

2217-935

03/04/2010

1/21



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505C)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:

2217-935

Date of Issuance:

MAR - 4 2010

Term of Issuance:

Conditional

Name of Pesticide Product:

Sagacity 20 SG

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

PBI/Gordon Corporation
1217 West 12th Street
P.O. Box 014090
Kansas City, MO 64101-0090

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) and (B) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.
2. Make the following label changes before you release the product for shipment:
 - a. Add the phrase "EPA Registration Number 2217-135".
 - b. Provide Establishment Number on the front panel of the master label.
 - c. On page 1, add the following text to the beginning of the master label statement: "This master label contains two sub-labels, one for all uses, and one for turf use only. The two sub-labels represent the entire master label....."
 - d. On page 2, add the following text to the statement under CAUTION: "Use in accordance with applicable state and federal regulations."

Signature of Approving Official:

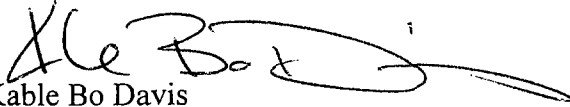
Date:

MAR - 4 2010

- e. On page 3, add a heading "Physical or Chemical Hazards" with the following text under this heading: "Do not use, pour, spill or store near heat or open flame."
 - f. Under Product Information for both sub-labels (pages 6 and 16), rephrase all sentences with *can be* to more definitive statements. For example, rephrase *Sagacity 20 SG can be used for...* to read as *Use Sagacity 20 SG for....*
 - g. On page 14, add the sub-heading of Application Rate to 2.7 lbs per acre under paragraphs 8.5 and 8.6. Also provide application rate in terms of pounds of a.i. per acre for both.
 - h. On page 14, under the pest list for Trunk Sprays in Trees and Large Shrubs, add the exclusion of Asian Longhorned to Roundheaded Borers.
3. Submit two (2) copies of the final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(a). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records. If you have any questions, please contact Rita Kumar at (703) 308-8291 or kumar.rita@epa.gov.

Sincerely,

 Kable Bo Davis
 Acting Product Manager 7
 Insecticide Rodenticide Branch
 Registration Division (7505P)

Enclosure

3/21

SAGACITY(TM) 20 SG

EPA Reg. No. 2217-YYY

Two sublabels represent the entire master label of Sagacity(TM) 20 SG. Please refer to the appropriate section of the labeling as shown as follows:

Section
Language Common to All Sublabels
Sublabel 1
Sublabel 2
Appendix
Document Control Information

ACCEPTED
With COMMENTS
In EPA Letter Dated:

MAR - 4 2010

Under the Federal Insecticide, Fungicide
and Rodenticide Act, As amended, for the
pesticide Registered under EPA Reg. No:

2217-935

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

4/21

Language Common to All Sublabels

SAGACITY(TM) 20 SG

EPA Reg. No. 2217-YYY

For foliar and systemic insect control in ornamental plants, vegetable transplants in enclosed structures, and turfgrass. For Greenhouse, Nursery, Interior Plantscape and Outdoor Landscape Use Only

ACTIVE INGREDIENT:	
Dinotefuran, [N-methyl-N'-nitro-N''-(tetrahydro-3-furanyl)methyl]guanidine]	20%
OTHER INGREDIENTS:	80%
TOTAL	100%

KEEP OUT OF REACH OF CHILDREN

CAUTION

STOP! READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Do not allow contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid	
If on skin or on clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for further treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Have person sip a glass of water if able to swallow. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for further treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call poison control center or doctor for further treatment advice.
HOT LINE 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 1-877-800-5556 for emergency medical treatment advice.	

Environmental Hazards

This pesticide is toxic to shrimp. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not dispose equipment washwaters or rinsate into a natural drain or water body.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Dinotefuran and its degradate, MNG have the properties and characteristics associated with chemicals detected in ground water. The high water solubility of dinotefuran, and its degradate, MNG, coupled with its very high mobility, and resistance to biodegradation indicates that this compound has a strong potential to leach to the subsurface under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination. Periodic monitoring of shallow groundwater in the use area is recommended.

Spray Drift Advisory

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crop thereof rendered for sale, use or consumption.

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, greenhouses and handlers of agricultural insecticides. 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) and restricted-entry interval. 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.

EXCEPTION: If product is drenched or soil-injected, workers may enter the area at any time if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not allow others to enter treated areas until sprays have dried.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep pesticide in original container. Store in a cool dry place.

