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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 23 2008

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Myron Bliss
ISK Biosciences
7470 Auburn Road Suite A
Concord, Ohio 44077

Dear Dr. Bliss:

Subject: Beleaf 50SG Insecticide
EPA Reg. No. 71512-10
Submission dated 6/15/06

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is conditionally acceptable provided you submit the data listed in attachment A and make the label changes listed below. One copy of the finished labeling must be submitted prior to releasing the product for shipment.

Revise the heading EPA Est. to read EPA Est. No.

Revise the third sentence of the Precautionary Statements to read as follows:
Do not get on skin, in eyes or on clothing.

Move the paragraph on resistance to the section on General Instructions. Review and revise this paragraph in accordance with PR Notice 2001-5.

Revise container labeling in accordance with PR Notice 2007-4.

In accordance with the residue chemistry review dated 1/18/07, revise "water dispersible granular" to read "soluble granular."

Revise the first sentence of the tank mix directions in accordance with PR Notice 82-1 as follows:
This product 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.

Delete the blank rows in the "non-aphid insect pests" table.

Delete the columns entitled kg ai/hectare and Treated HA/ Kg Bleaf 50 SG in the Rate Conversion Chart.

Add to the rate conversion chart the conversions for 1.4 ounces Bleaf 50 SG/A, as it included on the application rate tables.

In the comments column in several of the application rate tables, revise the sentence about prophylactic application to read as follows:
Early prophylactic applications may reduce of the spread of aphids which may carry viruses.

In the Brassica (Cole) Leafy Vegetables table, comments section, delete footnote "3" which has no corresponding footnote and delete the reference to Mustang Max as that label has not been submitted for review.

In accordance with the environmental fate and effects review dated 11/26/07, revise the following references to maximum annual application rate as follows:

> The footnotes to the ingredient tables must be revised to read: "Do not exceed 0.267 lbs active ingredient per acre per year."
>
> The title and the header to the second column in the table on Maximum Season Use and Pre-Harvest Intervals must be revised to clarify that the maximum annual total pounds active ingredient per acre is 0.267 lbs active ingredient per acre.

Except for cotton and hop, each item in the first column of the Maximum Use and Preharvest intervals table must be modified to read "listed" as in "listed brassica vegetables" to prevent misuse.

Review the truncated footnote to the application rate table for "Root vegetables (except sugar beets)." It appears to repeat the footnotes to the immediately preceding tuberous and corm vegetables (which includes potatoes) table, which is acceptable with the following correction: The "Root vegetables (except sugar beets)" table does not include potatoes. Delete potatoes from the footnote to the "Root vegetables (except sugar beets)" table.

Revise the mixing and loading instructions to clarify mandatory and advisory statements in accordance with PR Notice 2000-5 and chapter 3. of the Label Review manual.

Revise the last sentence of item 4. in the spray equipment clean out section to refer the user also to the disposal statements.

Revise the warranty statements in accordance with Agency guidance at the following

3/23

website: http://www.epa.gov/pesticides/regulating/labels/warranty.pdf.

If you have questions, please call Ann Sibold at 703 305-6502.

Sincerely,

Ann Sibold

for Richard Gebken
Product Manager 10
Insecticide Branch
Registration Division (7505P)

Attachment A.

Data Required as a Condition of Registration

Guideline Number	Guideline Title	Due Date
850.3030	Honey Bee Toxicity of Residues on Foliage	May 1, 2009

5/23

ISK BIOSCIENCES

GROUP	9C	INSECTICIDE

Beleaf™ 50SG Insecticide

ACCEPTED
with COMMENTS
In EPA Letter Dated:
APR 23 2008
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 71512-10

EPA Reg. No. 71512-10 EPA Est.

Active Ingredient:	**By Wt.**
*Flonicamid	50.0%
Inert Ingredients	50.0%
Total	**100.0%**

*Contains 0.5 pounds active ingredient per pound of formulated product
U.S. Patent No. 5360806

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.)

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- 888-484-7546 for emergency medical treatment information.

For Emergency Assistance Call: ISK (888) 484-7546.
See other panels for additional precautionary statements.

