Beleaf®

50 SG Insecticide

EPA Reg. No. 71512-10-279  EPA Est. 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

CAUTION

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

Net Contents: 1.5 lbs.

Manufactured for:

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia PA 19103

FIRST AID

If Swallowed: 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 on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

If in Eyes: 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 for treatment advice.

If Inhaled: Remove 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.

Note to Physician: Treatment is otherwise 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. You may also contact 1-800-331-3148 for emergency medical treatment information.

See other panels for additional precautionary statements.

PRECAUTIONARY STATEMENTS

Hazards to Humans (& Domestic Animals)

CAUTION
Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Do not get on skin, in eyes or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)
Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, and waterproof gloves.

Follow manufacturer’s instructions for cleaning/maintaining PPE. If there are 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 [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:
Remove clothing/PPE 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

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 limitations 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, waterproof gloves, and shoes plus socks.

STORAGE AND DISPOSAL
Do not contaminate water, food, or feed by storage and disposal
Pesticide Storage
Keep out of reach of children and animals. Store in original containers only. Store in a dry place and avoid excess heat. 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 FMC (800) 331-3148.

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 rinse in application equipment or a mix tank or store rinseate 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 incineration, or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION
Beleaf™ 50SG is a 50 percent soluble granular formulation of the insecticide flonicamid. Beleaf 50SG provides control of a variety of aphid and plant bug pests and suppression of some non-aphid pests in Brassica (cole) leafy vegetables, cucurbit vegetables, fruiting vegetables (except cucurbits), legumes, legume and corn vegetables, root vegetables (except sugar beets), pome fruit stone fruit, tree nuts, greenhouse cucumbers and tomatoes, low growing berries, canola, alfalfa and clover grown for seed, and mint.

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. Beleaf 50SG is a member of the pyridinecarboxamide class of chemical. Beleaf 50SG controls target pests by contact and by dispersion of all the tank mix products. However, the physical compatibility of Beleaf 50SG 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 Beleaf 50SG thoroughly clean the sprayer before using spray equipment for any other applications. In addition, users must make appropriate steps to ensure proper equipment clean out for any other products mixed with Beleaf 50SG as required on the other product labels. Refer to the Environmental Hazards statements regarding disposal of equipment washwaters.

Applicator Information
Applicators 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 optimal 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 posi-

Crop Rotation Restrictions
Following application of Beleaf 50SG, 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 Beleaf 50SG.

Maximum Seasonal Use and Pre-Harvest Intervals

<table>
<thead>
<tr>
<th>Crop</th>
<th>Maximum Seasonal Total (pounds active ingredient/Acre)</th>
<th>PHI Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listed Brassica (Cole) Leafy Vegetables</td>
<td>0.267</td>
<td>0</td>
</tr>
<tr>
<td>Listed Cucurbit Vegetables</td>
<td>0.267</td>
<td>0</td>
</tr>
<tr>
<td>Listed Fruiting Vegetables (except Cucurbits)</td>
<td>0.267</td>
<td>0</td>
</tr>
<tr>
<td>Hop</td>
<td>0.267</td>
<td>10</td>
</tr>
<tr>
<td>Listed Leafy Vegetables (except Brassica)</td>
<td>0.267</td>
<td>0</td>
</tr>
<tr>
<td>Listed Lush and Corn Vegetables</td>
<td>0.267</td>
<td>7</td>
</tr>
<tr>
<td>Listed Root Vegetables (except Sugar Beets)</td>
<td>0.267</td>
<td>3</td>
</tr>
<tr>
<td>Listed Pome Fruit</td>
<td>0.267</td>
<td>21</td>
</tr>
<tr>
<td>Listed Stone Fruit</td>
<td>0.267</td>
<td>14</td>
</tr>
<tr>
<td>Listed Tree Nuts</td>
<td>0.267</td>
<td>40</td>
</tr>
<tr>
<td>Green House Cucumbers</td>
<td>0.267</td>
<td>0</td>
</tr>
<tr>
<td>Green House Tomatoes</td>
<td>0.267</td>
<td>0</td>
</tr>
<tr>
<td>Rapseed/Canola</td>
<td>0.267</td>
<td>7</td>
</tr>
<tr>
<td>Low Growing Berries</td>
<td>0.267</td>
<td>0</td>
</tr>
<tr>
<td>Strawberry</td>
<td>0.267</td>
<td>0</td>
</tr>
<tr>
<td>Mint</td>
<td>0.267</td>
<td>7</td>
</tr>
<tr>
<td>Alfalfa Seed</td>
<td>0.175</td>
<td>14</td>
</tr>
<tr>
<td>Clover Seed</td>
<td>0.175</td>
<td>14</td>
</tr>
</tbody>
</table>

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 Beleaf 50SG spray mixtures overnight.

