



CARBINE[®]

50WG

INSECTICIDE

EPA Reg. No. 71512-9-279

EPA Est. No. 279-NY-1

Active Ingredient:	By Wt.
*Flonicamid	50.0%
Other Ingredients:	50.0%
TOTAL:	100.0%

*Contains 0.5 pounds active ingredient per pound of formulated product

KEEP OUT OF REACH OF CHILDREN
WARNING
AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
 (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in Eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If Swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If Inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on Skin:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Note to Physician: Treatment is controlled by removal of exposure followed by symptomatic and supportive care.	
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies, or pesticide concerns), you may also contact 1- 800-331-3148 twenty-four (24) hours per day, seven (7) days per week. For Information Regarding the Use of this Product Call 1-800-321-1FMC (1362). See other panels for additional precautionary statements.	

Net Contents: 3.5 lbs.

Manufactured for:



FMC Corporation
 2929 Walnut Street
 Philadelphia, PA 19104

PRECAUTIONARY STATEMENTS

Hazards to Humans (& Domestic Animals)

WARNING

Causes substantial but temporary eye injury. Harmful if swallowed or absorbed through the skin. Do not get on skin, in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Do not breathe dust or spray mist. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, protective eyewear and chemical-resistant gloves.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

Environmental Hazards

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted-entry interval (REI) and notification to workers (as applicable). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the **Restricted Entry Interval (REI)** of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, chemical-resistant gloves, and shoes plus socks.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage:

Keep this product in its tightly closed original container, when not in use. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals, and avoid excessive heat while in storage. Carefully open containers. After partial use, fold and roll back bags, clamp and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (800) 424-9300.

To confine spill: Cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container.

Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Offer for recycling, if available, or dispose of in a sanitary landfill or by other procedures allowed by State and Local authorities.

PRODUCT INFORMATION

CARBINE® 50WG Insecticide is a 50 percent water dispersible granular formulation of the insecticide flonicamid. It controls insects which may vector viruses and pathogens. Residual control of flonicamid has been shown to reduce disease transmission and symptoms, thereby increasing plant health. CARBINE 50WG Insecticide provides control of a variety of aphid and plant bug pests and suppression of some non-aphid pests in cotton, tuberous and corn vegetables, tree nuts, citrus and canola.

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 Guideline and/or time applications for scouting results. Thorough plant coverage is essential for good performance.

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

Resistance Management: For resistance-management, CARBINE 50WG Insecticide contains a Group 29 insecticide. Any insect population may contain individuals naturally resistant to CARBINE 50WG Insecticide and other Group 29 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed. To reduce the potential for developing insect resistance, rotate to an insecticide with a different mode of action. Monitor treated pest populations for resistance development. Read product label before applying any insecticide and follow label directions.

To delay insecticide resistance, take the following steps:

- Rotate the use of CARBINE 50WG Insecticide or other Group 29 insecticides within a growing season, or among growing seasons, with different groups that control the same pests. Avoid application of more than the maximum seasonal use rate or the total number of consecutive sprays of CARBINE 50WG Insecticide per season.

- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact FMC at www.fmc.com.

Use Restrictions

Do not use this product in home gardens

Crop Rotation Restrictions

Following application of CARBINE 50WG Insecticide, any crop listed on this label may be planted as a rotational crop. All other crops may be planted 30 days after the last application of CARBINE 50WG Insecticide.

Maximum Seasonal Use and Pre-Harvest Intervals

Crop	Maximum Seasonal Total (pounds active ingredient)	PHI Days
Cotton	0.263	30
Listed Tuberous and Corm Vegetables	0.263	7
Listed Tree Nuts	0.263	40
Listed Citrus	0.263	0
Rapeseed/Canola	0.263	7
Listed Sunflower Commodities	0.263	0

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 Insecticide spray mixtures overnight.

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

Tank Mixtures

CARBINE 50WG Insecticide can be 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 manufacturer's label recommendations for the companion product. CARBINE 50WG Insecticide 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 Insecticide 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 Insecticide, 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 Insecticide as required on the other product labels. Refer to the Disposal and 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 Insecticide should be applied continuously for the duration of the water application. CARBINE 50WG Insecticide 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 Insecticide THROUGH ANY IRRIGATION SYSTEM **PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM**. Public Water System means a system for the provision to the public 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 Insecticide 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 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.

Spray Drift Management

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. Where states have more stringent regulations, they must be observed.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS, MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

1. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.
2. Do not cultivate within 10 feet of the aquatic area so as to allow growth of a vegetative filter strip.
3. Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes; reservoirs, rivers, permanent streams, marshes or natural ponds, estuarine/marine habitats, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) applications are made.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory below.

