factor in many fields each year.

## Greenbugs or Corn Leaf Aphids?

Corn leaf aphids are often mistaken for greenbugs. They normally do not cause serious damage to sorghums. Controls are rarely justified in Nebraska. The exception would be if infestations are very high and continue after boot stage. The following will help you distinguish between greenbugs and corn leaf aphids.

**Greenbugs:** Light green or greenish-yellow with a narrow darker green stripe down the center of the back. Feet black, legs green. Cornicles (small "pipes" near the tail) are green with black tips. Greenbugs usually develop on the undersides of leaves.

**Corn Leaf Aphids:** Blue-green, darker than greenbugs, lack the green stripe down the back. Feet, legs and cornicles all black. Heads are dark. Usually develop in the whorls, and disappear soon after heads emerge.

## When will Chemical Controls Be Profitable?

Greenbugs suck sap and inject saliva poisonous to plants. They cause much discoloration, and kill plant tissues. The general guide for control is:

<i>Plant size</i>	<i>When to treat</i>
Emergence to 6 inches	Visible yellowing, with greenbugs on lower leaves.
6 inches to pre-boot	Before any entire leaves are killed.
Pre-boot and larger	When greenbug numbers are sufficient to cause loss of function of 3 or more lower leaves, and parasitism is less than 20%.



## Indication of Damage

Small plants are often killed soon after greenbugs develop on them. The first evidence is yellowing, then browning of plants. Colonies developing on undersides of leaves will cause reddish-brown spots visible from above. When colonies develop over most of the leaf surface, entire leaves are killed.

## Chemicals for Control

If applied by farmers with ground equipment one of the following is suggested:

<i>Material</i>	<i>Amount formulation per acre</i>	<i>Restrictions</i>
Dimethoate 267	1 pint	28 days
Malathion 57% EC	1½ pint	7 days
Diazinon AG 500	1 pint	7 days
Di-Syston 15% granules	3½ to 6 lbs.	30 days
Thimet 15% granules	3½ to 6 lbs.	30 days

Granules appear to be more effective than sprays.

Sprayers should have drop nozzles so that the spray is directed into plants. Contact is necessary for good control.

Granules can be applied over the rows with cultivator-type granular applicators, or broadcast by ground equipment or aircraft.

For aerial spray applications:

<i>Material</i>	<i>Amount active ingredient per acre</i>	<i>Restrictions</i>
Ethyl parathion	8 ounces	12 days
Di-Syston	8 ounces	28 days
Dimethoate	8 ounces	28 days

**Caution!!** Ethyl parathion and Di-Syston sprays are suggested for aerial applicators only. They are **not** recommended for farmer use. These materials are highly toxic and must be used only by trained and experienced operators to assure safety. Fields sprayed with parathion or Di-Syston should not be entered for three days, and should be posted for three to five days if possible.

### **Chemicals at Planting Time**

Thimet 15G and Di-Syston 15G are registered for planting time application. Either product should protect plants for 30 to 60 days, depending upon soil type and rainfall.

It is doubtful that planting time applications on early planted sorghum are feasible. Early infestations can be detected by close observation, and controlled if necessary by sprays or granules. Late planted sorghum is more likely to be seriously damaged by greenbugs in the seedling stages, so planting time applications of granules may be profitable.

The amount of Thimet or Di-Syston 15G to use at planting is 8 ounces of formulation per 1000 feet of row on 30 to 40 inch row spacings.

**Caution:** Do not apply in direct contact with seed, because stand reduction may occur. Use a band over the row, or at the side of the seed furrow. Do not use emulsifiable Di-Syston or Thimet at planting time.

### **Natural Control**

A tiny wasp that deposits eggs inside greenbugs is the most important natural control. Wasp larvae feed inside greenbugs, causing the aphids to die, and turn brown or tan. Dead greenbugs are called "mummies." When parasitism reaches 20 to 25 percent, natural control usually will take place in 7 to 10 days, and chemicals are not necessary.

Lady beetles, and their larvae (alligator shaped creatures, usually orange and black) feed on aphids, but usually are not numerous enough to control severe greenbug infestations. Lady beetles purchased from commercial sources do not remain in fields after they are released. Importing lady beetles is not recommended, as they are of little value for greenbug control.

To simplify recommendations, trade names have been used in some instances. This is not to be interpreted as an endorsement of a particular brand, nor is it intended to discriminate against similar products which are not mentioned by name.