Do not use liquid fertilizer as a carrier for Beleaf 50SG.

Tank Mixtures
Beleaf 50SG 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 manufacturer’s label recommendations for the companion product. Beleaf 50SG 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 Beleaf 50SG with tank mix partners should be evaluated using a jar test before use.

Agricultural use of this product is prohibited on food or fiber crops. Do not contaminate water, food or feed by storage and disposal.

Agricultural use of this product is prohibited on food or fiber crops.

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

Do not use this product in home gardens.
tion 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 spacing 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. Use low-volume, low-velocity 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, drop, flow, side, reel, traveler, big gun, solid set, drip (treele) (greenhouse cucumbers and tomatoes only) or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system, including greenhouse systems, used for other applications with an irrigation system that may result in undesirable residues or less than desirable control. Failure to achieve a uniform dilution throughout the time of application over the area to be treated. Use the appropriate amount of water to be applied continuously for the duration of the water application. Belleaf SG should be applied by a system interlock. Do not apply when wind speed is less than 3 mph due to variable wind direction and high inversion potential.

**Using Water from Public Water Systems:**
DO NOT APPLY Beleaf 50SG 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 serves an average of at least 25 individuals daily at least 60 days out of the year. Belleaf 50SG may be applied through irrigation systems, which may be supplied by a public water system or if water from a public water system or a well is discharged into a reservoir 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, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume, ULV, application 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 as larger 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 provide 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, suit up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both low relative humidity and high temperature.

**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 effective in controlling or suppress when appropriate application rates of Beleaf 50SG are made at appropriate timings. See specific crop sections for recommendations on specific pests.
### Aphid Pests

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Aphid</td>
<td>Aphis pomi</td>
</tr>
<tr>
<td>Black Bean Aphid</td>
<td>Aphis fabae</td>
</tr>
<tr>
<td>Black Cherry aphid</td>
<td>Myzus cerasi</td>
</tr>
<tr>
<td>Cabbage aphid</td>
<td>Brevicoryne brassicae</td>
</tr>
<tr>
<td>Cotton / Melon aphid</td>
<td>Aphis gossypii</td>
</tr>
<tr>
<td>Cowpea Aphid</td>
<td>Aphis craccivora</td>
</tr>
<tr>
<td>English Grain aphid</td>
<td>Sitobion avenae</td>
</tr>
<tr>
<td>Green Peach aphid</td>
<td>Myzus persicae</td>
</tr>
<tr>
<td>Greenbug</td>
<td>Schizaphis graminum</td>
</tr>
<tr>
<td>Hop Aphid</td>
<td>Phorodon humuli</td>
</tr>
<tr>
<td>Leaf Curl Plum aphid</td>
<td>Brachycaudis hellichrysi</td>
</tr>
<tr>
<td>Mealy Plum aphid</td>
<td>Hyalopterus pruni</td>
</tr>
<tr>
<td>Foxglove Aphid</td>
<td>Aulacorthum solani</td>
</tr>
<tr>
<td>Pea Aphid</td>
<td>Acyrthosiphon pisum</td>
</tr>
<tr>
<td>Potato aphid</td>
<td>Macrosiphum euphorbiae</td>
</tr>
<tr>
<td>Red Lettuce Aphid</td>
<td>Uroleucon pseudemбриosae</td>
</tr>
<tr>
<td>Rosy apple aphid</td>
<td>Dysaphis plantaginea</td>
</tr>
<tr>
<td>Spirea aphid</td>
<td>Aphis spiraceola</td>
</tr>
<tr>
<td>Turnip aphid</td>
<td>Lipaphis erysimi</td>
</tr>
<tr>
<td>Woolly Apple Aphid</td>
<td>Eriosoma langergerum</td>
</tr>
<tr>
<td>Red Lettuce Aphid</td>
<td>Nasonovia ribis-nigril</td>
</tr>
</tbody>
</table>

