

Supplemental Label



Safari® 20 SG INSECTICIDE

EPA Reg. No. 86203-11-59639
(Except California and New York)

SAFARI® 20 SG INSECTICIDE FOR USE ON ORNAMENTAL PLANTS AND FORESTS

This supplemental label expires on June 30, 2016 and must not be used or distributed after this date.

DIRECTIONS FOR USE

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

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF APPLICATION. READ THE LABEL AFFIXED TO THE CONTAINER FOR SAFARI 20 SG INSECTICIDE BEFORE APPLYING. USE OF SAFARI 20 SG INSECTICIDE ACCORDING TO THIS LABELING IS SUBJECT TO THE USE PRECAUTIONS AND LIMITATIONS IMPOSED BY THE LABEL AFFIXED TO THE CONTAINER FOR SAFARI 20 SG INSECTICIDE.

Application to Ornamental Plants (including Forestry):

- *Safari 20 SG Insecticide* can be applied as a foliar spray, a broadcast spray, a soil drench, soil injection and via chemigation for insect control in ornamental plants in greenhouses, nurseries, outdoor landscapes and interior plantscapes.
- *Safari 20 SG Insecticide* 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, *Safari 20 SG Insecticide* 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 growing in the landscape.
- For outdoor and landscape ornamentals, neither broadcast NOR soil applications can exceed a total of 2.7 lbs of product (0.54 lbs active ingredient) per acre per year.
- **For trees in forests that are pollinated by bees or other invertebrates, make applications post-bloom.**

Application to Vegetable Transplants:

- *Safari 20 SG Insecticide* can be applied as a foliar spray or a broadcast spray for insect control in vegetable transplants.
- Do not apply more than 1.34 lbs (0.268 lbs ai) per acre of nursery per year.

Applications to ornamental plants, forestry, and vegetable transplants:

Safari 20 SG Insecticide can be applied using many different types of application equipment. Apply in sufficient water to ensure good coverage of ornamental plants. Tank mixing with a surfactant will produce better coverage when making applications to plants with hard to wet foliage such as holly or pine. 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

- With the exception of non-livestock animals, 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.

ORNAMENTAL PLANTS AND FORESTS

FOLIAR OR BROADCAST SPRAY APPLICATION

For foliar insect control on ornamental plants in nurseries, greenhouses, interior plantscapes, lath and shadehouses, outdoor landscapes (commercial, industrial, recreational and residential), tree plantations, reforestation nurseries and forests.

Crop	Pest	Product Rate	Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Christmas Trees Trees in Plantations including: Conifers Deciduous trees Reforestation Nurseries Forests and Wooded Areas, National, Private and State	Adelgids including: Hemlock Woolly Balsam Woolly Aphids (suppression) including: Crepe Myrtle, Green Peach Melon Japanese beetles (adults) Lacebugs including: Azalea, Hawthorne Leaf beetles Viburnum Leafhoppers, including Glassy-Winged Sharpshooter Potato Leafminers including: Serpentine Mealybugs including: Citrus, Long-Tailed, Madeira, Obscure, Phormium, Pink Hibiscus Psyllids including: Asian Citrus Root Weevils (adults) including: Black Vine, Diaprepes Sawflies (larvae) Scale (Armored and Soft) including: Cryptomeria, Cycad Aulacaspis, Elongate Hemlock, Euonymus, Florida Red, Florida Wax, Tea Thrips including: Chilli, Gynaikothrips uzeli, Western Flower (Suppression) Whiteflies including: Fig (Ficus), Giant, Greenhouse, Silverleaf /Sweetpotato (B and Q Biotypes)	Foliar Spray 1/4 to 1/2 lb per 100 gallons (4 to 8 oz per 100 gallons) (0.05 to 0.1 lbs ai per 100 gallons) 8 - 16 oz per Acre (0.1 to 0.2 lbs ai/A) 0.2 - 0.4 oz per 1,000 sq ft For treatment of small areas: 1/2 - 1.0 tsp per gallon	Make first application just before pest populations reach an economic threshold. If necessary, make a second application after 14-21 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 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.

One (1) level teaspoon contains 2.4 grams and 1 cup (8 fl oz) contains 4.0 oz by weight of *Safari* 20 SG Insecticide. Make first application just before pest populations reach an economic threshold. If necessary, make a second application after 14-21 days.

Restrictions:

Not for use on house plants grown inside private residences.

Do not apply more than 2.7 lbs (0.54 lbs ai) per acre of nursery, landscape or forest per year.

