

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Washington, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

MAY -8 2012

Geraldine Meunier
Bayer Environmental Science
P.O. Box 12014
Research Triangle Park, NC 27709

Subject:

Label Amendment (increase turf application rate, add multiple applications

at lower rates, revise ornamental directions, add weed)

Specticle 20 WSP Herbicide EPA Reg. No. 432-1499

Application Dated March 5, 2012

Dear Ms. Meunier:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of your label is enclosed for your records. This label supersedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products released for shipment after eighteen (18) months from the date of this letter must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions, please contact Mindy Ondish at (703)605-0723 or at ondish.mindy@epa.gov.

Sincerely,

Kable Bo Davis Product Manager 25 Herbicide Branch

Registration Division (7505P)

GROUP 29 HERBICIDE

# SPECTICLE™ 20WSP HERBICIDE

Pre-emergent Herbicide for the Control of Annual Grasses, Annual Sedges, and Broadleaf Weeds in Turfgrass, Landscape and Production Ornamentals, Hedgerows, Conifers, Christmas Trees, Greenhouse Floors, Ornamental Production Sites, and Hardscapes

# DO NOT USE FOR THE MANUFACTURING OF FERTILIZER

EPA Reg. No. 432-1499	EPA Est.
Total	
OTHER INGREDIENTS:	80.0%
ACTIVE INGREDIENT: Indaziflam	

# CAUTION

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-800-331-2867

# **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 a poison control center or doctor.
	Do not give anything to an unconscious person.
If in eyes:	<ul> <li>Hold eyes 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.</li> </ul>
	Call a poison control center or doctor for treatment advice.
If on skin or clothing:	Take off contaminated clothing.
	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.

# PRECAUTIONARY STATEMENTS

# HAZARD TO HUMANS

#### CAUTION

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

#### 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 nitrile or butyl gloves, and shoes plus socks.

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

#### **ENGINEERING CONTROLS STATEMENTS:**

When handlers use closed systems or enclosed cabs 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 wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. Then wash body thoroughly and put on clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish, aquatic invertebrates, and plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean water mark. Do not contaminate water when disposing of equipment rinsate or washwater. This product may enter water through spray drift or runoff. Follow directions for use to avoid spray drift and runoff. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential for getting into water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

This product may enter water through drift of spray in wind. Follow precautions for use to avoid wind spray drift.

Surface Water Advisory: This pesticide may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application.

Ground Water Advisory: This pesticide has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

#### **DIRECTIONS FOR USE**

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

Read entire label before using this product.

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

# AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, chemical resistant gloves made of any waterproof material, and 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. Keep unprotected persons out of the treated areas until sprays have dried.

## STORAGE AND DISPOSAL

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

## PESTICIDE STORAGE

Store in original container only. Store in a manner to prevent cross-contamination of other pesticides, fertilizer, food and feed. Do not store in or around the home. Store in a dry, locked storage area.

#### PESTICIDE DISPOSAL

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

# **CONTAINER HANDLING**

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Dispose of in a sanitary landfill, or dispose of the empty outer foil pouch in the trash as long as WSP is unbroken.



## PRODUCT INFORMATION

SPECTICLE™ 20WSP HERBICIDE is a selective, pre-emergent alkylazine herbicide. SPECTICLE 20WSP HERBICIDE provides extended residual control of many annual grasses including crabgrass, goosegrass, and annual bluegrass, as well as annual sedges, and broadleaf weeds in turf, landscape ornamentals, production nursery including in-ground and pot-in-pot container grown ornamentals, conifers and Christmas trees, non-bearing fruit and nut trees in nurseries and residential plantings, greenhouse floors (under benches), ornamental production facilities (such as shadehouses, hoophouses, and lathhouses), and hardscapes. SPECTICLE 20WSP HERBICIDE also demonstrates limited early post-emergent activity against some weeds, including annual bluegrass, crabgrass and oxalis.

SPECTICLE 20WSP HERBICIDE is also used on established turf in areas including golf courses (roughs and fairways), sod farms, sports fields, residential and commercial lawns, parks, and cemeteries.

SPECTICLE 20WSP HERBICIDE controls weeds by reducing the emergence of seedlings through inhibition of cellulose biosynthesis (CB Inhibitor). Necrosis or chlorosis may be observed if the herbicide is applied to herbaceous tissue such as leaves and green stems of susceptible plants including sensitive ornamentals. SPECTICLE 20WSP HERBICIDE does not control plants emerging from tubers, rhizomes, bulbs, corms, existing rootstocks, and woody vegetation. SPECTICLE 20WSP HERBICIDE suppresses the development of some additional hard-to-control weeds.

SPECTICLE 20WSP HERBICIDE needs to be activated prior to weed germination for most effective control. For maximum activity against germinating weeds, SPECTICLE 20WSP HERBICIDE requires rainfall or irrigation prior to weed germination.

SPECTICLE 20WSP HERBICIDE is a highly active herbicide that provides effective weed control when applied to the soil around many field grown woody ornamentals. SPECTICLE 20WSP HERBICIDE may damage sensitive plants, if the product is allowed to remain in contact with foliage. Carefully apply SPECTICLE 20WSP HERBICIDE in strict accordance to the label. Be sure to follow all label restrictions.

#### PRODUCT USE RESTRICTIONS

- Do not exceed the maximum single application rates specified under each use.
- Do not exceed 7 oz per acre of SPECTICLE 20WSP HERBICIDE for all applications within a 12 month period.
- · Do not contaminate water intended for irrigation and domestic use.
- Do not apply within 25 feet of ponds, lakes, rivers, streams, wetlands, and habitat containing aquatic and semi-aquatic plants when SPECTICLE 20WSP HERBICIDE is used on sod farms, golf courses, production nurseries, and non-crop areas (excluding lawns).
- Do not apply SPECTICLE 20WSP HERBICIDE through an irrigation or chemigation system.
- Do not apply SPECTICLE 20WSP HERBICIDE by air.
- Follow use precautions and restrictions on this label and for all tank-mix partners, if mixing SPECTICLE 20WSP HERBICIDE with other pesticides.
- Water soluble packs of SPECTICLE 20WSP HERBICIDE are intended to be added to the spray tank without opening. Do not
  cut the water soluble packs open for any reason.

Not all products are registered in all states; please verify state registration of these products in your state before selling, distributing, or using

## **DEACTIVATING SPECTICLE 20WSP HERBICIDE**

Activated charcoal has been shown to deactivate SPECTICLE 20WSP HERBICIDE if applied within several days of application. Application of activated charcoal within 2 weeks of an application of SPECTICLE 20WSP HERBICIDE will not reverse phytotoxic symptoms immediately, but it will aid in recovery over time. If it should be necessary to re-sod areas treated with SPECTICLE 20WSP HERBICIDE, remove damaged turf to a depth of at least 2 inches, cultivate the soil, and apply activated charcoal to bare ground prior to laying sod. Follow directions for the amount of charcoal to apply on the label of the activated charcoal.

# SPRAY DRIFT MANAGEMENT

Spray equipment and weather affect spray drift. Consider all factors when making application decisions. Where states have more stringent regulations, they must be observed. Avoiding spray drift is the responsibility of the applicator or grower. To reduce the potential for drift, the application equipment must be set to apply medium to large droplets (i.e., ASAE Standard 572) with corresponding spray pressure. Use high flow rate nozzles to apply the highest practical spray volume. With most nozzle types, narrower spray angles produce larger droplets. Follow the nozzle manufacturer's directions on pressure, orientation, spray volume, etc., in order to minimize drift and optimize coverage and control.