Aerial Drift Reduction Advisory

(This section is advisory in nature and does not supersede the mandatory label requirements).

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Spray Droplet Size

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles - Use the minimum number of nozzles that provides uniform coverage.

Nozzle Orientation - For aerial application, orient nozzles so that the spray is released parallel to the air stream as this produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets.

Boom Length - For some aerial use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Aerial applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment - When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind - Drift potential is lowest between winds speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity - When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions - Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud, under low wind conditions, indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas - The pesticide should only be applied when the wind is blowing away from adjacent sensitive areas such as residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops.

Insect Spectra

The following tables list various insect species, which are either effectively controlled or suppressed¹ when appropriate application rates of CARBINE 50WG Insecticide are made at appropriate timings. See specific crop sections for recommendations on specific pests.

¹Suppression may be erratic control ranging from good to poor, or a consistent level of control below that generally considered commercially acceptable.

Aphid Pests

Common Name	Scientific Name
Apple Aphid	<i>Aphis pomi</i>
Black bean Aphid	<i>Aphis fabae</i>
Black Cherry Aphid	<i>Myzus cerasi</i>
Cabbage Aphid	<i>Brevicoryne brassicae</i>
Cotton/Melon Aphid	<i>Aphis gossypii</i>
Cowpea Aphid	<i>Aphis craccivora</i>
English Grain Aphid	<i>Sitobion avenae</i>
Green Peach Aphid	<i>Myzus persicae</i>
Greenbug	<i>Schizaphis graminum</i>
Hop Aphid	<i>Phorodon humuli</i>
Leaf Curl Plum Aphid	<i>Brachycaudis helichrysi</i>
Mealy Plum Aphid	<i>Hyalopterus pruni</i>
Foxglove Aphid	<i>Aulocorthum solani</i>
Pea Aphid	<i>Acyrtosiphon pisum</i>
Potato Aphid	<i>Macrosiphum euphorbiae</i>
Red Lettuce Aphid	<i>Uroleucon pseudambrosiae</i>
Rosy Apple Aphid	<i>Dysaphis plantaginea</i>
Spirea aphid	<i>Aphis spiraeicola</i>
Turnip aphid	<i>Lipaphis erysimi</i>
Wolly Apple Aphid	<i>Eriosoma lanigerum</i>
Red Lettuce Aphid	<i>Nasanovia ribis-nigri</i>
Spotted Alfalfa Aphid	<i>Therioaphis maculata</i>
Blue Alfalfa Aphid	<i>Acyrtosiphon kondoi</i>
Strawberry aphid	<i>Chaetosiphon fragaefolii</i>
Soybean Aphid	<i>Aphis glycines</i>
Black Pecan Aphid	<i>Melanocallis caryaefoliae</i>
Yellow Pecan Aphid	<i>Monelliopsis pecanis</i>
Blackmargined Aphid	<i>Monellia caryella</i>

Non-Aphid Insect Pests

Common Name	Scientific Name
Cotton Fleahopper	<i>Pseudatomoscelis seriatus</i>
Greenhouse Whitefly	<i>Trialeurodes vaporariorum</i>
Tarnished Plant Bug	<i>Lygus lineolaris</i>
Western Plant Bug	<i>Lygus hesperus</i>
Potato Psyllid	<i>Bactericera cockerelli</i>
Tomato Psyllid	<i>Bactericera cockerelli</i>
Asian Citrus Psyllid	<i>Diaphorina citri</i>

Rate Conversion Chart for CARBINE 50WG Insecticide

Ounces CARBINE 50WG Insecticide /A	Pounds CARBINE 50WG Insecticide /A	Pounds AI/A	Treated Acres/Pound CARBINE 50WG Insecticide
1.4	0.088	0.044	11.4
1.7	0.106	0.053	9.4
2.0	0.125	0.062	8.0
2.4	0.15	0.075	6.7
2.8	0.175	0.088	5.7

COTTON (30 DAY PHI)

Cottonseed; cultivars, varieties, and/or hybrids of these

Pests	Rate of Application		USE DIRECTIONS
	Ounces CARBINE 50WG Insecticide /Acre	Pounds Active Ingredient/Acre	
Plant Bugs and Fleahoppers	1.7 to 2.8	0.053 to 0.088	<ul style="list-style-type: none"> • 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.
Aphids	1.4 to 2.8	0.044 to 0.088	

SPRAY RECOMMENDATIONS

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.

RESTRICTIONS

Do not apply more than 2.8 oz/acre CARBINE 50WG Insecticide (0.088 lbs. ai/acre) per application.