Net Contents: 5 lbs.
ISK Biosciences Corporation
7470 Auburn Road, Suite A
Concord, Ohio 44077

6/23

PRECAUTIONARY STATEMENTS

Hazards to Humans (& Domestic Animals)

CAUTION

Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes or 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.

7/23

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.

Resistance. Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

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, 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 cool, 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 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 Completely empty container into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

GENERAL INSTRUCTIONS

Beleaf™ 50SG is a 50 percent water dispersible granular formulation of the insecticide flonicamid. Beleaf™ 50SG provides control for a variety of aphid pests and suppression for a variety of non-aphid pests in Brassica (cole) leafy vegetables, cotton, cucurbit vegetables, fruiting vegetables and leafy vegetables (excluding Brassica), hop, tuberous and corm vegetables, root vegetables (excluding sugar beets), pome fruit and stone fruit.

The rate of application is dependent upon the insect species present, the level of insect pressure, and the length of residual control desired. Initiate applications when insect populations reach economic thresholds. Refer to local Cooperative Extension Guideline and/or time applications to scouting results. Lower rates may be used for building populations and/or when shorter residual control is desired. Use the higher rates when populations have built beyond the economic threshold, when a dense canopy is present and/or when longer residual control is desired.

Use Restrictions

Do not use this product in greenhouses.

Do not use this product in home gardens.

Crop Rotation Restrictions

Following application of Beleaf™ 50SG, 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 Beleaf™ 50SG.

Maximum Seasonal Use and Pre-Harvest Intervals

Crop	Maximum Seasonal Total (pounds active ingredient)	PHI Days
Brassica Vegetables	0.267	0
Cotton	0.267	30
Cucurbit Vegetables	0.267	0
Fruiting Vegetables	0.267	0
Hop	0.267	10
Leafy Vegetables	0.267	0
Tuberous Vegetables	0.267	7
Root Vegetables	0.267	3
Pome Fruit	0.267	21
Stone Fruit	0.267	14

Mixing and Loading Instructions

Ensure the spray system is clean and free of residues from previous applications. Fill the spray tank 1/2 full with clean water. Ensure the agitation system is 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.

Avoid the overnight storage of Beleaf™ 50SG spray mixtures.

Premixing Beleaf™ 50SG solutions in nurse tanks is not recommended. Prepare no more spray mixture than is needed for the immediate application.

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

Tank Mixtures

Beleaf™ 50SG may be tank mixed with products approved for use on the crops listed on this label. 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 provide 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.

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.

9/23

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.

Adjuvant Use Requirements and Precautions

Beleaf 50SG may not be used with spray adjuvants.

Spray Equipment Clean Out:

After spraying Beleaf™ 50SG and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure. In addition, users must take appropriate steps to ensure proper equipment clean out for any other products mixed with Beleaf™ 50SG as required on the other product labels.

1. Drain sprayer tank, hoses, and spray boom. Use a high pressure wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then thoroughly flush sprayer hoses, boom and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate tank cleaner (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines. 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

10/27

when wind speed favors drift beyond the area intended for treatment Beleaf™ 50SG should be applied continuously for the duration of the water application. Beleaf™ 50SG 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 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 regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Beleaf™ 50SG 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.

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 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.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they must be observed.

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 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, 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 suppressed[1] when appropriate application rates of Beleaf™ 50SG are made at appropriate timings. See specific crop sections for recommendations on specific pests.

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

Aphids

Common Name	Scientific Name
Black Cherry aphid	*Myzus cerasi*
Cabbage aphid	*Brevicoryne brassicae*
Cotton / Melon aphid	*Aphis gossypii*
English Grain aphid	*Macrosiphum avenae*
Green Peach aphid	*Myzus persicae*
Greenbug	*Toxoptera graminum*
Leafcurling Plum aphid	*Anuraphis helichrysi*
Mealy Plum aphid	*Hyalopterus pruni*
Pea Aphid	*Acyrthosiphon pisum*
Potato aphid	*Macrosiphum euphorbiae*
Rosy apple aphid	*Dysaphis plataginae*
Spirea aphid	*Aphis spiraecola*
Turnip aphid	*Lipaphis erysimi*

Non-Aphid Insect Pests

Common Name	Scientific Name
Greenhouse Whitefly	*Trialeurodes vaporariorum*
Tarnished Plant Bug	*Lygus lineolaris*
Western Plant Bug	*Lygus hesperus*