#### Wind

Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. Do not spray near sensitive plants if wind is gusty, below 2 mph, or in excess of 10 mph and moving in the direction of adjacent areas of sensitive crops or plants. Do not apply during temperature inversions. Always make applications when there is some air movement to determine the direction and distance of possible spray drift.

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Local terrain may influence wind patterns; the applicator should be familiar with local conditions and understand how they may impact spray drift. Boom or nozzle shielding can reduce the effects of wind or air currents on drift. Verify that the shields do not interfere with uniform deposition of product prior to application.

#### **Temperature Inversion**

A surface temperature inversion (i.e., increasing temperature with increasing altitude) greatly increases the potential for drift. Avoid application when conditions are favorable to inversion. Presence of ground fog is a good indicator of a surface temperature inversion.

#### **Sensitive Areas**

Sensitive areas to SPECTICLE 20WSP HERBICIDE are defined as bodies of water (ponds, lakes, rivers, and streams), wetlands, habitats for endangered species, and non-labeled agricultural crop areas. Applicators must take all precautions necessary to keep spray drift from reaching sensitive areas.

#### Spray Drift Management (Golf Course; Residential, and Commercial Lawns):

Set the boom and make applications at the lowest height that safely permits uniform coverage of the soil and minimizes droplet evaporation. For use on golf courses and commercial lawns, the boom height must be no higher than 1-3 feet above the ground and nozzle tips must be set to spray out medium to very coarse spray droplets. Applications to residential lawns must be made by equipment that maintains coarse spray droplets (to reduce drift).

#### Spray Drift Management (Ornamentals):

Apply SPECTICLE 20WSP HERBICIDE to dormant (prior to bud break) or actively growing plants. In either case, the spray must be directed at the base of the plant or away from the plant. Do not allow SPECTICLE 20WSP HERBICIDE to come in contact with the foliage, as some leaf malformations or discoloration may occur. Minimize contact with above ground stems.

# Spray Drift Management (Conifers/Christmas Trees):

For Christmas trees and conifers, direct the spray to the base of the trees with a band or with a broadcast application. Do not allow SPECTICLE 20WSP HERBICIDE to come into contact with the foliage.

#### APPLICATION INFORMATION

Apply SPECTICLE 20WSP HERBICIDE with a properly calibrated sprayer according to the manufacturer's directions and check periodically to be certain that the equipment is working properly prior to each use. Uniform application is essential for satisfactory weed control. Avoid skips for the best weed control and overlapping application patterns to avoid turf injury.

#### **Application Volume**

Apply SPECTICLE 20WSP HERBICIDE in a minimum of 10 gallons of water per acre (1 quart of water per 1000 sq ft) and ensure adequate coverage for optimum weed control.

#### IRRIGATION AND WATERING AFTER APPLICATION

To activate SPECTICLE 20WSP HERBICIDE for maximum herbicidal benefit, irrigate turf treated with SPECTICLE 20WSP HERBICIDE within 2 days after application to move the herbicide into the soil. With dry soil, use a minimum of 0.25 inches of irrigation water. With soil at or greater than field capacity, the amount of irrigation water should be reduced. In either case, do not create conditions that cause visible run-off of irrigation water. Adequate rainfall following an application will negate the need for irrigation.

#### MIXING AND COMPATIBILITY

#### **Mixing Instructions**

SPECTICLE 20WSP HERBICIDE is packaged in water soluble pouches. The water soluble packages should not be allowed to become wet prior to addition to the spray tank. Avoid rough handling of packs that may cause breakage. Reseal the container to protect any unused packs from moisture. Do not add WSP directly to micronutrient solutions or liquid fertilizer mixtures. Completely dissolve WSP into water prior to adding any liquid fertilizer or micronutrient.

SPECTICLE 20WSP HERBICIDE should be added to the tank and agitated, prior to introduction of another pesticide. Depending on the temperature of the water and the degree of agitation, the packets should be dissolved within a few minutes after they are added to the water.

Mix the amount of SPECTICLE 20WSP HERBICIDE needed for immediate application needs. Settling can occur if the spray mixture is allowed to sit over an extended period of time. Re-agitate the spray solution before application.

## **Compatibility Testing With Other Pesticides**

SPECTICLE 20WSP HERBICIDE is generally compatible with many pesticides and liquid fertilizers\*. A compatibility test should be conducted with any potential tank-mix partner with SPECTICLE 20WSP HERBICIDE. Using a clear container, conduct the test as described below:

- 1. Fill the container three-quarters full with water.
- Add the appropriate amount of SPECTICLE 20WSP HERBICIDE\*\* and the tank mix partner in the following order: (a) SPECTICLE 20WSP HERBICIDE, (b) dry flowable, (c) aqueous suspensions, (d) flowables, (e) liquids, (f) solutions and emulsifiable liquid concentrates, g) micronutrients and liquid fertilizers.
- 3. Shake or stir after each addition to mix thoroughly.
- 4. After adding all ingredients, let the mixture stand for 15 minutes and look for separation, large flakes, precipitates, gels, and heavy oily film or other signs of incompatibility.



- 5. If the compatibility test shows signs of incompatibility, do not tank mix the product tested with SPECTICLE 20WSP HERBICIDE.
- If mixing with a liquid fertilizer or micronutrient, add SPECTICLE 20WSP HERBICIDE to the tank first and make sure it is fully dissolved before adding the fertilizer.

\*Do not use SPECTICLE 20WSP HERBICIDE packets in a tank mix combination with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic which is not soluble in water or solvents such as diesel oils, kerosene, gasoline, or alcohol.

\*\*Note that a labeled spray rate for SPECTICLE 20WSP HERBICIDE should be used in any compatibility test. Dilute from a concentrated suspension, or sample from a properly diluted spray solution. Do not cut the water soluble packs open for any reason.

#### SPRAYER CLEANUP PROCEDURE

Spray equipment used to apply SPECTICLE 20WSP HERBICIDE must be cleaned prior to use on sensitive turf and ornamentals, or injury may result. Before and after using SPECTICLE 20WSP HERBICIDE, triple rinse all mixing and spray equipment, including tanks, pumps, lines, filters, screens, and nozzles with a good quality tank cleaner on an approved rinse pad. Proper PPE must be worn while cleaning. Follow the directions below.

For each rinse cycle complete the following:

- · Completely drain the spray and mixing tanks.
- Rinse the spray tank inside and outside including all lines and screens. A rotating cleaning nozzle may be beneficial to dislodge any product from the sides of the tank.
- · Fill the tank with water and cleaner.
- Circulate solution to ensure that the pumps, valves, and all lines are flushed.
- Remove and clean all filters, screens, and nozzles.
- Drain all cleaning solution and then rinse once more with clean water.
- · Visually inspect the filters, screens, and tank walls to ensure that no product remains.
- · Dispose of rinsate in an approved way.