For trees in forests that are pollinated by bees or other invertebrates, make applications post-bloom.

To delay the development of resistance: Do not apply *Safari* 20 SG Insecticide 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 *Safari* 20 SG Insecticide or other Group 4A insecticides to a single crop. Refer to "Resistance Management" section of label for further guidelines.

ORNAMENTAL PLANTS AND FORESTS

APPLICATION TO SOIL

For systemic insect control on containerized and field grown (in-ground) ornamental plants in nurseries, greenhouses, interior landscapes, lath and shadehouses, outdoor landscapes (commercial, industrial, recreational and residential), tree plantations, reforestation nurseries and forests when applied via soil drench, soil injection, micro-irrigation (spaghetti tube or emitter), drip irrigation, overhead irrigation, ebb and flood irrigation equipment or motorized irrigation equipment.

Crop	Pest	Product Rate (By weight)		Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Christmas Trees Trees in Plantations including: Conifers Deciduous trees Reforestation Nurseries Forests and Wooded Areas, National, Private and State	Adelgids including: Hemlock Woolly Balsam Woolly Aphids including Crepe Myrtle Green Peach Melon Bagworms Eastern Tent Caterpillar Erythrinia Gall Wasp Flatheaded Borers including: Emerald Ash Flatheaded Appletree Fungus Gnats (larvae) Gypsy Moth (larvae) Japanese Beetle (Adults) Lacebugs including: Azalea Hawthorne Leaf Beetles including Elm Viburnum Leafhoppers including Glassy-Winged Sharpshooter Potato (continued)	Containerized Plants		Only apply to moist soil media. Do not apply to dry or saturated media. 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. Higher rates will be needed to control insects on woody plants than on herbaceous plants.
		Soil Media Drench		
		3/4 to 1-1/2 pounds per 100 gallons		
		12 to 24 ounces per 100 gallons		
		1.5-3.0 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 - 4 fl oz of dilute solution (0.11 to 0.22 g product per 4 fl oz, water) 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.				
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.				

continued

ORNAMENTAL PLANTS AND FORESTS (Continued)

APPLICATION TO SOIL

For systemic insect control on containerized and field grown (in-ground) ornamental plants in nurseries, greenhouses, interior plantscapes, lath and shadehouses, outdoor landscapes (commercial, industrial, recreational and residential), tree plantations, reforestation nurseries and forests when applied via soil drench, soil injection, micro-irrigation (spaghetti tube or emitter), drip irrigation, overhead irrigation, ebb and flood irrigation equipment or motorized irrigation equipment.

Crop	Pest	Product Rate (By weight)		Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Christmas Trees Trees in Plantations including: Conifers Deciduous trees Reforestation Nurseries Forests and Wooded Areas, National, Private and State	Leafminers including: Birch Boxwood Chrysanthemum Holly Serpentine Mealybugs Citrus Longtailed Madeira Obscure Phormium Pink Hibiscus Root Mimosa Webworm (larvae) Peachtree Borer Pine tip moth (larvae) Plantbugs Psyllids including: Asian Citrus Boxwood Root Weevils (larvae and adults) including Black Vine Diaprepes Roundheaded Borers (excluding Asian Longhorned) Royal Palm Bug Sawfly larvae Scales (Armored and Soft) Including: Azalea Bark Brown Soft Calico California Red Cottony Cushion Cottony Maple Cryptomeria (continued)	Containerized Plants Ebb and Flood Irrigation		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", use 3.7 - 7.5 ounces of <i>Safari</i> 20 SG Insecticide per 1,000 gallons of potting soil media. Use typical injection ratio for injectors (e.g. 1:100, which equals 1 part injector tank solution: 100 parts irrigation water). Do not mix more than 24 oz of <i>Safari</i> 20 SG Insecticide per gallon of injector tank water, or some product may settle out of solution. Calibrate irrigation system to deliver 3 - 4 fl oz of dilute solution per gallon of potting media.
		Pot diameter (inches)	Ounces per 1,000 pots	
		4	1.9 – 3.7	
		5	2.8 – 5.6	
		6	3.7 – 7.5	
		7	4.7 - 9.3	
		8	5.6 - 11.2	
		Chemigation of individual containers using a micro-irrigation system (spaghetti tube)		
		Injection ratio	Ounces per gallon of injector tank water	
		1:100	12 - 24	

continued

ORNAMENTAL PLANTS AND FORESTS (continued)

APPLICATION TO SOIL

For systemic insect control on containerized and field grown (in-ground) ornamental plants in nurseries, greenhouses, interior landscapes, lath and shadehouses, outdoor landscapes (commercial, industrial, recreational and residential), tree plantations, reforestation nurseries and forests when applied via soil drench, soil injection, micro-irrigation (spaghetti tube or emitter), drip irrigation, overhead irrigation, ebb and flood irrigation equipment or motorized irrigation equipment.

