

Carbine® 50WG Insecticide

Unique and powerful control of aphids and lygus with a low impact on many important beneficial arthropods.



COTTON

Product Information:

Preserve yields and lint quality by reducing insect pressure on your cotton fields with Carbine® 50WG insecticide. With a unique mode of action, the active ingredient in Carbine 50WG insecticide, flonicamid, starves plant bugs (lygus), fleahoppers and aphids, while having a low impact on many important beneficial predators. Carbine 50WG insecticide is labeled for use in cotton in California and Arizona.

Lygus especially damage the pattern of fruiting in cotton plants. When impacted, large gaps can sometimes be created due to disruptions in the allocation of carbohydrates. Normally, carbohydrates are directed to the boll sinks. When impacted by plant bugs (lygus), carbohydrates are redirected to the growing tip of the plant. Impacted plants are typically taller and more difficult to defoliate. This leads to more leaf trash at harvest which, in turn, lowers lint turnout and generates poorer lint quality.

QUICK FACTS:

- Carbine 50WG insecticide controls target pests by contact and ingestion, provoking rapid and irreversible feeding cessation in as little as 30 minutes after application, which can result in greater yields from the reduction in damage to squares and fruit.
- The unique chemistry of flonicamid, the only active ingredient in Group 29 (pyridine carboxamides), kills target pests very differently than other products.
- Translaminar movement throughout the leaves allows Carbine 50WG insecticide to remain on and in the leaf, impacting insects feeding on both upper and lower leaf surfaces.
- With no cross resistance to other active ingredients, Carbine 50WG insecticide is an excellent resistance management tool, controlling only plant bugs, aphids and fleahoppers.



Research

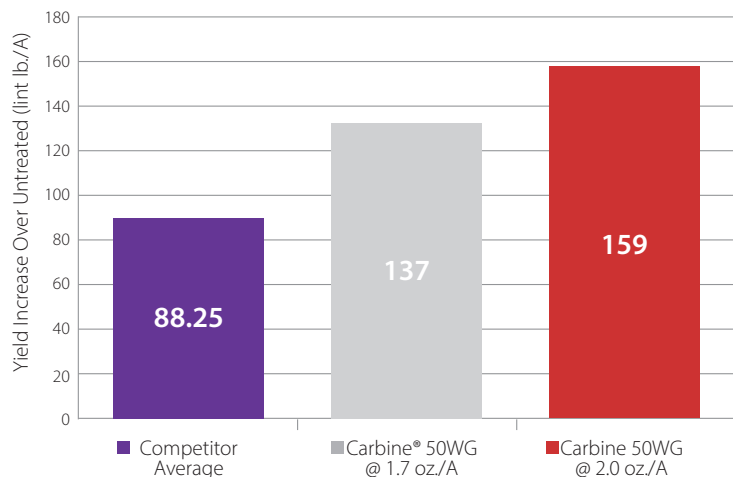


Figure 1.

Carbine 50WG insecticide's field performance against tarnished plant bug and aphid in Mid-South cotton.

Source: Data from five replicated field trials (AL, AR, LA, MS, SC) following two applications conducted in 2004 by North America contract research.

Application Guidelines:

A regime of two applications of Carbine 50WG insecticide applied not sooner than seven days apart may result in improved lygus control.

- Carbine 50WG insecticide can be tank mixed with other crop production chemicals such as growth regulators, other insecticides, fungicides and foliar nutrients. See the label for additional information.
- An adjuvant is not required, but crop oil concentrate (COC), methylated seed oil (MSO) or non-ionic surfactants (NIS) may provide increased coverage. Carbine 50WG insecticide may be applied in spray solutions containing fertilizers or micronutrients, but liquid fertilizer should not be used as the sole carrier for Carbine 50WG insecticide.
- Carbine 50WG insecticide may be applied through sprinkler irrigation.

Label:

- Active ingredient: flonicamid (IRAC class 29) pyridine carboxamide
- Signal Word: WARNING
- PPE: Applicators and other handlers must wear long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves and protective eyewear.
- REI: 12 hours
- PHI: 30 days

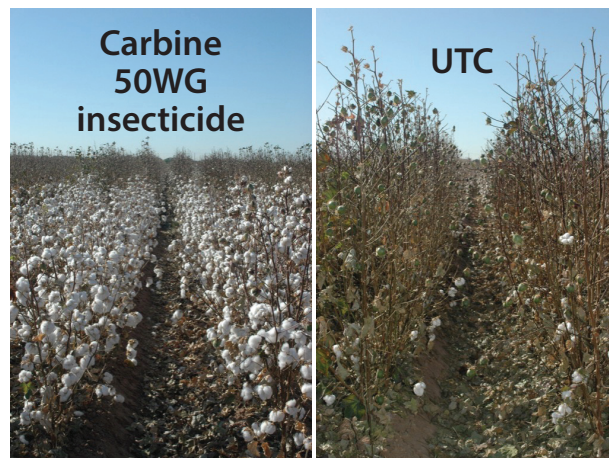


Figure 2.

Carbine 50WG insecticide at 2.8 oz./A compared to the untreated control. Loss of flowers have resulted in increased vegetative growth in the untreated crop, resulting in taller, less productive plants.

Source: Peter Ellsworth, University of Arizona, 2011.

Target Pest	Rate of Application		Application Directions
	Lbs. Active Ingredient/A	Fl. Oz./A	
Tarnished Plant Bug* <i>(Lygus lineolaris)</i>			Begin applications before populations start to build, or at economic thresholds. The lower rate can be used early in the season for low pest densities or when tank mixing with other cotton labeled insecticides. Use the high rate for large pest populations, dense foliage and longer residual. Rapidly growing cotton may need retreatment.
Western Plant Bug* <i>(Lygus hesperus)</i>	0.053 – 0.089 lb./A	1.7 – 2.8 oz./A	
Cotton Fleahopper <i>(Pseudatomoscelis seriatus)</i>			
Aphids Including Cotton Aphid <i>(Aphis gossypii)</i>	0.044 – 0.089 lb./A	1.4 – 2.8 oz./A	

Thorough spray coverage of plant foliage is essential for optimum control. Use a minimum of 5 GPA by ground and 3 GPA by air.

Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Do not apply more than 2.8 oz./A (0.089 lb. ai/A) per application. Do not apply more than 8.4 oz./A (0.267 lb. ai/A) per year. Do not apply more than three applications at the 2.8 oz./A rate per year. Allow a minimum of seven days between applications.

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50WG
INSECTICIDE

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