#### RESISTANCE MANAGEMENT

SPECTICLE 20WSP HERBICIDE controls weeds by inhibiting cellulose biosynthesis. Cellulose is a component in the formation of plant cell walls. SPECTICLE 20WSP HERBICIDE is classified as a Group 29 herbicide. No known resistance to SPECTICLE 20WSP HERBICIDE exists, and there are no known instances of cross resistance between SPECTICLE 20WSP HERBICIDE and other classes of herbicides or other modes of action. Performance of SPECTICLE 20WSP HERBICIDE is not affected by the presence of biotypes resistant to glyphosate, triazines, ALS inhibitors, mitotic inhibitors, growth regulators, or herbicides with other modes of action. Prolonged use of any herbicide with the same mode of action may lead to selection of resistant weed populations and a reduction in efficacy. Rotation of herbicides with an alternate mode of action can help prevent the development and spread of resistant weed populations. If resistance to SPECTICLE 20WSP HERBICIDE is suspected, use a herbicide with an alternate mode of action. The decision to use a particular herbicide should always be based on an IPM program and involve consideration of all cultural practices and other pesticides in use.

# DIRECTIONS FOR USE OF SPECTICLE 20WSP HERBICIDE ON TURF Use Restrictions for SPECTICLE 20WSP HERBICIDE on Turf

- Do not apply SPECTICLE 20WSP HERBICIDE to newly established turf. (Turf is defined as established at least 16 months after seeding or sprigging.)
- Do not apply SPECTICLE 20WSP HERBICIDE to golf course greens, tees, or collars.
- Do not verticut within 1 month before or after an application of SPECTICLE 20WSP HERBICIDE.

#### Use of SPECTICLE 20WSP HERBICIDE on Weakened or Stressed Turf

Do not apply SPECTICLE 20WSP HERBICIDE to weakened turf that requires significant fill-in or recovery. SPECTICLE 20WSP HERBICIDE controls weeds by inhibiting root development. Newly developing roots of desirable turf may also be affected. Factors, both biotic and abiotic, that weaken or thin turf include winterkill, spring dead spot, transitioning ryegrass, bermudagrass spring root decline, soil compaction, foliar and root diseases, nematodes, salt accumulation, shade, excessive foot or equipment traffic, and drought. Application of SPECTICLE 20WSP HERBICIDE to turf in these situations may delay turf recovery. SPECTICLE 20WSP HERBICIDE may be used on dormant turf. The user should assess the condition of turf prior to dormancy.

# **Turf Tolerance**

SPECTICLE 20WSP HERBICIDE can be used on the following turf types and their cultivars. Before making a large scale application to a cultivar not listed on this label, treat a small area of turf with SPECTICLE 20WSP HERBICIDE to assess acceptable turf tolerance.

# Warm season turfgrasses and their cultivars

- Bermudagrass\* (Cynodon dactylon) (and hybrids)-Baby, Celebration, Common, Floratex, GN1, Tifsport, Tifton 10, Tifway 419, Princess, Vamont, Riviera, Yukon
- Zoysiagrass (Zoysia spp.)-Cavalier, Crowne, DeAnza, El Toro, Empire, GNZ, Jamar, Meyer, Palisades, Zenith, Zeon
- · Centipedegrass\* (Eremochloa ophiuroides)- Tifblair
- St. Augustinegrass\* (Stenotaphrum secundatum)-Captiva, Floratam, Floratine, Palmetto, Raleigh
- Buffalograss (Buchloe dactyloides)
- Bahiagrass (Paspalum notatum)

\*Application of SPECTICLE 20WSP HERBICIDE may temporarily inhibit the rooting of stolons of bermudagrass, centipedegrass and St. Augustinegrass.

SPECTICLE 20WSP HERBICIDE may cause unacceptable injury to some turf types. <u>Do not use</u> on the following turf types or on turf that is a mixture containing any of these grasses, unless thinning or removal is desired.

- Creeping bentgrass (Agrostis palustris)
- Colonial bentgrass (Agrostis capillaris)
- Annual bluegrass (Poa annua)
- Roughstalk bluegrass (Poa trivialis)
- Fine fescue (Festuca rubra)
- Turf type tall fescue (Festuca arundinaceae)
- Kikuyugrass (Pennisetum clandestinum)
- Perennial ryegrass (Lolium perenne)
- Annual ryegrass (Lolium multiflorum)
- Kentucky bluegrass (Poa pratensis)
- Seashore paspalum (Paspalum vaginatum)
- Bermudagrass (Cynodon dactylon)- Ormond

		Acres treated	
	Application rate (oz/acre)	0.625 oz WSP Packet	2.5 oz WSP Packet
	1.2	0.52	2.08
	1.7	0.37	1.47
1 WSP Packet	2.3	0.27	1.09
I VVOF FACKET	3.125	0.2	0.8
	3.5	0.18	0.71
	3.75	0.17	0.67
	7	0.09	0.36

Maximum Single Application Rates for SPECTICLE 20WSP HERBICIDE on Warm Season Grasses

Turf Type	Application Rate Ounces of Product per Acre
Hybrid Bermudagrass	3.75
Common Bermudagrass	2.3
Zoysiagrass	3.75
Buffalograss	3.75
Bahiagrass	3.75
St. Augustinegrass	2.3
Centipedegrass	2.3

# Precautions for Use of SPECTICLE 20WSP HERBICIDE Near Sensitive Grasses

<u>CAUTION: SPECTICLE 20WSP HERBICIDE</u> can cause turf injury and stand reduction to sensitive grasses listed in the <u>Turf</u> Tolerance section of this label.

- SPECTICLE 20WSP HERBICIDE may affect sensitive grasses downslope from treated areas after excessive rainfall. To
  minimize off-target effects of SPECTICLE 20WSP HERBICIDE on sensitive grasses, irrigate after application as directed in the
  IRRIGATION AND WATERING AFTER APPLICATION section of this label and follow the directions below for specific
  situations.
- Allow turf to dry before allowing foot traffic or equipment through treated areas near sensitive grasses.

#### PRECAUTIONS AROUND GREENS CONTAINING COOL SEASON GRASS

- For applications of SPECTICLE 20WSP HERBICIDE adjacent to bentgrass greens and bermudagrass greens overseeded
  with roughstalk bluegrass (*Poa trivialis*) or other cool season grasses, follow the precautions above and provide an untreated
  buffer zone of at least 15 ft.
- Do not apply SPECTICLE 20WSP HERBICIDE on uphill slopes and adjacent to bentgrass or bermudagrass greens overseeded with cool season grasses such as Poa trivialis.

#### PRECAUTIONS FOR BERMUDAGRASS OVERSEEDED WITH RYEGRASS

• Do not apply SPECTICLE 20WSP HERBICIDE on annual and perennial ryegrass or on bermudagrass overseeded with ryegrass. Provide an untreated buffer zone of at least 15 ft between overseeded bermudagrass and treated areas.

#### PRECAUTIONS FOR USE NEXT TO OTHER SENSITIVE GRASSES

SPECTICLE 20WSP HERBICIDE may be applied in situations where warm season grasses such as bermudagrass are
adjacent to sensitive grasses such as tall fescue and perennial ryegrass. The applicator, however, must take care not to apply
SPECTICLE 20WSP HERBICIDE directly to sensitive grasses or injury may occur. Application of SPECTICLE 20WSP
HERBICIDE may be made adjacent to sensitive grasses such as ryegrass and tall fescue if the grass is established for at least
16 months. Maintain a distance of the length of one spray boom from the sensitive grass. Do not exceed 3.125 oz of
SPECTICLE 20WSP HERBICIDE in areas adjacent to sensitive grasses.