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

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants only that the chemical composition of this product conforms to the ingredient statement given on the label, and that the product is reasonably suited for the labeled use when applied according to the Directions for Use.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE EXPRESSLY

DISCLAIMED. This limited warranty does not extend to the use of the product inconsistent with label instructions, warnings or cautions, or to use of the product under abnormal conditions such as drought, excessive rainfall, tornadoes, hurricanes, etc. These factors are beyond the control of the manufacturer or the seller. Any damages arising from a breach of the manufacturer's warranty shall be limited to direct damages, and shall not include indirect or consequential damages such as loss of profits or values, except as otherwise provided by law.

The terms of this Limited Warranty and Disclaimer cannot be varied by any written or verbal statements or agreements. No employee or agent of the seller is authorized to vary or exceed the terms of this Limited Warranty and Disclaimer in any manner.

SUBLABEL 1

All Uses

1. Product Information

Applications of Sagacity 20 SG in residential areas may be made by commercially licensed applicators.

Application to Turfgrass:

Sagacity 20 SG can be used for the control of soil inhabiting pests of turfgrass such as Masked Chafers, European Chafer, Green June Beetle, May or June Beetle, Japanese Beetle, Oriental Beetle, Billbugs, Annual Bluegrass Weevil, Black Turfgrass Ataenius and Mole Crickets. Sagacity 20 SG can also be used for the suppression of cutworms and chinchbugs in turfgrass areas.

Sagacity 20 SG can be used as directed on outdoor residential, recreational and commercial turfgrass in sites such as home lawns, commercial lawns, multi-family residential and apartment complexes, grounds or lawns around business and office complexes, shopping centers, airports, military and other institutions, cemeteries, golf courses, playgrounds, parks, athletic fields and sod farms.

Target timing of Sagacity 20 SG applications at or just prior to or during egg laying of the target pests. The need for an application can be based on historical and/or physical monitoring of the site, current season adult trapping, previous experience or other methods. Optimum control will be achieved when applications are made prior to or at egg hatch of the target pests followed by sufficient irrigation or rainfall to move the active ingredient through the turf thatch layer. Consult your State Extension Service for information regarding specific application timing.

Do not apply when the target site is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.

Application to Ornamental plants:

Sagacity 20 SG can be applied as a foliar spray, a broadcast spray, a soil drench, and soil injection for insect control in ornamental plants in greenhouses, nurseries, outdoor landscapes and interior plantscapes.

Sagacity 20 SG is a systemic product and will be taken up by the root system and translocated upward throughout the plant. When applied as a foliar spray, the product offers translaminar and locally systemic control of foliar pests.

When applied to the soil, Sagacity 20 SG will be translocated more quickly in herbaceous plants than in woody shrubs and trees. Speed of insect control will range from as little as one day for small herbaceous plants in containers, to several weeks in large trees in growing in the landscape.

For outdoor and landscape ornamentals, broadcast applications cannot exceed a total of 2.7 lb of product [0.54 lb active ingredient] per acre per year.

2. Resistance Management

Sagacity 20 SG contains a Group 4A insecticide. Insect biotypes with acquired resistance to Group 4A may eventually dominate the insect population if Group 4A insecticides are used repeatedly in the same crop or in successive years as the primary method of control for a targeted species. This may result in partial or total loss of control of those species by Sagacity 20 SG or other Group 4A insecticides.

To delay the development of insecticide resistance in greenhouse, nursery and interiorscape use sites, strongly consider the following guidelines:

- Do not apply Sagacity 20 SG or other Group 4A insecticides to consecutive generations of the same insect pest species.
- Do not drench soil media with Sagacity 20 SG or other Group 4A insecticides more than one time per crop cycle or three months, whichever is shorter.
- Do not make more than two foliar or broadcast sprays of Sagacity 20 SG or other Group 4A insecticides to a single crop during a two-month period.
- Do not make more than one soil drench and one foliar or broadcast spray with Sagacity 20 SG or other Group 4A insecticides during a two-month period.
- Base insecticide use on a comprehensive IPM program.
- Monitor treated insect populations for loss of field efficacy.
- Contact your local extension specialist, certified crop advisors, and/or manufacturers for insecticide resistance management and/or IPM guidelines for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact PBI/Gordon Corporation [1-877-800-5556 or www.company.com]

3. Mixing Instructions

Sagacity 20 SG Alone: Add half of the required amount of water to the mix tank. With the agitator running, add the desired amount of Sagacity 20 SG to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after Sagacity 20 SG has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

Sagacity 20 SG + Tank Mixtures: Add half of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, add tank mix partners in this order: products packaged in water soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, emulsifiable concentrates, and surfactants/adjuvants. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

NOTE: When using Sagacity 20 SG in tank mixtures, add all products in water soluble packaging to the tank before any other tank mix partner, including Sagacity 20 SG. Allow the water soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Sagacity 20 SG in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. Do not exceed label dosage rate, and follow the most restrictive label precautions and limitations. Do not mix this product with any product that prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

Compatibility:

IMPORTANT The safety of all potential tank mixes has not been tested on all crops. Before applying any tank mixture not specifically listed on this label, confirm the safety to the target crop.

