

COTTON - PLANT BUG AND FLEAHOPPER

General Information

GENERAL INFORMATION

Carbine 50WG is a 50 percent water dispersible granular formulation of the insecticide flonicamid. Carbine 50WG provides control of a variety of aphid and plant bug pests and suppression of some non-aphid pests in cotton, pecans and rapeseed and canola varieties.

The rate of application is dependent upon the insect species present, the level of insect pressure, and the amount of foliage present. Begin applications before populations begin to build or at economic thresholds according to local economic guidelines. Refer to local Cooperative Extension Guidelines and/or time applications for scouting results. Thorough plant coverage is essential for good performance.

Mode of Action. Carbine 50WG is a member of the pyridinecarboxamide class of chemistry. Carbine 50WG controls target pests by contact and ingestion provoking rapid feeding cessation. Aphids and other insects could remain on the plant until they desiccate

Resistance Management. Some insects are known to develop resistance to products used repeatedly for insect control. Carbine 50WG is effective for strategic use in programs that attempt to minimize pest resistance. Carbine 50WG is a Group 9C (selective feeding blocker) insecticide and may be tank mixed or rotated with insecticides from different groups. An insect management program that includes alternation and/or tank mixes between Carbine 50WG and other labeled insecticides that have a different mode of action and/or control insects not controlled by Carbine 50WG is essential to prevent insecticide resistant populations from developing. Consult with your Federal or State Cooperative Extension Service representatives for guidance on the proper use of Carbine 50WG in programs that seek to minimize the occurrence of pest resistance.

Use Restrictions

Do not use this product in home gardens.

Crop Rotation Restrictions

Following application of Carbine 50WG, any crop listed on this label may be planted at any time. All other crops may be planted 30 days after the last application of Carbine 50 WG.

Mixing and Loading Instructions

The spray system must be clean and free of residues from previous applications. Fill the spray tank 1/2 full with clean water. The agitation system must be operating and sufficient to provide uniform spray mixing during application and until the spray tank has been emptied. Complete filling the spray tank to the desired level.

Do not store Carbine 50WG spray mixtures overnight.

Do not use liquid fertilizer as a carrier for Carbine 50WG.

Tank Mixtures

Carbine 50WG can be tank mixed with products labeled for use on the crops/sites listed on this label in accordance with the more (most) restrictive of label limitations and precautions. No label dosage rates may be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Read and follow all manufacturers' label recommendations for the companion product.

Carbine 50WG is generally compatible with other insecticides, fungicides, fertilizers and micronutrient products provided sufficient free water is available for dispersion of all the tank mix products. However, the physical compatibility of Carbine 50WG with tank mix partners should be evaluated using a jar test before use.

The crop safety of all potential tank mixtures on all crops may not have been tested. Before applying any tank mixture not specifically recommended on this label, the safety to the target crop must be confirmed. In general, tank mix partners should be added in the following order: products in water-soluble packaging, wettable powders or wettable granules or dry flowables, liquid flowables, liquids then emulsifiable concentrates. Allow each tank mix partner to become completely dispersed before adding the next product.

Spray Equipment Clean Out:

After spraying Carbine 50WG thoroughly clean the sprayer before using sprayer equipment for any other applications. In addition, users must take appropriate steps to ensure proper equipment clean out for any other products mixed with Carbine 50WG as required on the other product labels. Refer to the Environmental Hazards

statements regarding disposal of equipment washwaters.

Application Information

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers. Use the largest droplet size consistent with good pest control.

Thorough spray coverage of plant foliage is essential for optimum control.

Apply in sufficient water to ensure good coverage. Finished spray volumes should be increased under extreme pest populations or dense plant foliage.

Ground Application

Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets. Do not exceed 30 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles. Sprayers should be adjusted to position spray tips a minimum of 18 inches above the crop. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in higher application rates.

Aerial Application

Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets. Do not exceed 30 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles. Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets.

Chemigation Application

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system used for pesticide application to a public water system. Crop injury, lack of effectiveness or illegal residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment

manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. Do not apply when wind speed favors drift beyond the area intended for treatment. Carbine 50WG should be applied continuously for the duration of the water application. Carbine 50WG should be diluted in sufficient volume to insure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the target pest. Agitation generally is not required when suitable diluents are used. A diluents test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Using Water from Public Water Systems: DO NOT APPLY Carbine 50WG THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. A PUBLIC WATER SYSTEM means a system for the provision of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Carbine 50WG may be applied through irrigation systems, which may be supplied by a

public water system only if water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Limitations, Restrictions, and Exceptions

COTTON

Begin applications before populations begin to build or at economic thresholds according to local economic guidelines. The low rate can be used early season for low pest densities or when tank mixing with other products labeled for target insect control on cotton. Use the high rate for large pest populations, dense foliage, and longer residual. Rapidly growing cotton may need retreatment. Scout fields often and retreat as necessary to maintain pest populations below damaging levels.

Thorough spray coverage of plant foliage is essential for optimum control. Use a minimum of 5 gallons per acre by ground and 3 gallons per acre by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Do not apply more than 2.8 oz/ acre Carbine 50WG (0.089 lbs. ai/ acre) per application. Do not apply more than 8.4 oz/ acre Carbine 50WG (0.267 lbs. ai/ acre) per season. Do not apply more than 3 applications at the 2.8 oz/acre Carbine 50WG rate per season. Allow a minimum of 7 days between applications.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

30 days

Rates

[field rates 0](#)

[field rates 1](#)

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Restricted Entry Interval

12 hours

Timings

Before populations begin to build or at economic thresholds according to local economic guidelines.