# Use Rates, Timings, and Maximum Seasonal Rate for SPECTICLE 20WSP HERBICIDE on Turf

Use 2.3-3.75 oz per acre of SPECTICLE 20WSP HERBICIDE for weed control in turf. Apply SPECTICLE 20WSP HERBICIDE in a single or multiple application program. The maximum single application rate of SPECTICLE 20WSP HERBICIDE is 3.75 oz per acre. The total amount of SPECTICLE 20WSP HERBICIDE applied in a 12-month period must not exceed 7 oz per acre. SPECTICLE 20WSP HERBICIDE can be applied in multiple seasons in a calendar year.

Factors to consider when deciding between single, split, and multiple application programs include:

- Weeds to be controlled
- Weed pressure
- Turf tolerance
- Length of residual control desired
- Soil texture

- Other herbicides used
- Mowing height
- Turf density
- Turf health

## Single Application Program

Use higher rates within the rate range when the site has historically higher weed pressure and when longer residual is desired. Use lower to medium rates on medium and coarse-textured soils, and higher rates on fine-textured soils.

Use Rates for Single Application of SPECTICLE 20WSP HERBICIDE

Target Weed	Rate Range (oz per acre) for SPECTICLE 20WSP HERBICIDE (single application)
Crabgrass	
Goosegrass	2.3-3.75
Annual bluegrass	
Broadleaf weeds	
Annual sedge and kyllinga	3.75

# **Split Application Program**

For extended residual control, use split applications. Make the follow-up application within 45-90 days of the initial application.

Use Rates for Split Applications of SPECTICLE 20WSP HERBICIDE

Target Weed	Rate Range (oz per acre) for SPECTICLE 20WSP HERBICIDE (initial application)	Rate Range (oz per acre) for SPECTICLE 20WSP HERBICIDE (follow-up application within 45-90 days)
Crabgrass		
Goosegrass	1.7-3.5	1.2-3.5
Annual bluegrass		
Broadleaf weeds	2.3-3.5	1.2-3.5
Annual sedge and kyllinga	3.5	2.3-3.5

# **Multiple Application Program**

For Crabgrass or Goosegrass control, a multiple application program may be used. Make the follow-up applications within 30-45 days of each application.

Use Rates for Multiple Applications of SPECTICLE 20WSP HERBICIDE

Target Weed	Rate Range (oz per acre) for SPECTICLE 20WSP HERBICIDE (initial application)	Rate Range (oz per acre) for SPECTICLE 20WSP HERBICIDE (follow-up application within 30-45 days)	Rate Range (oz per acre) for SPECTICLE 20WSP HERBICIDE (follow-up application within 30-45 days)
Crabgrass			
Goosegrass	1.2-1.7	1.2-1.7	1.2-1.7

# **CRABGRASS CONTROL**

SPECTICLE 20WSP HERBICIDE provides both pre-emergent and early post-emergent control of crabgrass. For pre-emergent activity SPECTICLE 20WSP HERBICIDE is not effective until activated by a minimum of 0.25 inches of rainfall or irrigation. For early post-emergence control apply SPECTICLE 20WSP HERBICIDE no later than the 1-2 leaf stage of crabgrass. Post-emergent activity of 1-2 leaf crabgrass is increased when SPECTICLE 20WSP HERBICIDE is combined with methylated seed oil (0.5% v/v). Use a minimum of 2.3 oz of SPECTICLE 20WSP HERBICIDE per acre for post-emergent control of 1-2 leaf crabgrass.

## **GOOSEGRASS CONTROL**

SPECTICLE 20WSP HERBICIDE provides pre-emergent control of goosegrass emerging from seed. SPECTICLE 20WSP HERBICIDE does not control perennial goosegrass (continual growth) or goosegrass emerging from existing crowns. If goosegrass is evident at the time of application, use a labeled post-emergent herbicide for control of existing plants.

#### ANNUAL BLUEGRASS CONTROL

Make pre-emergent applications of SPECTICLE 20WSP HERBICIDE between August and November depending on the germination of annual bluegrass in each geographical zone. The optimum timing is dependent on peak annual bluegrass germination and local conditions in a particular year.

Make post-emergent applications of SPECTICLE 20WSP HERBICIDE to control annual bluegrass two months after germination. Post-emergent control of tillered annual bluegrass can be achieved by combining SPECTICLE 20WSP HERBICIDE with labeled use rates of REVOLVER® Herbicide. Applications must be made prior to when the ground freezes.

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Addition of methylated seed oil (0.5% v/v) will increase post-emergent control.

#### **BROADLEAF WEED CONTROL**

SPECTICLE 20WSP HERBICIDE provides pre-emergent control of many broadleaf weeds. Control is affected by the size of the seed, and the depth of the seed within the soil profile. SPECTICLE 20WSP HERBICIDE must be activated by rainfall or irrigation prior to germination. Large seeded broadleaf weeds or weeds germinating deeper in the soil profile may not be effectively controlled by SPECTICLE 20WSP HERBICIDE.

#### ANNUAL SEDGES AND ANNUAL KYLLINGA CONTROL

SPECTICLE 20WSP HERBICIDE provides pre-emergent control of sedges and kyllinga emerging from seed. SPECTICLE 20WSP HERBICIDE does not control established perennial sedges and kyllinga, or sedges emerging from tubers (nutlets) including yellow or purple nutsedge.

# Tank-Mix Combinations with SPECTICLE 20WSP HERBICIDE on Turf

When tank-mixing with other products, it is the responsibility of the end-user/applicator to ensure that the tank-mix partner is registered in the state where the application is being made. Not all products are registered in all states; please verify state registration of tank mixed products in your state before selling, distributing, or using.

#### **Dormant, Non-Overseeded Turf**

Tank-mix combinations of SPECTICLE 20WSP HERBICIDE with a non-selective herbicide such as FINALE® will control existing weeds in dormant warm season grasses such as bermudagrass and zoysiagrass. Applied as a broadcast spray, SPECTICLE 20WSP HERBICIDE with FINALE will provide pre and post-emergent control of susceptible species listed on the respective labels of the two herbicides.

SPECTICLE 20WSP HERBICIDE may be applied in late winter at normal, regionally established timings for pre-emergent herbicides. SPECTICLE 20WSP HERBICIDE may be used in combination with RONSTAR® FLO, REVOLVER, or CELSIUS® to provide broad spectrum residual weed control. Follow use restrictions on all labels.

#### Non-Dormant, Non-Overseeded Turf

SPECTICLE 20WSP HERBICIDE cannot be used on warm season turf overseeded with cool season grasses. Tank-mix combinations of SPECTICLE 20WSP HERBICIDE with a selective post-emergent herbicide such as REVOLVER, CELSIUS, or SENCOR® provide pre and post-emergent control of weeds in non-overseeded, warm season turf common to both products. Follow use restrictions on all labels.