### Non-Aphid Insect Pests

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cotton Fleahopper</td>
<td>Pseudatomoscells seriatus</td>
</tr>
<tr>
<td>Greenhouse Whitefly</td>
<td>Tutaevodes vaporarorium</td>
</tr>
<tr>
<td>Tarnished Plant Bug</td>
<td>Lygus lineolaris</td>
</tr>
<tr>
<td>Western Plant Bug</td>
<td>Lygus hesperus</td>
</tr>
</tbody>
</table>

### Rate Conversion Chart for Beleaf 50SG

<table>
<thead>
<tr>
<th>Ounces Beleaf 50SG/Acre</th>
<th>Pounds Beleaf 50SG/A</th>
<th>Pounds AI/A</th>
<th>Treated Acres / Pound Beleaf 50SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td>0.088</td>
<td>0.044</td>
<td>11.4</td>
</tr>
<tr>
<td>1.7</td>
<td>0.106</td>
<td>0.053</td>
<td>9.4</td>
</tr>
<tr>
<td>2.0</td>
<td>0.125</td>
<td>0.062</td>
<td>8.0</td>
</tr>
<tr>
<td>2.4</td>
<td>0.15</td>
<td>0.075</td>
<td>6.7</td>
</tr>
<tr>
<td>2.8</td>
<td>0.175</td>
<td>0.089</td>
<td>5.7</td>
</tr>
</tbody>
</table>

### BRASSICA (COLE) LEAFY VEGETABLES (0 DAY PHI) INCLUDING:

Broccoli, Chinese broccoli, Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage, Cauliflower, Cavao broccoli, Collards, Kale, Kohirabi Mizuna, Mustard greens, Mustard spinach, Rape greens and Turnip greens.

#### PESTS

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS 1, 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphis and Plant Bugs</td>
<td>2.0 to 2.8</td>
<td>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.</td>
</tr>
<tr>
<td>Greenhouse Whitley</td>
<td>2.8</td>
<td>Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application provides SUPPRESSION only. For control, apply in combination with other effective products labeled for use on these listed crops. Scout fields often and retreat as necessary to maintain populations below damaging levels.</td>
</tr>
</tbody>
</table>

1 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. Do not apply more than 2.8 oz/acre Beleaf 50SG (0.089 lbs. ai/acre) per application; do not apply more than 8.4 oz/acre Beleaf 50SG (0.267 lbs. ai/acre) per season. Do not apply more than 3 applications at the 2.8 oz/acre Beleaf 50SG rate per season. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGHER RATE.

2 Beleaf 50SG reduces the numbers of aphids which may carry viruses, plant diseases or plant pathogens.

### Cucurbit Vegetables CROP GROUP 9 (0 day PHI) INCLUDING:

Chayote (fruit); Chinese waxgourd (Chinese preserving melon); Citron melon; Cucumber; Gherkin; Gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); Momordica spp (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskemelon, hybrids and/or cultivars of Cucumis melo (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); Pumpkin; Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash; Watermelon (includes hybrids and/or varieties of Citrullus lanatus).

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS 1, 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphis and Plant Bugs</td>
<td>2.0 to 2.8</td>
<td>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.</td>
</tr>
<tr>
<td>Greenhouse Whitley</td>
<td>2.8</td>
<td>Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application provides SUPPRESSION only. For control, apply in combination with other effective products labeled for use on these listed crops. Scout fields often and retreat as necessary to maintain populations below damaging levels.</td>
</tr>
</tbody>
</table>
**FRUITING VEGETABLES CROP GROUP 8-10 (0 DAY PHI) INCLUDING:**

- African eggplant
- bush tomato
- bell pepper
- cocona
- currant tomato
- eggplant
- garden huckleberry
- goji berry
- groundcherry
- naranjilla
- okra
- pea eggplant
- pepino
- nonbell pepper
- roselle
- scarlet eggplant
- sunberry
- tomatillo
- tomato
- tree tomato
- cultivars, varieties, and/or hybrids of these.