Do not apply more than 8.4 oz/acre CARBINE 50WG Insecticide (0.263 lbs. ai/acre) per year.

Do not apply more than 3 applications at the 2.8 oz/acre CARBINE 50WG Insecticide rate per year.

Allow a minimum of 7 days between applications.

TUBEROUS AND CORM VEGETABLES (7 DAY PHI) INCLUDING:

Arracacha; Arrowroot; Chinese artichoke; Jerusalem artichoke; Edible canna; Casava (bitter and sweet); Chayote (root); Chufa; Dasheen; Ginger; Leren; Potato; Sweet potato; Tanier; Turmeric; Yam Bean; Yam (true).

Pests	Rate of Application		USE DIRECTIONS
	Ounces CARBINE 50WG Insecticide /Acre	Lbs. Active Ingredient/Acre	
Aphids, Plants Bugs and Potato Psyllid	2.0 to 2.8	0.062 to 0.088	<ul style="list-style-type: none"> • Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. • Use LOWER RATE for building populations and use HIGHER RATE for greater populations and/or dense foliage. • Rapidly growing plants may need retreatment. Scout fields often and retreat as necessary to maintain populations below damaging levels. • If identification of aphid species has not been confirmed, use HIGHER RATE. • CARBINE 50WG is recommended as a supplemental foliar control of Green Peach Aphid in long season potatoes following an at-plant program using systemic insecticides and for primary foliar control of Green Peach Aphid in short season potatoes. • Scout fields, before aphid flights begin, at intervals and in locations sufficient to provide representative information on population development. Consult local pest management guidelines for correct procedures. • Foliar application of CARBINE 50WG should begin when Green Peach aphid numbers reach 5 per 100 leaves, 1 winged aphid per plant or the observation of wingless aphids; consult local pest management guidelines for specific recommendations.
Greenhouse Whitefly	2.8	0.088	

SPRAY RECOMMENDATIONS

Thorough spray coverage of plant foliage is essential for optimum control. Apply in sufficient water to ensure good coverage; use a minimum of 10 gallons per acre when applied by ground, use a minimum of 3 gallons per acre by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage.

RESTRICTIONS

Do not apply more than 2.8 oz/acre CARBINE 50WG Insecticide (0.088 lbs. ai/acre) per application.

Do not apply more than 8.4 oz/ acre CARBINE 50WG Insecticide (0.263 lbs. ai/acre) per year.

Do not apply more than 3 applications at the 2.8 oz./acre CARBINE 50WG Insecticide rate per year.

Allow a minimum of 7 days between applications.

Tree Nuts (40 Day PHI)

Pecan

Pests	Rate of Application		USE DIRECTIONS
	Ounces CARBINE 50WG Insecticide /Acre	Lbs. Active Ingredient/Acre	
Aphids	2.0 to 2.8	0.062 to 0.088	<ul style="list-style-type: none"> • Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. • Use LOWER RATE for building populations and use HIGHER RATE for greater populations and/or dense foliage. • Scout trees often and retreat as necessary to maintain populations below damaging levels. • If identification of aphid species has not been confirmed, use HIGHER RATE.
Plant Bugs	2.8	0.088	<ul style="list-style-type: none"> • Apply when bugs first appear, before populations increase to damaging levels. • Application provides SUPPRESSION only. For control, apply in combination with other effective products labeled for use on these listed crops. • Scout trees often and retreat as necessary to maintain populations below damaging levels.

SPRAY RECOMMENDATIONS
Thorough spray coverage of plant foliage is essential for optimum control. Apply in sufficient water to ensure good coverage; use a minimum of 50 gallons per acre when applied by ground, preferably air-blast; use a minimum of 10 gallons per acre by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage.

RESTRICTIONS
Do not apply more than 2.8 oz/acre CARBINE 50WG Insecticide (0.088 lbs. ai/acre) per application.
Do not apply more than 8.4 oz/ acre CARBINE 50WG Insecticide (0.263 lbs. ai/acre) per year.
Do not apply more than 3 applications at the 2.8 oz./acre CARBINE 50WG Insecticide rate per year.
Allow a minimum of 7 days between applications.

CITRUS FRUIT GROUP (0 DAY PHI) INCLUDING:

Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliolate orange; uni fruit; cultivars, varieties, and/or hybrids of these

Pests	Rate of Application		USE DIRECTIONS
	Ounces CARBINE 50WG Insecticide /Acre	Lbs. Active Ingredient/Acre	
Asian Citrus Psyllid	2.8 to 5.7	0.088 – 0.178	<ul style="list-style-type: none"> • Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. • Use the LOWER RATE for building populations and use the HIGHER RATE for greater populations and/or dense foliage. • Scout trees often and retreat as necessary to maintain populations below damaging levels. • For optimum performance, include an adjuvant. Only use adjuvants known to be safe on citrus crops.
Aphids	2.8	0.088	<ul style="list-style-type: none"> • Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. • Scout trees often and retreat as necessary to maintain populations below damaging levels.