Rate Conversion Chart for Beleaf™ 50SG

Ounces Beleaf 50SG/A	Pounds Beleaf 50SG / A	Pounds AI / A	Treated Acres / Pound Beleaf 50SG	Kilogram AI/ Hectare	Treated Ha / Kg Beleaf 50SG
1.2	0.08	0.036	13.3	0.04	12.5
1.7	0.11	0.054	9.4	0.06	8.3
2.0	0.125	0.063	8.0	0.07	7.1
2.3	0.14	0.071	7.0	0.08	6.3
2.6	0.16	0.080	6.1	0.09	5.6
2.8	0.18	0.089	5.7	0.10	5.0

Brassica (Cole) Leafy Vegetables (0 day PHI) including:

Broccoli (*Brassica oleracea* var. *botrytis*); **Chinese broccoli** (*Brassica alboglabra*); **Broccoli raab (rapini)** (*Brassica campestris*); **Brussels sprouts** (*Brassica oleracea* var. *gemmifera*); **Cabbage** (*Brassica oleracea*); **Chinese cabbage (bok choy)** (*Brassica chinensis*); **Chinese cabbage (napa)** (*Brassica pekinensis*); **Chinese mustard cabbage** (*Brassica campestris*); **Cauliflower** (*Brassica oleracea* var. *botrytis*); **Cavalo broccoli** (*Brassica oleracea* var. *botrytis*); **Collards; Kale** (Brassica oleracea var. acephala); **Kohlrabi** (*Brassica oleracea* var. *gongylodes*); **Mizuna** (*Brassica rapa*); **Mustard greens** (*Brassica juncea*); **Mustard spinach** (*Brassica rapa*); **Rape greens** (*Brassica napus*) **and Turnip greens** (*Brassica rapa* var. *rapa*) .

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
Cabbage Aphid (*Brevicoryne brassicae*)	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	Begin applications as populations begin to build or at economic thresholds according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Rapidly growing plants may need retreatment. Scout fields often and retreat as necessary to maintain populations below damaging levels. Early, prophylactic applications may assist in the reduction of the spread of virus by viruliferous aphids.[2]
Green Peach Aphid (*Myzus persicae*)	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	
Melon Aphid (*Aphis gossypii*)	1.2 to 1.4 (0.036 to 0.044)	1.7 to 2.0 (0.054 to 0.063)	
Potato Aphid (*Macrosiphum euphorbiae*)	1.2 to 1.4 (0.036 to 0.044)	1.7 to 2.0 (0.054 to 0.063)	
Turnip Aphid (*Lipaphis erysimi*)	1.2 to 1.4 (0.036 to 0.044)	1.7 to 2.0 (0.054 to 0.063)	
Western Plant Bug (*Lygus hesperus*)	1.2 to 1.7 (0.036 to 0.054)	2.6 to 2.8 (0.08 to 0.089)	Apply the HIGH RATE, at economic threshold, for SUPPRESSION[3] only. Apply the LOW RATE only in combination with other effective products (such as Mustang Max 0.8 EC Insecticide) for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.
Greenhouse Whitefly (*Trialeurodes vaporariorum*)	Low Rate not recommended.	2.8 (0.089)	Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application of the HIGH RATE will provide SUPPRESSION only. Apply HIGH RATE in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.

[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 acres by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; do not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

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

Cotton (30 day PHI):

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
Cotton Aphid (*Aphis gossypii*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	Begin applications as populations begin to build or at economic thresholds according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Rapidly growing cotton may need retreatment. Scout fields often and retreat as necessary to maintain populations below damaging levels.
Tarnished Plant Bug (*Lygus lineolaris)* Western Plant Bug (*Lygus hesperus)*	1.2 to 1.7 (0.036 to 0.054)	2.6 to 2.8 (0.080 to 0.089)	Apply the HIGH RATE, at economic threshold, for SUPPRESSION only. Apply the LOW RATE only in combination with *other effective products for control.* Scout fields often and retreat as necessary to maintain populations below damaging levels.