**LEAFY VEGETABLES (EXCEPT BRASSICA) (0 DAY PHI) INCLUDING:**

- Amaranth (leafy amaranth, Chinese spinach, tamplea)
- Arugula (rouquette)
- Cardoon
- Celery
- Chinese Celery
- Celtuce
- Cervil
- Chrysanthemum (edible leaved and garland)
- Corn salad
- Cress (garden and upland)
- Dandelion
- Dock (sorrel)
- Endive (escarole)
- Florence fennel
- Lettuce (head and leaf)
- Orach
- Parsley
- Purslane
- Radicchio (red chicory)
- Rhubarb
- Spinach
- Spinach (New Zealand)
- Swiss chard
- Vine spinach (Malabar and Indian)

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ounces Beleaf 50SG/Acre</td>
<td>Lbs. Active Ingredient/Acre</td>
</tr>
<tr>
<td>Aphids and Plant Bugs</td>
<td>2.8 to 4.28</td>
<td>0.089 to 0.133</td>
</tr>
<tr>
<td>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 fields often and retreat as necessary to maintain populations below damaging levels.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ounces Beleaf 50SG/Acre</td>
<td>Lbs. Active Ingredient/Acre</td>
</tr>
<tr>
<td>Greenhouse Whitefly</td>
<td>2.8 to 4.28</td>
<td>0.089 to 0.133</td>
</tr>
<tr>
<td>Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application provides SUPPRESSION only. For control, apply in combination with other effective products labeled for use on these listed crops. Scout fields often and retreat as necessary to maintain populations below damaging levels.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HOP (10 DAY PHI)**

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ounces Beleaf 50SG/Acre</td>
<td>Lbs. Active Ingredient/Acre</td>
</tr>
<tr>
<td>Hop Aphis</td>
<td>1.7 to 2.8</td>
<td>0.053 to 0.089</td>
</tr>
<tr>
<td>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 fields often and retreat as necessary to maintain populations below damaging levels. Rapidly growing plants may need retreatment.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

<sup>1</sup>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. Do not apply more than 2.8 oz/acre Beleaf 50SG (0.089 lbs. ai/acre) per application; do not apply more than 8.4 oz/acre Beleaf 50SG (0.267 lbs. ai/acre) per season. Do not apply more than 3 applications at the 2.8 oz/acre Beleaf 50SG rate per season. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGHER RATE.

<sup>2</sup>Beleaf 50SG reduces the numbers of aphids which may carry viruses, plant diseases or plant pathogens.
### 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; Tantier; Turmeric; Yam Bean; Yam (true).

### PESTS

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS¹²³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphids and Plant Bugs</td>
<td>2.0 to 2.8</td>
<td>0.082 to 0.089 Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. Use LOWER RATE for building populations; 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.</td>
</tr>
<tr>
<td>Greenhouse Whitefly</td>
<td>2.8</td>
<td>0.089 Apply when adult whiteflies first appear. Do not allow populations to increase unchecked before making first application. Application provides SUPPRESSION only. For control, apply in combination with other effective products labeled for use on these listed crops. Scout fields often and retreat as necessary to maintain populations below damaging levels.</td>
</tr>
</tbody>
</table>

¹Through 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. Do not apply more than 2.8 oz/acre Beleaf 50SG (0.089 lbs. ai/acre) per application; do not apply more than 0.062 to 0.089 Beleaf 50SG (0.017 lbs. ai/acre) per season. Do not apply more than 3 applications at the 2.8 oz/acre Beleaf 50SG rate per season. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGHER RATE.

²Beleaf 50SG is recommended as a supplemental foliar control of Green Peach Aphid in long season potatoes following an on 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 Beleaf 50SG 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.

³Beleaf 50SG reduces the numbers of aphids which may carry viruses, plant diseases or plant pathogens.

### ROOT VEGETABLES (EXCEPT SUGAR BEETS) (3 DAY PHI) INCLUDING:

- Beet, garden; Burdock, edible; Carrot; Celeriac; Chervil, turnip-rooted; Chicory; Ginseng; Horseradish; Parsley, turnip-rooted; Parsnip; Radish; Radish, oriental; Rutabaga; Salsify: Salsify, black; Salsify, Spanish; Skirret; Turnip.

### PESTS

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS¹²³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphids and Plant Bugs</td>
<td>2.0 to 2.8</td>
<td>0.082 to 0.089 Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. Use LOWER RATE for building populations; 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.</td>
</tr>
<tr>
<td>Greenhouse Whitefly</td>
<td>2.8</td>
<td>0.089 Apply when adult whiteflies first appear. Do not allow populations to increase unchecked before making first application. Application provides SUPPRESSION only. For control, apply in combination with other effective products labeled for use on these listed crops. Scout fields often and retreat as necessary to maintain populations below damaging levels.</td>
</tr>
</tbody>
</table>

¹Through 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. Do not apply more than 2.8 oz/acre Beleaf 50SG (0.089 lbs. ai/acre) per application; do not apply more than 0.062 to 0.089 Beleaf 50SG (0.017 lbs. ai/acre) per season. Do not apply more than 3 applications at the 2.8 oz/acre Beleaf 50SG rate per season. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGHER RATE.