Sagacity 20 SG is compatible with most commonly used pesticides, crop oils, adjuvants, and nutritional sprays. However, since it is not possible to test all possible mixtures, pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixtures with Sagacity 20 SG. To determine the physical compatibility of Sagacity 20 SG with other products, use a jar test, as described below:

Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for additional required ingredients to the spray tank.

4. Application Procedures and Spray Equipment

Ground Application: Select spray nozzles that will provide accurate and uniform spray deposition. Use spray nozzles that provide medium-sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State Extension Service specialists.

Apply Sagacity 20 SG using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Do not apply under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Applications to turfgrass: Apply Sagacity 20 SG through conventional spray equipment in a minimum of 1 gallon of finished spray per 1000 sq.ft. Ensure adequate distribution in the treated area using accurately calibrated equipment normally used for application of turfgrass insecticides. Use equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly. Prevent skips by using marker dyes or foam aids.

Applications to ornamental plants: Sagacity 20 SG can be applied using many different types of application equipment. Apply in sufficient water to ensure good coverage of ornamental plants. When making applications to plants with hard to wet foliage such as holly or pine, the product may be tank mixed with a surfactant. If concentrate or mist type spray equipment is used, apply the same amount of product on the sprayed area as would be used in a dilute solution. To assure optimum effectiveness, the product must be placed where the growing portion of the target plant can absorb the active ingredient. Applications can be made to foliage or as a soil drench.

Restrictions

- Do not graze treated areas or use clippings from treated areas for feed or forage.
- Prevent runoff or puddling of irrigation water following application.
- Keep children and pets off treated areas until spray has dried.
- Do not apply to areas that are water logged or saturated, or frozen, which will not allow penetration into the root zone of the plant.

Minimizing Spray Drift

As with all crop protection products, it is important to minimize off-target movement. Do not allow spray to drift onto adjacent land, crops, or aquatic areas. To minimize spray drift:

1. Make applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 10 mph. Do not apply when wind gusts approach 10 mph.
2. Risk of exposure to sensitive aquatic areas can be reduced by not applying when wind direction is toward the aquatic area.
3. Do not cultivate or plant crops within 25 feet of the aquatic area as to allow growth of a vegetative filter strip.
4. Do not make applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with increased height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
5. Use the largest droplet size consistent with good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by not using excessive spray boom pressure.
6. Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage. Don not apply more than 10 ft above the crop canopy.

11/21

7. For aerial applications, mount spray boom on the aircraft so as to minimize drift caused by wing tip vortices. Use minimum practical boom length and do not use boom that exceeds 75% of wing span or rotor diameter.

5. Turfgrass

Crop	Pest	Product Rate	Remarks
Turfgrasses Residential Recreational Commercial	Mole cricket Southern mole cricket Tawny mole cricket	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	Make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, tank mix with a curative insecticide
	White grub larvae such as: Annual bluegrass weevil Asiatic garden beetle Billbug Black Turfgrass ataenius European chafer Green June beetle Japanese beetle May/June beetle Northern masked chafer Oriental beetle Southern masked chafer	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	For optimum control of grubs, billbugs, and annual bluegrass weevil, make application prior to or during egg hatch of the target pest.
	Cutworms Chinchbug Sod webworm	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	For suppression of chinchbugs, make application prior to hatching of the first instar nymphs.
	European Crane fly	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	
Important Notes: <ul style="list-style-type: none"> • Apply in sufficient water to ensure thorough coverage of target area. Use a minimum of 50 gallons finished spray per acre. • Consult your local State Extension Service or State Extension Turfgrass Specialists for more specific information on timing of insecticide applications. • For optimal control, apply irrigation if rainfall does not occur within 24 hours after application to ensure movement of the active ingredient through the thatch. • Do not apply more than a total of 2.7 lb of Sagacity 20 SG (0.54 lb a.i.) per acre of turf per year. 			

6. Ornamental Plants

Foliar or broadcast spray application: For foliar insect control on ornamental plants in nurseries, greenhouses, interior plantscapes, lath and shadehouses, and outdoor landscapes (commercial, industrial, recreational and residential).

Ornamental plants including			
Shrubs Bedding Plants Flowering Plants Foliage Plants	Groundcovers Evergreens Ornamental Trees	Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines	Not for use on house plants grown inside private residences.