Broadleaf Weeds	
American black nightshade	Solanum americanum
Bittercress	Cardamine sp.
Black medic*	Medicago Iupulina
Buckwheat, wild	Polygonum convolvulus
California burclover	Medicago polymorpha
Canada thistle, common	Circium arvense
Chickweed, common	Stellaria media
Chickweed, mouse-ear	Cerastium vulgatum
Clover, white	Trifolium repens
Corn speedwell	Veronica arvensis
Cudweed, linear-leaf/purple	Gnaphalium purpureum
Curly dock	Rumex crispus
Dandelion, cat's ear	Hypochoeris radicata
Dandelion, common	Taraxacum officinale
Eclipta	Eclipta alba
Evening primrose, common	Oenothera biennis
Evening primrose, cutleaf	Oenothera laciniata
False chamomile*	Matricaria maritima
Filaree, redstem	Erodium cicutarium
Florida pusley	Richardia scabra
Groundsel, common	Senecio vulgaris
Hairy fleabane	Erigeron bonariensis
Hairy nightshade	Solanum sarrachoides

Henbit	Lamium amplexicaule	
Horseweed/ Marestail	Conyza canadensis	
Kochia	Kochia scoparia	Tail A
Lambsquarters, common	Chenopodium album	He C. In
Lawn burweed	Soliva sessilis	
Little mallow	Malva parviflora	
London rocket*	Sisymbrium irio	N-PAGE
Longstalked phyllanthus	Phyllanthus tenellus	
Mulberry weed	Fatousa villosa	ALC: NO
Mustard, black*	Brassica nigra	
Mustard, wild	Sinapis arvensis	
Parthenium	Parthenium hysterophorus	1 - 10
Pigweed, prostrate	Amaranthus blitoides	WELLS.
Pigweed, redroot	Amaranthus retroflexus	
Plantain, buckhorn	Plantago lanceolata	
Plantain, paleseed	Plantago virginica	
Prostrate knotweed	Polygonum aviculare	
Prostrate spurge	Euphorbia maculata	BIVICE
Puncturevine	Tribulus terrestris	
Purslane, common	Portulaca oleracea	
Ragweed, common*	Ambrosia artimisiifolia	
Spurge, spotted	Euphorbia maculate	
Tassel flower	Emilia sonchifolia	
Redmaids	Calandrinia spp	
Sesbania, hemp*	Sesbania exaltata	
Shepherd's-purse	Capsella bursa-pastoris	
Sida, prickly/teaweed*	Sida spinosa	
Southern brassbuttons*	Cotula australis	Act Inc.
Sowthistle, annual	Sonchus oleraceus	
Sunflower*, common	Helianthus annuus	
Swinecress	Coronopus didymus	
	Ageratum conyzoides	THE OF
Tropic ageratum		
Velvetleaf*	Abutilon theophrasti  Vicia benghalensis	
Vetch, purple*		
Wild carrot*	Daucus carota	
Willowherb	Epilobium brachycarpum	
Woodsorrel, yellow*	Oxalis stricta	
Woodsorrel/oxalis*	Oxalis sp	
CDASSES MONOCOTS AND SERVES		
GRASSES, MONOCOTS, AND SEDGES	Pop annua	
Annual bluegrass/ 'Poa'	Poa annua	
Annual kyllinga	Cyperus sesquiflorus	
Barnyardgrass, common	Echinochloa crus-galli	
Cheatgrass	Bromus secalinus	
Crabgrass	Digitaria sp	
Crabgrass, Henry	Digitaria ciliaris	
Crabgrass, large/hairy	Digitaria sanguinalis	
Crabgrass, smooth	Digitaria ischaemum	
Doveweed	Murdannia nudiflora	
Foxtail brome	Bromus rubens	
Foxtail, giant	Setaria faberi	Mark State

Foxtail, green	Setaria viridis	
Foxtail, yellow	Pennisetum glaucum	
Goosegrass	Eleusine indica	
Guineagrass	Panicum maximum	
Kyllinga, fraqrant/annual	Kyllinga odorata	The First
Mouse barley	Hordeum murinum	
Nutsedge, purple*	Cyperus rotundus	
Nutsedge, yellow*	Cyperus esculentus	
Red brome	Bromus rubens	
Rice flatsedge	Cyperus iria	
Ryegrass, Italian	Lolium multiflorum	
Ryegrass, perennial	Lolium perenne	
Sandbur	Cenchrus longispinus	
Sedge, annual***	Cyperus spp.	
Tufted lovegrass	Eragrostis pectinacea	

<sup>\*</sup> Weeds suppressed by SPECTICLE 20WSP HERBICIDE

# Seeding, Overseeding, Re-Seeding, Sprigging and Sodding

#### SEEDING, RE-SEEDING, AND OVERSEEDING

Timing of seeding, re-seeding, overseeding, sprigging, and sodding turf relative to an application of SPECTICLE 20WSP HERBICIDE needs to be tracked carefully. SPECTICLE 20WSP HERBICIDE can inhibit root development, as well as the emergence of seed. Roots of newly emerged seedlings may be damaged and establishment of sod may be affected if SPECTICLE 20WSP HERBICIDE is applied to turf that is not well established.

# Application of SPECTICLE 20WSP HERBICIDE prior to overseeding bermudagrass with perennial ryegrass or reseeding into warm season turf

SPECTICLE 20WSP HERBICIDE may be used to control weeds in bermudagrass prior to overseeding with a cool season grass or reseeding seeded cultivars of bermudagrass, provided that the interval between application and seeding is appropriate (See INTERVAL BETWEEN APPLICATION OF SPECTICLE 20WSP HERBICIDE AND SEEDING OR OVERSEEDING table below.) Overseeding and re-seeding intervals are affected by the rate of SPECTICLE 20WSP HERBICIDE applied, rainfall, and soil texture in a given year. Applications made sooner than the suggested intervals may decrease the establishment of the new seedlings and reduce turf coverage.

NTERVAL BETWEEN APPLICATION OF SPECTICLE 20WSP HERBICIDE AND SEEDING OR VERSEEDING		
RATE OF SPECTICLE 20WSP HERBICIDE (OZ/A)	MINIMUM OVERSEEDING INTERVAL	
1.7-2.3	10 months	
2.3-3.5	12 months	

# WARM SEASON GRASSES ESTABLISHED WITH SPRIGS

SPECTICLE 20WSP HERBICIDE may be applied to sprigs of warm season grasses. The sprigs need to be well rooted prior to application. Apply the herbicide no sooner than 16 months after sprigging to allow for good stand establishment. Prior to application, check rooting to make sure new roots are developing. If roots are not growing, delay application of SPECTICLE 20WSP HERBICIDE.

# APPLICATIONS ON SOD FARMS

SPECTICLE 20WSP HERBICIDE may be applied to sod on Bermudagrass, zoysiagrass, and bahiagrass sod farms. During new sod establishment, SPECTICLE 20WSP HERBICIDE may be applied when coverage from ribbons is 80% or greater.

Do not apply SPECTICLE 20WSP HERBICIDE to centipedegrass, seashore paspalum, or St. Augustinegrass sod.

<sup>\*\*</sup>Higher labeled rates should be used if weed pressure is historically high or longer residual control is desired (See Use Rates in the SPECTICLE 20WSP HERBICIDE chart). The rate chosen should not exceed the tolerance for an individual turf type. Weed control can also be achieved with multiple applications of SPECTICLE 20WSP HERBICIDE. Do not exceed a total of 7 oz per acre per year with multiple applications.