Pome Fruit CROP GROUP 11-10 (21 day PHI) INCLUDING:

- Apple; azarole; crabapple; loquat; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties, and/or hybrids of these.

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphids and Plant Bugs</td>
<td>2.0 to 2.8</td>
<td>0.082 to 0.089 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 during green tip through pink bloom and retreat as necessary to maintain populations below damaging levels.</td>
</tr>
</tbody>
</table>
**STONE FRUIT CROP GROUP 12-12 (14 DAY PHI)**

Including:

- Apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; Jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these.

**TREE NUTS (40 DAY PHI) INCLUDING:**

- African nut-tree; Almond; Beechnut; Brazil nut; Brazilian pine; Bunya; Bur oak; Butternut; Cajou nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Coquito nut; Dika nut; Ginkgo; Guiana chestnut; Hazelnut; Heartnut; Hickory nut; Japanese horse-chestnut; Macadamia nut; Mongongo nut; Monkey-pot; Monkey puzzle nut; Okari nut; Pachira nut; Peach palm nut; Pecan; Pequi; Pili nut; Pine nut; Pistachio; Sapucaia nut; Tropical almond; Walnut, black; Walnut, English; Yellowhorn

---

**GREENHOUSE CUCUMBERS – FOLIAR APPLICATION (0 DAY PHI)**

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ounces Beleaf 50SG/Acre</td>
<td>Lbs. Active Ingredient/Acre</td>
</tr>
<tr>
<td>Aphids</td>
<td>2.8 – 4.28 oz per acre or 0.065 – 0.1 oz per 1000 sq ft or 1.85 – 2.85 gm per 1000 sq ft</td>
<td>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. Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making the first application. Application provides SUPPRESSION only. Apply in combination with other effective products for control. Check plants often and retreat as necessary to maintain populations below damaging levels.</td>
</tr>
<tr>
<td>Greenhouse Whitefly</td>
<td>4.28 oz per acre or 0.1 oz per 1000 sq ft or 2.85 gm per 1000 sq ft</td>
<td>Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making the first application. Application provides SUPPRESSION only. Apply in combination with other effective products for control. Check plants often and retreat as necessary to maintain populations below damaging levels.</td>
</tr>
</tbody>
</table>

---

**GREENHOUSE CUCUMBERS – APPLICATION TO SOIL OR GROWTH MEDIA (0 DAY PHI)**

<table>
<thead>
<tr>
<th>PESTS</th>
<th>Rate of Application</th>
<th>COMMENTS¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphids</td>
<td>4.28 oz / acre or 2.8 gm / 1000 sq ft or 12.5 gm / 1000 plants (based on planting density of 1 plant per 4.5 sq ft or 2.4 plants per sq meter)</td>
<td>Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. Apply using a drench by hand, drip irrigation, or with motorized calibrated irrigation equipment to the base of the plants. See the Chemigation Section of this label for additional information.</td>
</tr>
<tr>
<td>Greenhouse Whitefly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Use a minimum of 25 gallons per 1000 plants but, do not exceed the holding capacity of soil or growth media. Do not apply more than 4.28 oz per acre (0.44 oz per 1000 plants based on 1 plant per 4.5 sq ft or 9712 plants per acre) Beleaf 50 SG per application. Do not make more than 2 applications at 4.28 oz per acre (0.1 oz per 1000 sq ft) Beleaf 50 SG per crop season. Allow a minimum of 7 days between applications. Beleaf 50 SG reduces the numbers of aphids that may carry viruses, plant diseases or plant pathogens.

² Beleaf 50 SG reduces the numbers of aphids that may carry viruses, plant diseases or plant pathogens.