Ornamental pests			
Adelgids including Hemlock Woolly, Balsam Woolly Aphids (suppression) including Balsam, Crepe Myrtle, Green Peach,	Leaf beetles including Viburnum Leafhoppers including Glassy-Winged Sharpshooter, Potato Leafminers including	Psyllids including Asian Citrus Root Weevils (adults) including Black Vine, Diaprepes Sawflies (larvae)	Thrips including Chilli, Gynaikothrips uzeli, Western Flower (Suppression) Whiteflies including Giant, Greenhouse,

Ornamental pests			
Melon Japanese beetles (adults) Lacebugs including Azalea, Cotoneaster, Hawthorne, Rhododendron	Serpentine Mealybugs including Citrus, Long-Tailed, Madeira, Obscure, Phormium, Pink Hibiscus	Scales (Armored and Soft) including Cryptomeria, Cycad Aulacaspis, Elongate Hemlock, Euonymus, Florida Red, Florida Wax, Tea	Silverleaf/Sweetpotato (B and Q Biotypes)

Application Rate:

Foliar Spray: 0.25 to 0.5 lb per 100 gal [4 to 8 oz per 100 gallons] [0.05 to 0.1 lb ai per 100 gal] **OR** 8 to 16 oz per acre [0.2 to 0.4 oz per 1,000 sq.ft.] [0.1 to 0.2 lb a.i./A]

For Treatment of Small Areas: 0.5 to 1.0 tsp per gallon

Remarks: For optimal control, make first application just before pest populations reach an economic threshold. If necessary, make a second application after 14 to 21 days.

Tank mixing with a surfactant may improve control of pests such as whitefly, mealybug and scale. Confirm plant safety of tank mix in small area before using on a commercial scale.

100 gal of spray mix will treat 20,000 sq.ft. of area when using a typical high volume sprayer. If using a low volume sprayer, adjust concentration to apply the same amount of product per unit area.

1 level teaspoon contains 2.4 grams and 1 cup (8 fl oz) contains 4.0 oz of Sagacity 20 SG.

Do not apply more than 2.7 lbs (0.54 lb a.i.) per acre of nursery or landscape per year To delay the development of resistance: Do not apply Sagacity 20 SG or other Group 4A insecticides to consecutive generations of the same insect species without switching to a different mode of action. Do not make more than two sprays of Sagacity 20 SG or other Group 4A insecticides to a single crop during a two-month period. Refer to "Resistance Management" section of label for further guidelines.

7. Vegetable Transplants

Foliar or broadcast spray application: For foliar insect control on vegetable transplants grown in enclosed structures.

Crop	Pest	Product Rate
Cucurbits (Transplants only) Cantaloupe, Cucumber, Melons, Squash	Aphids Leafminers Mealybugs Thrips (suppression)	3.5 to 7.0 oz per 100 gal OR 7 to 14 oz per acre [0.16 to 0.32 oz per 1,000 sq.ft.]
Fruiting Vegetables Eggplant, Peppers, Tomato, Head and Stem <i>Brassica</i> (Broccoli, Brussel Sprouts, Cabbage, Cauliflower, Kohlrabi)	Whiteflies including Silverleaf/Sweetpotato (B and Q Biotypes)	[0.09 to 0.18 lb a.i. per acre]
Leafy Vegetables (Transplants only) (Excluding <i>Brassica</i> spp.)	Aphids Leafminers Mealybugs Thrips (suppression) Whiteflies including Silverleaf/Sweetpotato (B and Q Biotypes)	3.5 to 5.5 oz per 100 gal OR 7 to 11 oz per acre [0.16 to 0.25 oz per 1,000 sq.ft.] [0.09 to 0.134 lb a.i. per acre]

Do not make more than one application per crop.

Apply only to cucurbits and *Brassica* spp. being grown as transplants and before transplants are sold. .
100 gal of spray mix will treat 20,000 sq.ft. of area when using a typical high volume sprayer. If using a low volume sprayer, adjust concentration to apply the same amount of product per unit area.

Apply only to leafy vegetables being grown as transplants and before transplants are sold 100 gals. of spray mix will treat 20,000 sq.ft. of area when using a typical high volume sprayer. If using a low volume sprayer, adjust concentration to apply the same amount of product per unit area

1 level teaspoon contains 2.4 grams and 1 cup (8 fl.oz.) contains 4.0 oz of Sagacity 20 SG.
Do not apply more than 1.34 lb (0.268 lb a.i.) per acre of nursery per year.

To delay the development of resistance: Do not apply Sagacity 20 SG or other Group 4A insecticides to consecutive generations of the same insect species without switching to a different mode of action. Do not make more than two sprays of Sagacity 20 SG or other Group 4A insecticides to a single crop during a two-month period. Refer to "Resistance Management "section of label for further guidelines.