SPRAY RECOMMENDATIONS
Thorough spray coverage of plant foliage is essential for optimum control. Apply in sufficient water to ensure good coverage; use a minimum of 50 gallons per acre when applied by ground, preferably air-blast; use a minimum of 10 gallons per acre by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Spray adjuvants may improve coverage.

RESTRICTIONS
Do not apply more than 3 applications at the 2.8 oz./acre CARBINE 50WG Insecticide rate per year.
Do not apply more than 1 application at the 5.7 oz./acre CARBINE 50WG Insecticide rate per year.
Do not apply more than a total of 8.4 oz/ acre CARBINE 50WG Insecticide (0.263 lbs. ai/acre) per year.
Allow a minimum of 7 days between applications.

RAPSEED, CANOLA VARIETIES ONLY (7 DAY PHI) INCLUDING:

Borage; crambe.; cuphea; echium; flax seed; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; rapeseed; sesame; sweet rocket; cultivars, varieties, and/or hybrids of these

Pests	Rate of Application		USE DIRECTIONS
	Ounces CARBINE 50WG Insecticide /Acre	Lbs. Active Ingredient/Acre	
Aphids and Plant Bugs (<i>Lygus</i> spp.) Cabbage Aphid Green Peach Aphid Turnip Aphid	2.8	0.088	<ul style="list-style-type: none"> Apply when Aphids or Lygus first appear in the field and before populations reach high levels. CARBINE 50WG Insecticide will stop Aphid and Lygus feeding rapidly but it may take several days to see a reduction in Aphid or Lygus numbers. Reapply when new insects are detected. Two sequential applications of CARBINE 50WG Insecticide result in better Aphid and Lygus control than a single application.

SPRAY RECOMMENDATIONS

Thorough spray coverage of plant foliage is essential for optimum control. Apply in sufficient water to ensure good coverage; use a minimum of 10 gallons per acre when applied by ground; use a minimum of 3 gallons per acre by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Spray adjuvants may improve coverage but do not use binder or sticker-type surfactants. Only use adjuvants known to be safe on canola.

RESTRICTIONS

Do not make more than two applications of CARBINE 50WG Insecticide without rotating to an insecticide with a different mode of action.
 Do not apply more than 2.8 oz./ per acre CARBINE 50WG Insecticide (0.088 lbs. ai per acre) per application.
 Do not apply more than 8.4 oz./ per acre CARBINE 50WG Insecticide (0.263 lbs. ai per acre) per year.
 Do not apply more than 3 applications per year.
 Allow a minimum of 7 days between applications.

SUNFLOWER SUBGROUP 20B (0 DAY PHI)

Calendula; castor oil plant; chinese tallowtree; euphorbia; evening primrose; jojoba; niger seed; rose hip; safflower; stokes aster; sunflower; tallowwood; tea oil plant; vernonia; cultivars, varieties, and/or hybrids of these.

Pests	Rate of Application		USE DIRECTIONS
	Ounces CARBINE 50WG Insecticide /Acre	Lbs. Active Ingredient/Acre	
Aphids and Plant Bugs	2.8	0.088	<ul style="list-style-type: none"> Apply when insects first appear in the field and before populations reach high levels. CARBINE 50WG Insecticide will stop feeding rapidly but it may take several days to see a reduction in insect numbers. Reapply when new insects are detected. Two sequential applications of CARBINE 50WG Insecticide result in better control than a single application.

SPRAY RECOMMENDATIONS

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.

RESTRICTIONS

Do not make more than two applications of CARBINE 50WG Insecticide without rotating to an insecticide with a different mode of action.
 Do not apply more than 2.8 oz/acre CARBINE 50WG Insecticide (0.088 lbs. ai/acre) per application.
 Do not apply more than 8.4 oz/acre CARBINE 50WG Insecticide (0.263 lbs. ai/acre) per year.
 Do not apply more than 3 applications at the 2.8 oz/acre CARBINE 50WG Insecticide rate per year.
 Allow a minimum of 7 days between applications.

Dealers Must Sell in Original Packages Only
Conditions of Sale and Limitation of Warranty and Liability:

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC or Seller. All such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or FMC, and , to the extent consistent with applicable law, Buyer assumes the risk of any such use.

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