<sup>\*\*\*</sup>SPECTICLE 20WSP HERBICIDE only controls sedges and annual kyllinga emerging from seed. It does not control perennial sedge emerging from nutlets or perennial forms of kyllinga.

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SPECTICLE 20WSP HERBICIDE may be applied to sod up to 4 months prior to harvest.

## SODDING WARM SEASON GRASSES

Delay sodding into bare ground or turf treated with SPECTICLE 20WSP HERBICIDE until 6 months after application. Sodding before 6 months may inhibit stand establishment and reduce turf quality. For maximum establishment of sod, follow the directions for use of activated charcoal above.

Sod needs to be actively growing/established at least 3 months prior to an application of SPECTICLE 20WSP HERBICIDE. Prior to application, check the turfgrass sod to make sure new roots are developing. If roots are not growing, delay application of SPECTICLE 20WSP HERBICIDE.

# ORNAMENTALS, CHRISTMAS TREES, AND CONIFER PLANTATIONS

SPECTICLE 20WSP HERBICIDE may be applied for pre-emergent weed control in landscape ornamentals, hedgerows, production ornamentals in outdoor nurseries, shadehouses, hoop houses, Christmas trees, and conifer plantations. Apply SPECTICLE 20WSP HERBICIDE as a directed spray, prior to weed seed germination to the soil surface around dormant or actively growing ornamentals as listed in the table below. Ornamentals should be established for at least 4 months prior to applying SPECTICLE 20WSP HERBICIDE.

# USE RESTRICTIONS FOR SPECTICLE 20WSP HERBICIDE ON LANDSCAPE AND PRODUCTION ORNAMENTALS, CHRISTMAS TREES, AND CONIFERS

- . Do not exceed the maximum single application rates specified under each Ornamental use.
- Do not exceed a total of 7 oz of SPECTICLE 20WSP HERBICIDE per acre in a 12 month period.
- Do not allow spray to contact foliage. SPECTICLE 20WSP HERBICIDE may cause localized injury to the foliage, especially
  young leaf tissue. If the spray should contact the foliage, remove affected foliage or wash off immediately.
- Do not use SPECTICLE 20WSP HERBICIDE around bedding plants (annuals and herbaceous plants not specified, or not listed as tolerant on this label) or in areas where bedding plants may be planted or seeded for a minimum of one year after application of SPECTICLE 20WSP HERBICIDE to a landscape bed.
- Do not apply SPECTICLE 20WSP HERBICIDE during windy conditions where it might contact desirable foliage.
- Do not use SPECTICLE 20WSP HERBICIDE around bearing fruit and nut trees. Applications of SPECTICLE 20WSP
  HERBICIDE may be made outside the dripline of bearing trees or vines in residential situations. SPECTICLE 20WSP
  HERBICIDE may be used around non-bearing trees or vines if they are at least 1-year old (citrus) and 3-years old (all others).
   Non bearing trees are defined as trees that will not bear fruit until at least 1 year after treatment.
- Do not mix SPECTICLE 20WSP HERBICIDE into the soil. Cultivating or disturbing the soil surface after application may reduce weed control activity.
- Avoid applying SPECTICLE 20WSP HERBICIDE to heavily mulched landscape beds, as reduced weed control may occur.
   For best results remove existing mulch and replace mulch after an application of SPECTICLE 20WSP HERBICIDE.
- If transplanting mature plants listed as tolerant on this label into soil treated with SPECTICLE 20WSP HERBICIDE within the
  preceding 12 months, discard existing soil from the planting hole and add new soil around roots to minimize effects on plant
  establishment.
- Do not use SPECTICLE 20WSP HERBICIDE on ornamentals being grown in a greenhouse.
- Do not use SPECTICLE 20WSP HERBICIDE on nursery seedbeds, rooted cuttings or young plants in liners.
- Do not apply to ornamentals growing in containers except pot-in-pot ornamentals.
- Do not apply SPECTICLE 20WSP HERBICIDE to ornamental bulbs in production fields.
- Do not apply SPECTICLE 20WSP HERBICIDE to ornamental bulbs in landscapes, commercial fields, or residential sites while they are emerging or after they have emerged.
- Do not apply SPECTICLE 20WSP HERBICIDE to herbaceous perennials (e.g. hosta) while they are emerging or after they
  have emerged.
- Do not apply over-the-top of ornamentals.
- . Do not apply SPECTICLE 20WSP HERBICIDE to budded grafts as this could cause plant injury or death.
- Do not apply SPECTICLE 20WSP HERBICIDE by air.

## SYMPTOMS OF SPECTICLE 20WSP HERBICIDE INJURY ON ORNAMENTALS

SPECTICLE 20WSP HERBICIDE may injure sensitive ornamentals by damaging roots or leaves. Plant foliage damaged by root absorption will appear stunted, deformed and may not recover. If SPECTICLE 20WSP HERBICIDE is allowed to contact leaves, leaf symptoms including leaf spot, leaf discoloration, and leaf curl may appear. Symptoms appear within several days after application. Leaves formed after appearance of symptoms may recover.

Users must assess the severity of any symptoms on cultivars not listed on this label, before proceeding with large scale applications of SPECTICLE 20WSP HERBICIDE. The user assumes all responsibility for damage on cultivars not listed on this label.

# Use rates of SPECTICLE 20WSP HERBICIDE on Landscape Ornamental /Production Ornamental/Conifers and Christmas trees/ Ornamental production facilities/ Hardscapes

	Application rate (oz/acre)	Acres treated		
18 M = 1/1 M		0.625 oz WSP Packet	2.5 oz WSP Packet	
	2.3	0.27	1.09	
	2.9	0.22	0.86	
1 WSP	3.5	0.18	0.71	
Packet	4.6	0.14	0.54	
	6	0.1	0.42	
TA SERVE	7	0.09	0.36	

# LANDSCAPE ORNAMENTAL USES

SPECTICLE 20WSP HERBICIDE may be used in residential, commercial, as well as federal, state and local plantings of ornamentals and hedgerows for pre-emergent weed control. SPECTICLE 20WSP HERBICIDE should be applied as a directed spray only to established (rooted) plants and not to newly rooted cuttings or seedlings. To avoid root damage, apply SPECTICLE 20WSP HERBICIDE around transplants when the soil has firmly settled around the root area. Irrigation or rainfall will help to settle the soil and seal surface cracks. Make applications prior to mulching for best weed control. If SPECTICLE 20WSP HERBICIDE should contact foliage, wash off immediately to avoid damage. Herbaceous annuals and perennials are sensitive to SPECTICLE 20WSP HERBICIDE. Applications of SPECTICLE 20WSP HERBICIDE should only be made to ornamentals listed on this label.

**AMOUNT TO USE:** Apply SPECTICLE 20WSP HERBICIDE as a broadcast, directed spray at 2.3-4.6 oz/acre around ornamentals. When applying SPECTICLE 20WSP HERBICIDE with a backpack sprayer, follow all above restrictions.

To activate SPECTICLE 20WSP HERBICIDE for maximum herbicidal benefit, irrigate the area treated with SPECTICLE 20WSP HERBICIDE to move the herbicide into the soil within several days after application. With dry soil, use a minimum of 0.25 inches of irrigation water, and with soil at or greater than field capacity, the amount of irrigation water should be reduced. In either case, do not create conditions that cause visible run-off of irrigation water. Adequate rainfall following an application will negate the need for irrigation.