8. Application to Soil

For systemic insect control on containerized and field grown (in-ground) ornamental plants in nurseries, greenhouses, interior plantscapes, lath and shadehouses, and outdoor landscapes (commercial, industrial, recreational and residential) when applied via soil drench, soil injection.

Ornamental plants including			
Shrubs	Foliage Plants	Ornamental Trees	Non-Bearing Nut Trees
Bedding Plants	Groundcovers	Non-Bearing Fruit Trees	Non-Bearing Vines
Flowering Plants	Evergreens		

For all soil applications:

1 level teaspoon contains 2.4 grams, and 1 cup (8 fl.oz.) contains 4.0 oz of Sagacity 20 SG.

Do not apply more than 2.7 lb (0.54 lb a.i.) per acre of nursery or landscape per year.

To delay the development of resistance in greenhouses, nurseries and interiorscapes, do not make more than one soil application per crop cycle or three-months, whichever is shorter. Refer to "Resistance Management" section of the label for additional guidelines.

Pests controlled by Sagacity 20 SG when applied to the soil.			
Adelgids including: Hemlock Woolly, Balsam Woolly	Leafminers including Birch, Boxwood, Holly, Serpentine	Royal Palm Bug	Spittlebugs
Aphids including Balsam, Crepe Myrtle, Green Peach, Melon	Mealybugs including Citrus, Longtailed, Madeira, Obscure, Phormium, Pink Hibiscus, Root	Sawfly larvae	Thrips including Chilli (Suppression), Cuban, Laurel, Gladiolus, Gynaikothrips uzeli (Suppression), Western Flower (Suppression)
Flatheaded Borers (excluding Emerald Ash Borer) including Alder, Bronze Birch, Flatheaded	Pine tip moth (larvae)	Scales (Armored and Soft) including Azalea Bark, Brown Soft, Calico, Cottony Cushion, Cottony Maple, Cryptomeria, Cycad, Aulcaspis, Duplacionaspis, Elongate	Treehoppers
Appletree, Two-Lined Chestnut	Plantbugs	Hemlock, Euonymus, False Oleander, Fletcher, Florida Red, Florida Wax, Lecanium, Obscure, Oystershell, Poplar (Aspen), Pine Needle, Tea, Tuliptree	Whiteflies including Ficus, Giant, Greenhouse, Silverleaf/Sweetpotato (B and Q biotypes)
Froghoppers	Psyllids including Asian, Citrus, Boxwood		White Grubs including Oriental Beetle
Fungus Gnats (larvae)	Root Weevils (larvae and adults) including Black Vine, Diaprepes		White Pine Weevil
Horned Oak Gall	Roundheaded Borers including Asian		
Lacebugs including Azalea, Cotoneaster, Hawthorne, Rhododendron	Longhorned, Eucalyptus, Longhorned, Linden, Locust		
Leaf Beetles including Elm, Viburnum			
Leafhoppers including Glassy-Winged Sharpshooter, Potato			

8.1 Containerized Plants -- Soil Media Drench: 0.75 to 1.5 pounds per 100 gallons [12 to 24 ounces per 100 gallons] [1.5 to 3.0 teaspoons per gallon]

Media Drench Volume for Individual Pots	
Pot diameter (inches)	fl.oz. of dilute solution per pot
4	2
5	3
6	4
7	5
8	6

For larger pot volumes, apply 3 to 4 fl.oz. of dilute solution (0.11 to 0.22 g product per 4 fl.oz.) per gallon of potting media. Use a drench volume that is sufficient to wet soil media without resulting in overflow or runoff through drain holes in pot.

Only apply to moist soil media. Do not apply to dry or saturated media. For optimal performance, do not apply media drench until roots from transplanted plugs or liners have extended at least half way to the edge of pots. Do not leach treated soil media for at least 7 days after application or performance may be reduced. Heavy rainfall or excessive irrigation following application may decrease performance. In general, higher rates will be needed to control insects on woody plants than on herbaceous plants.

Poinsettia: For optimal control of whiteflies, treat plants 1 to 3 weeks after pinch. Late season drenches will take longer to give control.

8.2 Containerized Plants -- Media Drench Volume for Plants in Raised Beds, Benches, Bedding Flats, Plug and Liner Trays: Apply sufficient dilute solution to wet soil media without loss of liquid from bottom of bed or liner.

Only apply to moist soil media. Do not apply to dry or saturated media. For optimal performance, do not apply media drench until roots from transplanted plugs or liners have extended at least half way to the edge of pots. Do not leach treated soil media for at least 7 days after application or performance may be

reduced. Heavy rainfall or excessive irrigation following application may decrease performance. In general, higher rates will be needed to control insects on woody plants than on herbaceous plants.

Poinsettia: For optimal control of whiteflies, treat plants 1 to 3 weeks after pinch. Late season drenches will take longer to give control.