Crop	Pest	Product Rate (By weight)	Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Christmas Trees Trees in Plantations including: Conifers Deciduous trees Reforestation Nurseries Forests and Wooded Areas, National, Private and State	Scales (Armored and Soft) continued Cycad Aulacaspis Duplacionaspis Elongate Hemlock Euonymus False Florida Red False Oleander Fig (Ficus) Wax Fletcher Florida Red Florida Wax Indian Wax Lecanium Lobate Lac Melanaspis deklei Obscure Oystershell Poplar (Aspen) Pine Needle Tea Tuliptree Spittlebugs Tent Caterpillar (larvae) Thrips including: Chilli (Suppression) Citrus Cuban Laurel Gladiolus Gynaikothrips uzeli (Suppression) Western Flower (Suppression) Whiteflies including: Ficus Giant Greenhouse Silverleaf/Sweetpotato (B and Q biotypes) White Grubs including: Oriental Beetle	<p style="text-align: center;">Field Grown (In-Ground) Shrubs</p> <p style="text-align: center;">3 - 6 grams (1.25 - 2.5 level teaspoons) per foot of height</p> <p style="text-align: center;">1.0 - 2.1 ounces per 10 feet of height</p>	<p>When applied to the soil, <i>Safari 20</i> SG Insecticide is taken up by actively growing trees and shrubs. Speed of control will be dependent on plant size, plant health, environmental conditions and how actively pests are feeding. In actively growing plants, control may be evident within 1-3 weeks after application depending on plant size. Time applications to coincide with when most vulnerable pest life stage is present on plants. 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.</p> <p>If possible, irrigate dry soils 1-3 days before application, or apply irrigation within 3 days after application.</p> <p>Heavy rainfall or inadequate irrigation immediately following application may decrease performance.</p> <p>Use higher labeled rates for broadleaf evergreens with dense foliage (ex. hollies), and with very large trees.</p> <p>Soil Drench: Mix required dose in water and uniformly apply to soil around base of shrub or tree. Pull back mulch before drenching. Apply 1-4 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.</p>

continued

ORNAMENTAL PLANTS AND FORESTS (continued)

APPLICATION TO SOIL

For systemic insect control on containerized and field grown (in-ground) ornamental plants in nurseries, greenhouses, interior plantscapes, lath and shadehouses, outdoor landscapes (commercial, industrial, recreational and residential), tree plantations, reforestation nurseries and forests when applied via soil drench, soil injection, micro-irrigation (spaghetti tube or emitter), drip irrigation, overhead irrigation, ebb and flood irrigation equipment or motorized irrigation equipment.

Crop	Pest	Product Rate (By weight)	Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Christmas Trees Trees in Plantations including: Conifers Deciduous trees Reforestation Nurseries Forests and Wooded Areas, National, Private and State	(Refer to list above)	<p align="center">Field Grown (In-Ground) Trees (Less than 24" diameter at breast height)</p> <p align="center">3 - 12 grams (1.25 - 5.0 level teaspoons) per inch of trunk diameter at breast height (DBH)</p> <p align="center">1.05 - 4.2 ounces per 10 inches of trunk diameter at breast height (DBH)</p> <p>For multi-stem trees, base rate on cumulative inches of diameter of all stems at breast height.</p>	<p>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:</p> <p>Grid System-Space injections on a 2.5 ft center extending to drip line.</p> <p>Circle System-Make injections in concentric circles extending inward from drip line.</p>
		<p align="center">Field Grown (In-Ground) Trees (24" diameter or greater at breast height)</p> <p align="center">6 - 12 grams (2.5 - 5.0 level teaspoons) per inch of trunk diameter at breast height (DBH)</p> <p align="center">2.1 - 4.2 ounces per 10 inches of trunk diameter at breast height (DBH)</p> <p>For multi-stem trees, base rate on cumulative inches of diameter of all stems at breast height.</p>	<p>Basal System-. Space injections evenly around trunk no more than 24" out from the base.</p> <p><i>Safari 20 SG</i> Insecticide may be soil injected with low volume (e.g. Kioritz injector) or high volume injection equipment. Inject 1 – 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.</p>
		<p align="center">Hedges</p> <p>0.25 – 1.0 oz per foot of hedge height per 100 linear feet of hedge row</p>	<p>Apply in enough water to wet the lower 12" of trunk and surrounding soil surface. Apply in a one foot wide band over base of trunk and soil down center of hedgerow. To improve performance, rake back mulch before application.</p>

continued

ORNAMENTAL PLANTS AND FORESTS (continued)