A subsequent application of SPECTICLE 20WSP HERBICIDE can be made within 90 days after the initial application to extend weed control provided that the maximum allowed rate does not exceed 7 oz per acre in a 12 month period.

# COMBINATIONS OF SPECTICLE 20WSP HERBICIDE WITH NON-SELECTIVE HERBICIDES AROUND ORNAMENTALS

Remove existing weed growth before application of SPECTICLE 20WSP HERBICIDE or use a post-emergence herbicide labeled for control. SPECTICLE 20WSP HERBICIDE may be used in combination with a non selective herbicide such as FINALE. Avoid contact of spray containing a non-selective herbicide with foliage, stems, green bark, or bare roots of turfgrasses, trees, shrubs, or other desirable vegetation, since severe damage may result. If spraying areas adjacent to desirable plants with a non-selective herbicide, use a shield while spraying to help prevent spray from contacting foliage of desirable plants.

When tank-mixing with other products, it is the responsibility of the end-user/applicator to ensure that the tank-mix partner is registered in the state where the application is being made.

# PRODUCTION ORNAMENTAL USES

SPECTICLE 20WSP HERBICIDE provides up to 8 months of weed control with a single application. The exact length of control depends on many environmental factors as well as the weeds to be controlled and the weed pressure. Apply SPECTICLE 20WSP HERBICIDE as a directed spray to the soil surface only to established (rooted) plants in the soil or in pots and not to newly rooted cuttings/or seedling beds in production nurseries. Do not apply SPECTICLE 20WSP HERBICIDE to newly rooted cuttings/or seedling beds. To avoid root damage, apply SPECTICLE 20WSP HERBICIDE around transplant when the plant is well established and the soil has firmly settled around the root area. Irrigation or rainfall will help to settle the soil and seal surface cracks. Apply SPECTICLE 20WSP HERBICIDE around dormant plants. If applied after dormancy, care should be taken not to contact expanding buds or new leaves. Applications of SPECTICLE 20WSP HERBICIDE should only be made to ornamentals listed on this label. SPECTICLE 20WSP HERBICIDE should be applied to soil free of weeds, debris, and soil clods for optimum efficacy. Herbicidal efficacy may be reduced if soil is disturbed after application.

SPECTICLE 20WSP HERBICIDE may be applied as single or split applications to container grown deciduous ornamentals. Application of SPECTICLE 20WSP HERBICIDE to deciduous foliage or green bark may result in unacceptable injury. Apply SPECTICLE 20WSP HERBICIDE to established ornamentals. If the grower is uncertain about ornamental establishment after transplanting, wait 2 months before applying SPECTICLE 20 WSP HERBICIDE.

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**AMOUNT TO USE:** Apply SPECTICLE 20WSP HERBICIDE as a broadcast, directed spray at 2.9-6 oz per acre (0.067-0.138 oz per 1,000 sq ft) around ornamentals in 20-100 gallons of water per acre (0.5-2.3 gallons of water per 1,000 sq ft). When applying SPECTICLE 20WSP HERBICIDE with a backpack sprayer, follow all above restrictions.

To activate SPECTICLE 20WSP HERBICIDE for maximum herbicidal benefit, irrigate the area treated with SPECTICLE 20WSP HERBICIDE to move the herbicide into the soil within several days after application. With dry soil, use a minimum of 0.125-0.25 inches of irrigation water. With soil at or greater than field capacity, reduce the amount of irrigation water. In either case, do not create conditions that cause visible run-off of irrigation water. Adequate rainfall following an application will negate the need for irrigation.

A subsequent application of SPECTICLE 20WSP HERBICIDE can be made within 90 days after the initial application provided that the maximum allowed rate does not exceed 7 oz per acre in a 12 month period.

# COMBINATIONS OF SPECTICLE 20WSP HERBICIDE WITH NON SELECTIVE HERBICIDES AROUND ORNAMENTALS

Remove existing weed growth before application of SPECTICLE 20WSP HERBICIDE or use a post-emergence herbicide labeled for control. SPECTICLE 20WSP HERBICIDE may be used in combination with a non selective herbicide such as FINALE. Avoid contact of spray containing a non-selective herbicide with foliage, stems, green bark, or bare roots of turfgrasses, trees, shrubs, or other desirable vegetation, since severe damage may result. If spraying areas adjacent to desirable plants with a non-selective herbicide, use a shield while spraying to help prevent spray from contacting foliage of desirable plants.

Do not apply SPECTICLE 20WSP HERBICIDE to plant types not listed as tolerant on this label. SPECTICLE 20WSP HERBICIDE may be applied to cultivars of listed tolerant plants that are not listed on this label. Prior to large scale applications, treat a small number of such plants at the desired use rate. Treated plants should then be evaluated 1 to 2 months after application for possible injury and acceptable tolerance.

**IMPORTANT:** Direct application of SPECTICLE 20WSP HERBICIDE to the soil surface and away from plant foliage and bark. Avoid direct spray contact on plant surfaces, foliage and green bark or injury may result. Application of SPECTICLE 20WSP HERBICIDE after bud swell may cause injury if herbicide contacts foliage. Avoid application under environmental conditions that favor drift to non-targeted areas. Deep cultivation reduces the effectiveness of SPECTICLE 20WSP HERBICIDE and should be avoided.

## ORNAMENTALS AND THEIR CULTIVARS TOLERANT TO SPECTICLE 20WSP HERBICIDE

Tolerant ornamentals and their cultivars are listed in the following table. If a cultivar to be treated is not listed on this label, treat several plants of the cultivar at the single maximum desired use rate and evaluate 1-2 months later for possible injury and acceptable tolerance. The user assumes responsibility for application on cultivars not listed in this table. If a plant type (designated by genus and/or species) is not listed on this label, do not apply SPECTICLE 20WSP HERBICIDE.

Common Name	Scientific Name	Cultivar
Abelia	Abelia grandiflora	
Arborvitae	Thuja sp.	Green Giant
Arborvitae	Thuja sp.	Nigra
Asparagus Fern	Asparagus plumosus	
Azalea	Rhododendron sp.	Girard's Rose
Azalea	Rhododendron sp.	Fashion
Azalea	Rhododendron sp.	VF 14
Azalea	Rhododendron sp.	Golden Torch
Azalea, Encore	Rhododendron sp.	Autumn Debutante
Black Tupelo	Nyssa sylvatica	
Bluebird	Caryopteris x clandonensis	Dark Knight
Boxwood	Buxus microphylla	Green Beauty
Boxwood	Buxus microphylla	Baby Gem
Butterfly Bush	Buddleia	Nanho Blue
Camellia	Camellia japonica	Margaret Heathcliff Pink
Camellia	Camellia sasangua	Cleopatra Pink
Cedar, Atlantic white	Chamaecyparis sp.	
Cedar, Japanese	Cryptomeria japonica	Black Dragon
Cedar, Japanese	Cryptomeria japonica	Yoshino
Cotoneaster	Cotoneaster	Coral Beauty
Cypress, false	Chamaecyparis sp.	Gold Mops
Cypress, Mediterranean	Cupressus sempervirens	
Daphne	Daphne caucasica	Summer Ice
Day-lily (before unfurling)	Hemerocallis sp.	Green Flutter
Day-lily (before unfurling)	Hemerocallis sp.	Stella d'Oro
Elm, American	Ulmus Americana	
Florida Pipestem	Leucothoe populifolia	
Forsythia	Forsythia	Lynwood
Fragrant tea olive	Osmanthus fragrans	
Gardenia	Gardenia radicans	Radicans