8.3 Containerized Plants -- Ebb and Flood

Pot diameter (inches)	Ounces per 1,000 plants
4	1.9 to 3.7
5	2.8 to 5.6
6	3.7 to 7.5
7	4.7 to 9.3
8	5.6 to 11.2

Bring several pots to field capacity, let soil dry and then measure amount of water required to bring pots back to field capacity. Multiply the average volume of water required to rehydrate one pot by the number of pots to be treated. Add this volume of water to the minimum amount of water needed to flood the area to be treated. Re-use any returned volume in subsequent irrigation of same plants.

For pot diameter greater than 8 inches, use 3.7 to 7.5 ounces of Sagacity 20 SG per 1,000 gallons of potting soil media.

8.4 Field Grown (In-Ground) Plants

Shrubs: 3 to 6 grams [1.25 - 2.5 level teaspoons] per foot of height [1.0 to 2.1 ounces per 10 feet of height]

Small Trees (Less than 24-inch diameter at breast height): 3 to 12 grams (1.25 to 5.0 level teaspoons) per inch of trunk diameter at breast height (DBH). [1.05 to 4.2 ounces per 10 inches of trunk diameter at breast height (DBH)]. For multi-stem trees, base rate on cumulative inches of diameter of all stems at breast height.

Large Trees (24-inch diameter or greater at breast height): 6 to 12 grams (2.5 to 5.0 level teaspoons) per inch of trunk diameter at breast height (DBH) [2.1 to 4.2 ounces per 10 inches of trunk diameter at breast height (DBH)]. For multi-stem trees, base rate on cumulative inches of diameter of all stems at breast height.

For Field Grown (In-Ground) Plants:

When applied to the soil, Sagacity 20 SG is taken up by actively growing trees and shrubs. Speed of control will be dependent on tree size, tree health, environmental conditions and how actively pests are feeding. In actively growing and transpiring plants, control may be evident within one week after application in small shrubs, and within three weeks after application in large trees. For optimal control, , time soil applications so that Sagacity 20 SG has had time to move to insect feeding sites by time target life stage is present.

Apply to moist soil. Control may be less effective when applied to dry, saturated, or frozen soil, or at times when plants are not actively taking up water from soil. If possible, irrigate dry soils 1 to 3 days before application, or apply irrigation within 3 days after application. Heavy rainfall or inadequate irrigation immediately following application may decrease performance. Use higher labeled rates for broadleaf evergreens with dense foliage (ex. hollies), and with very large trees.

Soil Drench: Mix required dose in water and uniformly apply to soil around base of shrub or tree. Pull back mulch before drenching. For optimal performance, apply 1 to 4 pints of drench solution per foot of height (shrubs) or inch of trunk diameter (trees). Adjust drench volume based on soil type, soil moisture and thickness of mulch so that product is moved into root zone. To enhance soil penetration in heavy soils and sloping terrain, dig shallow holes around tree or shrub, and apply drench solution in holes.

Lower drench volumes may be less effective in dry soils or when applied over heavy mulch unless there is adequate rainfall or irrigation after application to move product into root zone.

Soil Injection: Mix required dose in water and make at least four injections per shrub or tree with a low-pressure applicator. Use same amount of solution per hole. Injections can be made using the following methods:

- **Grid System** -- Space injections on a 2.5 ft center extending to drip line.
- **Circle System** -- Make injections in concentric circles extending inward from drip line.
- **Basal System** -- Space injections evenly around trunk no more than 24 inches out from the base.

Sagacity 20 SG may be soil injected with low volume (e.g. Kioritz injector) or high volume injection equipment. For optimal performance, inject 1 to 32 fl.oz. of dilute solution per foot of height or inch of trunk diameter depending on application equipment. Make shallow injections where feeder roots are most concentrated.

8.5 Banded spray application to soil surface: (2.7 lbs per acre)

Row spacing in feet	Ounces per 1,000 linear feet of row
3	3
4	4
5	5
6	6
7	7
8	8

Apply as a uniform band in row over root zone. Apply from peak adult flight to peak egg hatch. Apply in at least two gallons of water per 1,000 linear feet. Irrigate after application to move product into soil profile. Control any weeds in treated area prior to application, or performance may be reduced. Adjust rates accordingly for other row spacing. For optimal performance, irrigate after application to move Sagacity 20 SG into the root zone.

8.6 Broadcast spray to soil of plant beds: 2.7 lbs per acre. Apply over the top of ornamental plant beds in a water volume sufficient to move product to soil surface. If necessary, irrigate after application to move product off of foliage and into upper root zone of soil. May be less effective on large woody shrubs than on herbaceous annuals and perennials.