APPLICATION TO SOIL

For systemic insect control on containerized and field grown (in-ground) ornamental plants in nurseries, greenhouses, interior plantscapes, lath and shadehouses, outdoor landscapes (commercial, industrial, recreational and residential), tree plantations, reforestation nurseries and forests when applied via soil drench, soil injection, micro-irrigation (spaghetti tube or emitter), drip irrigation, overhead irrigation, ebb and flood irrigation equipment or motorized irrigation equipment.

Crop	Pest	Product Rate (By weight)		Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines Christmas Trees Trees in Plantations including: Conifers Deciduous trees Reforestation Nurseries Forests and Wooded Areas, National, Private and State	(Refer to list above)	Field grown nursery stock Banded spray application to soil surface (2.7 lbs per acre)		Apply as a uniform band in row over root zone and lower 6-12" of trunk. Apply from peak adult flight to peak egg hatch.
		Row spacing in feet	Ounces per 1,000 linear feet of row	
		3	3	
		4	4	
		5	5	
		6	6	
		7	7	
		8	8	
		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.

Important Notes:

One (1) level teaspoon contains 2.4 grams, and 1 cup (8 fl oz) contains 4.0 oz by weight of *Safari* 20 SG Insecticide.

For all soil applications, including chemigation, retreatments may be made after 7 days but do not apply more than 2.7 lbs (0.54 lbs ai) per acre of nursery, landscape or forest per year.

Restrictions:

Do not apply more than 2.7 lbs (0.54 lbs ai) per acre of nursery, landscape or forest 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.

ORNAMENTAL PLANTS AND FORESTS

BASAL 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, outdoor landscapes (commercial, industrial, recreational and residential), tree plantations and forests when applied as a trunk spray.

Crop	Pest	Product Rate (By weight)	Remarks
Shrubs Ornamental trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Trees in Plantations including: Conifer Deciduous Reforestation Nurseries Forests and Wooded Areas National, Private and State	Adelgids including Hemlock Woolly Flatheaded Borers including: Emerald Ash Flatheaded Appletree Mountain Pine Beetle Scales including Calico Cryptomeria Elongate Hemlock Fig (Ficus) Wax Thrips (Suppression) Whiteflies including Fig (Ficus)	12 - 24 oz per gallon Depending on bark type and thickness, one gallon of spray solution will typically cover 65-85" of cumulative trunk diameter (1.5 - 2.0 fl oz per inch of trunk diameter) when applied to trunk between soil surface and 4.5 feet above soil surface.	When sprayed on the trunk, <i>Safari 20</i> SG Insecticide 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 1-3 weeks after application. Spray bark on root flare (buttress roots) and on trunk between soil surface and 4-5 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 ONLY with a low volume sprayer operated at less than 20 PSI to prevent tree damage, bounce back and drift of spray droplets. Time applications to coincide with when most vulnerable pest life stage is present on plants. 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. For Mountain Pine Beetle: apply from 2 weeks before to 2 weeks after expected peak of adult flight activity.
Christmas Trees Ornamental trees with trunk diameter less than 3" at soil line	Elongate Hemlock Scale Cryptomeria Scale Ficus (fig) whitefly	1.5 - 6.0 oz/gallon One gallon of spray solution will typically cover 325-425" of cumulative trunk diameter (0.3 - 0.4 fl oz per inch of trunk diameter) when applied to trunk between soil surface and 1 foot above soil surface.	For Christmas trees and ornamental trees less than 3" in diameter at soil line, spray trunk just to point of runoff between soil surface and 12" above soil surface.

continued

One (1) level teaspoon contains 2.4 grams, and 1 cup (8 fl oz) contains 4.0 oz by weight of *Safari* 20 SG Insecticide

Restrictions:

Do not apply more than 2.7 lbs (0.54 lbs ai) per acre of nursery, forest or landscape per year.

PLEASE CONTACT VALENT U.S.A. CORPORATION AT 800-6-VALENT (682-5368) TO DETERMINE IF THIS USE IS REGISTERED IN YOUR STATE.

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Manufactured for

Valent U.S.A. Corporation

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Made in U.S.A.

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