[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 acres by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Banded applications should reduce the total treated area proportionally. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; do not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

Cucurbit Vegetables (0 day PHI) including:

Chayote (fruit) (*Sechium edule*); Chinese waxgourd (Chinese preserving melon) (*Bernincasa hispida*); Citron melon (*Citrullus lanatus var. citroides*); Cucumber (*Cucumis sativus*); Gherkin (*Cucumis anguria*); Gourd, edible (*Lagenaria* spp.) (includes *hyotan, cucuzza*); (*Luffa* spp.) (includes *hechima*, Chinese okra); (*Momordica* spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskmelon (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 (*Cucurbita* spp.); Squash, summer (*Cucurbita pepo var. melopepo*) (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Squash, winter (*Cucurbita maxima; C. moshata*) (includes butternut squash, calabaza, hubbard squash; (*C. mixta; C. pepo*) includes acorn squash, spaghetti squash); Watermelon (includes hybrids and/or varieties of *Citrullus* spp.).

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days *Residual Control*	**HIGH RATE** Up to 14 Days *Residual Control*	
Green Peach Aphid (*Myzus persicae*)	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	Begin applications as populations begin to build or at economic thresholds according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Rapidly growing plants may need retreatment. Scout fields often and retreat as necessary to maintain populations below damaging levels.
Melon aphid (*Aphis gossypii)*	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Pea Aphid (*Acyrthosiphon pisum*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	Early, prophylactic applications may assist in the reduction of the spread of virus by viruliferous aphids.[2]
Greenhouse Whitefly (*Trialeurodes vaporariorum*)	Low Rate not recommended.	2.8 (0.089)	Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application of the HIGH RATE will provide SUPPRESSION only. Apply HIGH RATE in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.

[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 acres by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Banded applications should reduce the total treated area proportionally. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; do not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

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

Fruiting Vegetables (except cucurbits) (0 day PHI) including:

Eggplant; Groundcherry (*Physalis* spp.); Okra; Pepino; Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); Tomatillo; Tomato.

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
Green Peach Aphid (*Myzus persicae*)	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	Begin applications as populations begin to build or at economic thresholds according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Scout fields often and retreat as necessary to maintain populations below damaging levels. Rapidly growing plants may need retreatment. Early, prophylactic applications may assist in the reduction of the spread of virus by viruliferous aphids.[2]
Melon Aphid (*Aphis gossypii*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Potato Aphid (*Macrosiphum euphorbiae*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Turnip Aphid (*Lipaphis erysimi*)	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	
Western Plant Bug (*Lygus hesperus*)	1.2 to 1.7 (0.036 to 0.054)	2.6 to 2.8 (0.08 to 0.089)	Apply the HIGH RATE, at economic threshold, for SUPPRESSION only. Apply the LOW RATE only in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.
Greenhouse Whitefly (*Trialeurodes vaporariorum*)	Low Rate not recommended.	2.8 (0.089)	Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application of the HIGH RATE will provide SUPPRESSION only. Apply HIGH RATE in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.

[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 acres by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Banded applications should reduce the total treated area proportionally. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; do not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

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

Hop (10 day PHI):

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
Hop Aphid (*Phorodon humuli)*	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	Begin applications as populations begin to build or at economic thresholds according to local pest *management guidelines.* Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Scout fields often and retreat as necessary to maintain populations below damaging levels. Rapidly growing plants may need retreatment.

[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 acres by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Banded applications should reduce the total treated area proportionally. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; do not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

Leafy Vegetables (except *Brassica*) (0 day PHI) including:

Amaranth (leafy amaranth, Chinese spinach, tampala); **Arugula** (Roquette); **Cardoon; Celery; Celery, Chinese; Celtuce; Chervil; Chrysanthemum, edible- leaved and garland; Corn salad; Cress, garden; Cress, upland** (yellow rocket, winter cress); **Dandelion; Dock** (sorrel); **Endive** (escarole); **Fennel, Florence** (finochio); **Lettuce, head and leaf; Orach; Parsley; Purslane, garden; Purslane, winter; Radicchio** (red chicory); **Rhubarb; Spinach** (including New Zealand and vine, Malabar spinach, Indian spinach); **Swiss chard.**