Gardenia	Gardenia jasminoides	Mystery
Gardenia	Gardenia jasminoides	Frostproof
Gaura	Gaura lindheimeri	Pink Fountain
Gold-Dust Plant	Aucuba japonica	Gold Dust
Green Ash	Fraxinus pennsylvanica	
Hardy Kiwi	Actinidia arguta	Anna
Hibiscus, Chinese	Hibiscus rosa-sinensis	San Diego Red
Holly, Chinese	llex cornuta	Needlepoint
Holly, Gallberry	llex glabra	Densa
Holly, Meservae	llex meservae	Blue Princess
Holly, Sky Pencil	llex sp.	Sky Pencil
ndian Hawthorn	Raphiolepsis indica	Pink Lady
Japanese Clevera	Ternstromia gymnanthera	
Japanese Mock-orange	Pittosporum tobira	Variegata
Jasmine, Asiatic/Yellow Star	Trachelospermum asiaticum	
Jasmine, winter	Jasminum nudiflorum	
Juniper, Bar Harbour	Juniperus horizontalis	Bar Harbour
Juniper, Blue Pacific	Juniperus conferta	Blue Pacific
Juniper, Blue Rug	Juniperus horizontalis	Blue Rug
Lantana	Lantana camara	Landmark Sunrise Rose
ilac	Syringa x 'Penda'	Bloomerang
Loropetalum	Loropetalum chinensis	Burgundy
Loropetalum	Loropetalum chinensis	Ruby
Maple, red	Acer rubrum	
Maple, sugar	Acer saccharum	
Muhlygrass	Muhlenbergia capillaries	
Nandina sp.	Nandina	Firepower
Podocarpus	Podocarpus macrophyllus	
Rose	Rosa sp.	Pink Knockout®
Rose	Rosa sp.	Knockout®
Rose, Virginia	Rosa virginiana	
Rose Mallow	Hibiscus moscheutos	
Rose of Sharon	Hibiscus syriacus	Pink Heart
Russian sage	Perovskia atriplicifolia	
Snowberry, common	Smyphoricarpos albus	
Sweet Olive	Osmanthus fragrans	
Thin-fruit Sedge	Carex flaccosperma	
Viburnum, Burkwood	Viburnum x burkwoodii	
Viburnum, popcorn	Viburnum plicatum	Popcorn
Wax myrtle, southern	Myrica cerifera	
Weigelia, variegated	Weigelia variegate	
Yew podocarpus	Podocarpus macrophyllus	COLUMN TO PROPER THE PROPERTY OF THE PROPERTY

Do not use SPECTICLE 20WSP HERBICIDE on any of these plants, as injury will occur.

Common Name	Scientific Name	
Blue Fescue Grass	Festuca glauca	
Columbine	Aquilegia Canadensis	
Coneflower	Echinacea purpurea	
Croton	Codiaeum variegatum	
Dianthus	Dianthus sp.	
Euonymus, Japanese	Euonymus japonicus	
Fountain Grass	Pennisetum alopecuroides	
Fountain Grass, purple	Pennisetum setaceum	
Golden Dewdrops	Duranta erecta	
Hydrangea	Hydrangea macrophylla	
Lavender, Munstead	Lavandula angustifolia	
Lilyturf	Liriope sp.	
Mint	Mentha sp.	
Mondo Grass	Ophiopogon japonicus	



Sage	Salvia sp.p	
Tickseed, Dwarf mouse-ear	Coreopsis auriculata	

# **CONIFERS AND CHRISTMAS TREES**

SPECTICLE 20WSP HERBICIDE may be used for pre-emergence weed control in conifer nurseries and Christmas tree farms. SPECTICLE 20WSP HERBICIDE may be applied as a directed spray to soil surrounding established plants. Avoid contacting plant stems and leaves with the directed spray solution as injury may occur. Established plants are transplants that are actively growing and where the soil has settled. Do not apply to seedlings or seedling beds. Apply 2.9-6 oz of SPECTICLE 20WSP HERBICIDE per acre for these uses. Do not exceed 7 oz of SPECTICLE 20WSP HERBICIDE per acre in a growing season.

SPECTICLE 20WSP HERBICIDE may be tank-mixed with products containing the following active ingredients labeled for use in conifers: glyphosate or glufosinate (FINALE). Do not apply tank-mixes of SPECTICLE 20WSP HERBICIDE with these active ingredients to conifer and Christmas tree foliage. Follow use restrictions on all labels.

# NON-SELECTIVE USES HARDSCAPES

SPECTICLE 20WSP HERBICIDE may be used to maintain bare ground in non-crop areas. These include gravel areas as well as rocky/sandy areas in desert climates, and cart paths adjacent to golf courses and residential areas. All weeds and debris should be removed from the bed area to be treated for optimum control. Observe all restrictions and tolerances for applications of SPECTICLE 20WSP HERBICIDE around ornamentals listed on this label.

Apply 3.5-7 oz of SPECTICLE 20WSP HERBICIDE per acre with uniform coverage to target area. Use a minimum spray volume of 10-20 gallons per acre.

If weeds are present at the time of application, tank-mix a post-emergent herbicide such as Finale with SPECTICLE 20WSP HERBICIDE. Observe all use restrictions on this label and on the label of the tank-mix partner. Adequate irrigation or rainfall after application of SPECTICLE 20WSP HERBICIDE will provide maximum weed control.

#### ORNAMENTAL PRODUCTION FACILITIES

SPECTICLE 20WSP HERBICIDE may be used in non-enclosed ornamental production facilities such as, greenhouses (floors only), areas covered by landscape fabric in hoophouses, lathhouses and shadehouses to provide bare ground and general weed control beneath benches and potted plants. SPECTICLE 20WSP HERBICIDE may injure the foliage of ornamentals; prevent spray from contacting foliage. Make applications to these sites during clean up, sanitation and preparation prior to plant production. Apply 7 oz product per acre with uniform coverage to target area. Use a minimum spray volume of 20 gallons per acre.

If weeds are present at the time of application, tank-mix a post-emergent herbicide such as Finale with SPECTICLE 20WSP HERBICIDE. Observe all use restrictions on this label and on the label of the tank-mix partner. Water in SPECTICLE 20WSP HERBICIDE after application and allow applied surface to dry prior to introducing plants. For outdoor applications, containers can be moved onto the treated ground bed areas after irrigation or rainfall and once the treated surface has dried.

Do not mix with products containing chlorine bleach products. When tank-mixing with other products, it is the responsibility of the end-user/applicator to ensure that the tank-mix partner is registered in the state for the application being made.



# IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

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## **NET CONTENTS:**

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# ACCEPTED

MAY -8 2012

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 432-1499

#### PRODUCED FOR



# Bayer Environmental Science

A Division of Bayer CropScience, LP PO Box 12014 2 T.W. Alexander Drive Research Triangle Park, NC 27709

SPECTICLE 20WSP HERBICIDE (Pending) 02/22/2012, 04/23/2012, 05/02/2012, 05/03/2012