9. Trunk Sprays in Trees And Large Shrubs

For systemic insect control in containerized and field grown (in-ground) ornamental trees and shrubs in nurseries, interior plantscapes, lath and shadehouses and outdoor landscapes (commercial, industrial, recreational and residential) when applied as a trunk spray.

Plants including			
Shrubs	Ornamental Trees	Non-Bearing Fruit Trees	Non-Bearing Nut Trees
Ornamental pests			
Adelgids including Hemlock Woolly Aphids	Flatheaded Borers (excluding Emerald Ash Borer) including Alder, Bronze Birch, Flatheaded Appletree, Two-lined Chestnut Lacebugs	Leaf beetles Leafhoppers Leafminers Mealybugs Pine Tip Moth (larvae)	Psyllids Roundheaded Borers Scales including Calico Thrips (Suppression) Whiteflies

17/21

Application Rate: 12 to 24 oz per gallon. Depending on bark type and thickness, one gallon of spray solution will cover 40 to 50 inches of trunk diameter when measured at 4.5 feet above ground.

When sprayed on the trunk, Sagacity 20 SG will be absorbed through the bark and into the vascular system, and then transported throughout the tree. Speed of control will be dependent on tree size, tree health, environmental conditions and how actively pests are feeding. In actively transpiring trees, control may be evident within 1 to 4 weeks after application.

Spray bark on root flare (buttress roots) and on trunk between soil surface and 4 to 5 feet above the soil surface. Adjust nozzle to uniformly distribute spray over the entire circumference of the tree trunk and buttress roots. Wet bark just to the point of saturation and run off onto soil.

Apply with a low volume sprayer operated at 10 to 20 PSI to prevent tree damage, bounce back and drift. For optimal control, apply to actively growing trees, and time application so that Sagacity 20 SG has had time to move to insect feeding sites at when target life stage is present.

Do not apply to wet bark, during rainfall or if rain is expected within 12 hours. Control may be less effective in trees with thick bark, and at times when trees are not actively growing or transpiring.

1 level teaspoon contains 2.4 grams, and 1 cup (8 fl.oz.) contains 4.0 oz of Sagacity 20 SG.

Do not apply more than 2.7 lb (0.54 lb a.i.) per acre of nursery or landscape per year.

18/21

SUBLABEL 2 Turf Uses Only

1. Product Information

Applications of Sagacity 20 SG in residential areas may be made by commercially licensed applicators.

Application to Turfgrass:

Sagacity 20 SG can be used for the control of soil inhabiting pests of turfgrass such as Masked Chafer, European Chafer, Green June Beetle, May or June Beetle, Japanese Beetle, Oriental Beetle, Billbugs, Annual Bluegrass Weevil, Black Turfgrass Ataenius and Mole Crickets. Sagacity 20 SG can also be used for the suppression of cutworms and chinchbugs in turfgrass areas.

Sagacity 20 SG can be used as directed on outdoor residential, recreational and commercial turfgrass in sites such as home lawns, commercial lawns, multi-family residential and apartment complexes, grounds or lawns around business and office complexes, shopping centers, airports, military and other institutions, cemeteries, golf courses, playgrounds, parks, athletic fields and sod farms.

Target timing of Sagacity 20 SG applications at or just prior to or during egg laying of the target pests. The need for an application can be based on historical and/or physical monitoring of the site, current season adult trapping, previous experience or other methods. Optimum control will be achieved when applications are made prior to or at egg hatch of the target pests followed by sufficient irrigation or rainfall to move the active ingredient through the turf thatch layer. Consult your State Extension Service for information regarding specific application timing.

Do not apply when the target site is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.

2. Resistance Management

Sagacity 20 SG contains a Group 4A insecticide. Insect biotypes with acquired resistance to Group 4A may eventually dominate the insect population if Group 4A insecticides are used repeatedly in the same crop or in successive years as the primary method of control for a targeted species. This may result in partial or total loss of control of those species by Sagacity 20 SG or other Group 4A insecticides.

To delay the development of insecticide resistance strongly consider the following guidelines:

- Do not apply Sagacity 20 SG or other Group 4A insecticides to consecutive generations of the same insect pest species.
- Base insecticide use on a comprehensive IPM program.
- Monitor treated insect populations for loss of field efficacy.
- Contact your local extension specialist, certified crop advisors, and/or manufacturers for insecticide resistance management and/or IPM guidelines for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact PBI/Gordon Corporation [1-877-800-5556 or www.company.com]

3. Mixing Instructions

Sagacity 20 SG Alone: Add half of the required amount of water to the mix tank. With the agitator running, add the desired amount of Sagacity 20 SG to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after Sagacity 20 SG has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

19/21

Sagacity 20 SG + Tank Mixtures: Add half of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, add tank mix partners in this order: products packaged in water soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, emulsifiable concentrates, and surfactants/adjuvants. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

NOTE: When using Sagacity 20 SG in tank mixtures, add all products in water soluble packaging to the tank before any other tank mix partner, including Sagacity 20 SG. Allow the water soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using Sagacity 20 SG in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. Do not exceed label dosage rate, and follow the most restrictive label precautions and limitations. Do not mix this product with any product that prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

Compatibility:

IMPORTANT The safety of all potential tank mixes has not been tested on all crops. Before applying any tank mixture not specifically listed on this label, confirm the safety to the target crop.