³ Many varieties have been tested for tolerance to Beleaf and show good crop safety. To assure the greatest crop safety under a wide range of conditions, treating a few plants before applying to the whole greenhouse is recommended.
LOW GROWING BERRY (0 DAY PHI) INCLUDING: Bearberry; bilberry; blueberry; loowbush; cloudberry; cranberry; lingonberry; muntreis; partridgeberry; strawberry; cultivars, varieties, and/or hybrids of these

GREENHOUSE TOMATOES – FOLIAR APPLICATION (0 DAY PHI)

PESTS | Rate of Application | COMMENTS
--- | --- | ---
Aphids | 0.065 – 0.1 oz per 1000 sq ft or 1.85 – 2.85 gm per 1000 sq ft | 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. Check plants often and retreat as necessary to maintain populations below damaging levels.

PESTS | Rate of Application | COMMENTS
--- | --- | ---
Aphids | 2.8 – 4.28 oz per acre or 0.056 – 0.1 oz per 1000 sq ft or 1.85 – 2.85 gm per 1000 sq ft | 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. Check plants often and retreat as necessary to maintain populations below damaging levels.

RAPESEED (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 | COMMENTS
--- | --- | ---
Aphids and Plant Bugs (Lygus spp.) | 2.8 0.089 | Apply when Aphids or Lygus first appear in the field and before populations reach high levels. Beleaf will stop Aphid and Lygus feeding rapidly but it may take several days to see a reduction in Aphid and Lygus numbers. Reapply when new insects are detected. Two sequential applications of Beleaf result in better Aphid and Lygus control than a single application. Do not make more than two applications of Beleaf without rotating to an insecticide with a different mode of action.

ALFALFA & CLOVER GROWN FOR SEED IN THE FOLLOWING STATES: AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, and WY (14 DAY PHI FOR SEED)

PESTS | Rate of Application | COMMENTS
--- | --- | ---
Aphids and Plant Bugs | 2.8 0.089 | Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. Scout fields often and retreat as necessary to maintain populations below damaging levels. Rapidly growing plants may need retreatment.

PESTS | Rate of Application | COMMENTS
--- | --- | ---
Aphids and Plant Bugs | 2.8 0.089 | Begin applications before populations begin to build and before damage is evident, according to local pest management guidelines. Scout fields often and retreat as necessary to maintain populations below damaging levels. Rapidly growing plants may need retreatment.

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 50 gallons per acre when applied by ground; use a minimum of 100 gallons per acre when applied by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage but do not exceed the point of runoff. Do not apply more than 8.4 oz/acre Beleaf™ 50 SG (0.267 lbs. ai per acre) per application; do not apply more than 3 applications per year. Allow a minimum of 7 days between applications.

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 100 gallons per acre when applied by ground; use a minimum of 1000 sq ft when applied by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage but do not exceed the point of runoff. Do not apply more than 2.8 oz/acre Beleaf™ 50 SG (0.089 lbs. ai per acre) per application; do not apply more than 2 applications at 4.28 oz per acre (0.1 oz per 1000 sq ft) Beleaf 50 SG per crop season. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGHER RATE.

Beleaf 50 SG reduces the numbers of aphids that may carry viruses, plant diseases or plant pathogens.

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 100 gallons per acre when applied by ground; use a minimum of 1000 sq ft when applied by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage but do not exceed the point of runoff. Do not apply more than 2.8 oz/acre Beleaf™ 50 SG (0.089 lbs. ai per acre) per application; do not apply more than 2 applications at 4.28 oz per acre (0.1 oz per 1000 sq ft) Beleaf 50 SG per crop season. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGHER RATE.

Beleaf 50 SG reduces the numbers of aphids that may carry viruses, plant diseases or plant pathogens.

**Restrictions:**
Forage and hay from alfalfa and clover grown for seed may be utilized after application of Beleaf 50 SG Insecticide only as indicated below.

**Alfalfa grown for seed –** Do not allow foraging of fields within 14 days of the last application. Do not harvest for hay within 62 days of the last application.

**Clover grown for seed –** Do not harvest for hay or allow foraging of fields within 34 days of the last application.
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 or FMC or Seller. All such
risks shall be assumed by Buyer and User, and Buyer and User agree to
hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conform to the chemical descrip-
tion 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 MER-
CHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE,
NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH
RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PROD-
UCT. Any warranties, express or implied, having been made are inap-
plicable 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 buyer
assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be
liable for any incidental, consequential or special damages resulting from
the use or handling of this product. TO THE EXTENT CONSISTENT WITH
APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR
BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR
ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PROD-
UCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be
amended by any oral or written agreement.

FMC – is a trademark of FMC Corporation
Beleaf™ is a trademark of Ishihara Sangyo Kaisha, Ltd.