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
Cabbage Aphid (*Brevicoryne brassicae)*	1.7 to 2.3 (0.053 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	Begin applications as populations begin to build or at economic thresholds according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Rapidly growing plants may need retreatment. Scout fields often and retreat as necessary to maintain populations below damaging levels. Early, prophylactic applications may assist in the reduction of the spread of virus by viruliferous aphids.[2]
Green Peach Aphid (*Myzus persicae*)	1.7 to 2.3 (0.053 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	
Melon Aphid (*Aphis gossypii)*	1.2 to 1.4 (0.036 to 0.044	1.7 to 2.0 (0.053 to 0.063)	
Potato Aphid (*Macrosiphum euphorbiae)*	1.2 to 1.4 (0.036 to 0.044	1.7 to 2.0 (0.053 to 0.063)	
Western Plant Bug (*Lygus hesperus)*	1.2 to 1.7 (0.036 to 0.054)	2.6 to 2.8 (0.08 to 0.089)	Apply the HIGH RATE, at economic threshold, for SUPPRESSION only. Apply the LOW RATE *only* in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.
Greenhouse Whitefly (*Trialeurodes vaporariorum*)	Low Rate not recommended.	2.8 (0.089)	Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application of the HIGH RATE will provide SUPPRESSION only. Apply HIGH RATE in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.

[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 acres by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; do not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

[2] 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; Tanier; Turmeric; Yam Bean; Yam** (true).

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
English Grain Aphid (*Macrosiphum avenae*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	Begin applications as populations begin to build or at economic thresholds according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Rapidly growing plants may need retreatment. Scout fields often and retreat as necessary to maintain populations below damaging levels. Early, prophylactic applications may assist in the reduction of the spread of virus by viruliferous aphids. [3]
Green Peach Aphid[2] (*Myzus persicae*)	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	
Greenbug *(Toxoptera graminum)*	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Potato Aphid (*Macrosiphum euphorbiae)*	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.053 to 0.071)	
Turnip Aphid (*Lipaphis erysimi*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.053 to 0.071)	
Tarnished Plant Bug (*Lygus lineolaris)*	1.2 to1.7 (0.036 to 0.054)	2.6 to 2.8 (0.08 TO 0.089)	Apply the HIGH RATE, at economic threshold, for SUPPRESSION only. Apply the LOW RATE only in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.
Greenhouse Whitefly (*Trialeurodes vaporariorum*)	Low Rate not recommended.	2.8 (0.089)	Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application of the HIGH RATE will provide SUPPRESSION only. Apply HIGH RATE in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.

[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 acres by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; do not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

[2] Beleaf™ SG 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 Beleaf™ 50SG should begin when Green Peach aphid number reach 5 per 100 leaves, 1 winged aphid per plant or the observation of wingless aphids; consult local pest management guidelines for specific recommendations.

[3] Beleaf™ 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	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
English Grain Aphid (*Macrosiphum avenae*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	Begin applications as populations begin to build or at economic thresholds according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Rapidly growing plants may need retreatment. Scout fields often and retreat as necessary to maintain populations below damaging levels. Early, prophylactic applications may assist in the reduction of the spread of virus by viruliferous aphids.[3]
Green Peach Aphid[2] (*Myzus persicae*)	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	
Greenbug (*Toxoptera graminum*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Potato Aphid (*Macrosiphum euphorbiae*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Turnip Aphid (*Lipaphis erysimi*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Tarnished Plant Bug (*Lygus lineolaris*)	1.2 to1.7 (0.036 to 0.054)	2.6 to 2.8 (0.08 TO 0.089)	Apply the HIGH RATE, at economic threshold, for SUPPRESSION only. Apply the LOW RATE only in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.
Greenhouse Whitefly (*Trialeurodes poraríorum*)	Low Rate not recommended.	2.8 (0.089)	Apply when adult whiteflies first appear. Do not allow population to increase unchecked before making first application. Application of the HIGH RATE will provide SUPPRESSION only. Apply HIGH RATE in combination with other effective products for control. Scout fields often and retreat as necessary to maintain populations below damaging levels.