Sagacity 20 SG is compatible with most commonly used pesticides, crop oils, adjuvants, and nutritional sprays. However, since it is not possible to test all possible mixtures, pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixtures with Sagacity 20 SG. To determine the physical compatibility of Sagacity 20 SG with other products, use a jar test, as described below:

Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for additional required ingredients to the spray tank.

4. Application Procedures and Spray Equipment

Ground Application: Select spray nozzles that will provide accurate and uniform spray deposition. Use spray nozzles that provide medium-sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State Extension Service specialists.

Apply Sagacity 20 SG using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Do not apply under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Applications to turfgrass: Apply Sagacity 20 SG through conventional spray equipment in a minimum of 1 gallon of finished spray per 1000 sq.ft. Ensure adequate distribution in the treated area using accurately calibrated equipment normally used for application of turfgrass insecticides. Use equipment that will produce a uniform, coarse droplet spray, using a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly. Prevent skips by using marker dyes or foam aids.

Restrictions

- Do not graze treated areas or use clippings from treated areas for feed or forage.
- Prevent runoff or puddling of irrigation water following application.

- Keep children and pets off treated areas until spray has dried.
- Do not apply to areas that are water logged or saturated, or frozen, which will not allow penetration into the root zone of the plant.

Minimizing Spray Drift

As with all crop protection products, it is important to minimize off-target movement. Do not allow spray to drift onto adjacent land, crops, or aquatic areas. To minimize spray drift:

1. Make applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 10 mph. Do not apply when wind gusts approach 10 mph.
2. Risk of exposure to sensitive aquatic areas can be reduced by not applying when wind direction is toward the aquatic area.
3. Do not cultivate or plant crops within 25 feet of the aquatic area as to allow growth of a vegetative filter strip.
4. Do not make applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with increased height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
5. Use the largest droplet size consistent with good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by not using excessive spray boom pressure.
6. Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage. Don not apply more than 10 ft above the crop canopy.
7. For aerial applications, mount spray boom on the aircraft so as to minimize drift caused by wing tip vortices. Use minimum practical boom length and do not use boom that exceeds 75% of wing span or rotor diameter.

5. Turfgrass

Crop	Pest	Product Rate	Remarks
Turfgrasses Residential Recreational Commercial	Mole cricket Southern mole cricket Tawny mole cricket	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	Make application prior to or during the peak egg hatch period. When adults or large nymphs are present and actively tunneling, tank mix with a curative insecticide
	White grub larvae such as: Annual bluegrass weevil Asiatic garden beetle Billbug Black Turfgrass ataenius European chafer Green June beetle Japanese beetle May/June beetle Northern masked chafer Oriental beetle Southern masked chafer	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	For optimum control of grubs, billbugs, and annual bluegrass weevil, make application prior to or during egg hatch of the target pest.
	Cutworms Chinchbug Sod webworm	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	For suppression of chinchbugs, make application prior to hatching of the first instar nymphs.
	European Crane fly	2.7 lb per acre 1 oz per 1000 sq.ft. [0.54 lb a.i. per acre]	
<p>Important Notes:</p> <ul style="list-style-type: none"> • Apply in sufficient water to ensure thorough coverage of target area. Use a minimum of 50 gallons finished spray per acre. • Consult your local State Extension Service or State Extension Turfgrass Specialists for more specific information on timing of insecticide applications. • For optimal control, apply irrigation if rainfall does not occur within 24 hours after application to ensure movement of the active ingredient through the thatch. • Do not apply more than a total of 2.7 lb of Sagacity 20 SG (0.54 lb a.i.) per acre of turf per year. 			

APPENDIX

1. Statements which may appear on different label components depending on packaging configuration.

- See next panel for additional Precautionary Statements and First Aid
- Net Weight: _____
- EPA Est. No. _____

2. Advertising claims that may be presented on container labeling, advertisements, brochures, and other marketing/sales promotional materials:

- GROUP -- 4A -- INSECTICIDE

DOCUMENT CONTROL INFORMATION

1. Unique Label Identifier: 002217-00YYY.20091116.new-proposed-Sagacity20SG.doc

2. Reason for Issue: New product