[1]Thorough spray coverage of plant foliage is essential for optimum control. Apply in sufficient water to ensure good coverage; use a minimum 10 gallons per acre when applied by ground; use a minimum of 3 gallons per acres by air. Finished spray volumes should be increased under treme pest populations or dense plant foliage. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. ow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

[2] Beleaf™ 50SG is recommended as a supplemental foliar control of Green Peach Aphid in long season potatoes following an at-plant ogram using systemic insecticides and for primary foliar control of Green Peach Aphid in short season potatoes. Scout fields, before aphid hts begin, at intervals and in locations sufficient to provide representative information on population development. Consult local pest anagement guidelines for correct procedures. Foliar application of Beleaf™ 50SG should begin when Green Peach aphid number reach 5 per 0 leaves, 1 winged aphid per plant or the observation of wingless aphids; consult local pest management guidelines for specific commendations.

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

Pome Fruit (21 day PHI) including:

Apple (*Malus domestica*); **Crabapple** (*Malus* spp.); **Loquat** (*Eriobotrya japonica*); **Mayhaw** (*Crataegus aestivalis, C. opaca,* and *C. rufula*); **Pear** (*Pyrus communis*); **Pear, oriental** (*Pyrus pyrifolia*); **Quince** (*Cydonia oblonga*).

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
Spirea Aphid (*Aphis spiraecola*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	Begin applications as populations begin to build or at economic thresholds but before damage is evident, according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Scout trees often during green tip through pink growth stages and post-bloom and retreat as necessary to maintain populations below damaging levels.
Rosy Apple Aphid (*Dysaphis plantaginae*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Tarnished Plant Bug (*Lygus lineolaris*)	1.2 to 1.7 (0.036 to 0.054)	2.6 to 2.8 (0.08 TO 0.089)	Apply the HIGH RATE, at economic threshold, for SUPPRESSION only. Apply the LOW RATE only in combination with other effective products for control. Scout trees often and retreat as necessary to maintain populations below damaging levels.

[1]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 acres by air. Finished spray volumes should be increased under extreme pest populations or dense plant foliage. Do not apply more than 2.8 oz./ per acre Beleaf™ 50SG (0.089 lbs. ai per acre) per application; do not apply more than 8.4 oz./ per acre Beleaf™ 50SG (0.267 lbs. ai per acre) per season. Do not apply more than 3 applications per year. Allow a minimum of 7 days between applications. If identification of aphid species has not been confirmed, use HIGH RATE.

Stone Fruit (14 day PHI) including:

Apricot (*Prunus armeniaca*); **Cherry, sweet** (*Prunus avium*); **Cherry, tart** (*Prunus cerasus*); **Nectarine** (*Prunus persica*); **Peach** (*Prunus persica*); **Plum** (*Prunus domestica, Prunus* spp.); **Plum, Chickasaw** (*Prunus angustifolia*); **PlumDamson** (*Prunus domestica* spp. *insititia*); **Plum, Japanese** (*Prunus salicina*); **Plumcot** (*Prunus. armeniaca X P. domestica*); **Prune (fresh)** (*Prunus domestica, Prunus* spp.).

PESTS	Rate of Application Oz. Beleaf™ 50SG / Acre (lbs. AI/Acre)		COMMENTS[1]
	LOW RATE Up to 7 Days Residual Control	**HIGH RATE** Up to 14 Days Residual Control	
Green Peach Aphid (*Myzus persicae*)	1.7 to 2.3 (0.054 to 0.071)	2.3 to 2.8 (0.071 to 0.089)	Begin applications as populations begin to build or at economic thresholds according to local pest management guidelines. Use LOW RATE for building populations and/ or shorter residual; use HIGH RATE for greater populations, dense foliage and/or longer residual. Scout trees often and retreat as necessary to maintain populations below damaging levels.
Mealy Plum Aphid (*Hyalopterus pruni*)	1.2 to 1.7 (0.054 to 0.071)	1.7 to 2.3 (0.071 to 0.089)	
Black Cherry aphid (*Myzus cerasi*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Leafcurling Plum aphid (*Anuraphis helichrysi*)	1.2 to 1.7 (0.036 to 0.054)	1.7 to 2.3 (0.054 to 0.071)	
Tarnished Plant Bug (*Lygus lineolaris*)	1.2 to 1.7 (0.036 to 0.054)	2.6 to 2.8 (0.08 to 0.089)	Apply the HIGH RATE, at economic threshold, for SUPPRESSION only. Apply the LOW RATE only in combination with other effective products for control. Scout trees often and retreat as necessary to maintain populations below damaging levels.

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