

707-245

10/18/2000

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Ann M. Tillman, Ph.D.
Product Registration Manager
Agricultural Chemicals Registration
and Regulatory Affairs
Rohm and Haas Company
100 Independence Mall West
Philadelphia, PA 19106

OCT 18 2000

Dear Dr. Tillman:

Subject: DIMENSION® Turf and Ornamental Herbicide
EPA Registration No. 707-245
Applications and Your Letter Dated October 2, 2000,
Request To Amendment Labeling by Revising Statements
of Practical Treatment Section To Comply with
PR Notice 2000-3
Overseeding and Sprigging Section of Labeling

The proposed labeling amendment requested in the subject application to amend the registration of "Dimension® Turf and Ornamental Herbicide" has been reviewed and found acceptable under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended, provided that you:

- o Submit one (1) copy of the final printed label prior to before you release the product for shipment under the subject amended labeling.

If this condition is not complied with, this registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment of this product constitutes acceptance of this condition.

A stamped copy of the proposed label is enclosed for your records.

Sincerely yours,

Eugene I. Miller
for Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

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14970-M15
9/22/00

DIMENSION®

TURF and ORNAMENTAL HERBICIDE

**ROHM
HAAS** 
PHILADELPHIA, PA 19106
Tel: (215) 592-3000

DIMENSION is a selective herbicide formulated as an emulsifiable concentrate that provides control of listed annual grasses and broadleaf weeds in established lawns, commercial sod farms, ornamental turf (including golf course fairways, roughs, tee boxes, and putting greens) and landscape ornamentals.

In New York State this product may only be used by professional applicators at no more than two quarts (0.5 pounds active ingredient) per acre per year and is prohibited from use in Nassau and Suffolk Counties

Optional Statement:

*IN THE STATE OF CALIFORNIA NOT FOR USE ON GOLF COURSE FAIRWAYS, ROUGHS,
TEE BOXES AND PUTTING GREENS.*

ACTIVE INGREDIENT

*Dithiopyr, 3,5-pyridinedicarbothioic acid, 2-(difluoromethyl)-
4-(2-methylpropyl)-6-(trifluoromethyl)- S,S-dimethyl ester-----12.7%

INERT INGREDIENTS-----87.3%
100.0%

Contains petroleum distillates

*Contains 120 grams per litre or 1 pound per U.S. gallon of the active ingredient.
Product protected by U.S. Patent No. 4,692,184. Other patents pending

EPA REG NO. 707-245

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT 18 2000
**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
707-245**

REFORMULATION OR REPACKAGING IS PROHIBITED

NOTICE: Before using this product, read the entire Precautionary Statements, Conditions of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product unopened within thirty days of purchase to the place of purchase.

KEEP OUT OF REACH OF CHILDREN

WARNING AVISO

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

FIRST AID	
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 treatment advice.
IF ON SKIN OR 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 treatment advice.
IF SWALLOWED	<ul style="list-style-type: none"> Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
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 a 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 Rohm and Haas Company 215-592-3000 day or night, for emergency treatment information.	
NOTE TO PHYSICIAN	
Contains petroleum distillate - vomiting may cause aspiration pneumonia.	

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING

CAUSES SUBSTANTIAL BUT TEMPORARY EYE INJURY.

CAUSES SKIN IRRITATION.

HARMFUL IF SWALLOWED.

MAY CAUSE RESPIRATORY TRACT IRRITATION.

MAY CAUSE ALLERGIC SKIN REACTION.

Do not get in eyes, on skin, or on clothing. Avoid breathing vapors or spray mist.

Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category **G** on an EPA chemical-resistance category selection chart.

Applicators and other handlers (other than mixers or loaders) must wear:

- Coveralls over short-sleeved shirt and short pants
- Socks
- Chemical resistant footwear
- Protective eyewear
- Chemical-resistant gloves such as Barrier Laminate or Viton ≥ 14 mils

Mixers and Loaders must wear:

- Coveralls over short-sleeved shirt and short pants
- Socks
- Chemical resistant footwear
- Protective eyewear
- Chemical-resistant gloves such as Barrier Laminate or Viton ≥ 14 mils
- Chemical-resistant apron

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (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

User should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and highly toxic to other aquatic organisms including oysters and shrimp. Use with care when applying to turf areas adjacent to any body of water. Drift and runoff from treated turf may adversely affect aquatic organisms in adjacent aquatic sites. 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. Do not contaminate water when disposing of equipment washwaters.

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DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and 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.

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 over short-sleeved shirt and short pants
- Socks
- Chemical resistant footwear
- Protective eyewear
- Chemical-resistant gloves such as Barrier Laminate or Viton ≥ 14 mils

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 treated area until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE- Store this product only in its original container in a dry, cool, secured storage area. Store this product above 32 °F to avoid crystallization. If crystals form or product freezes, move product to area with ambient temperature above 32 °F and shake well until crystals have dissolved.

PRODUCT DISPOSAL- Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

EMPTY CONTAINER DISPOSAL- Do not reuse emptied container. Observe all label safeguards until container is triple rinsed. Emptied container retains vapor and product residue. Triple rinse container, then puncture and 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.

SPILL- In case of spill, observe all protective and safety precautions when cleaning up spills. Dispose of material according to "product disposal" directions listed above.

CONDITIONS OF SALE AND WARRANTY

Rohm and Haas warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. **ROHM AND HAAS MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.** Handling, storage and use of the product by Buyer or User are beyond the control of Rohm and Haas and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property or failure to follow label directions will be assumed by the Buyer or User. **IN NO CASE WILL ROHM AND HAAS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.**

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GENERAL INFORMATION FOR PROFESSIONAL TURF USE

This product is not recommended for application by homeowners.

DIMENSION is a selective herbicide that provides control of crabgrass and other annual grasses and broadleaf weeds in established lawns, commercial sod farms and ornamental turfs, including golf course fairways, roughs, tee boxes, and putting greens.

This product will not harm nearby established ornamentals when used according to label directions.

USE PRECAUTIONS FOR PROFESSIONAL TURF USE

Turfgrass Safety

This product may be used on seeded, sodded, or sprigged lawns and ornamental turfs that are well-established. The grass must have developed a good root system and a uniform stand, and have received at least two mowings following its seeding, sodding, or sprigging before it can receive its first application of this product.

Use of this product on turf that is not well-established, or has been weakened by weather-, pest-, disease-, chemical-, mechanical or other related stress, may result in turf injury.

This product should only be applied to turf that is composed of the following turfgrass species that have been determined to be tolerant to applications of this product.

When applied as directed under the conditions described, the following established turfgrasses are tolerant to this product (see the "Golf Course Putting Greens" precautions section for additional turfgrass safety information):

Cool-Season Grasses

Bentgrass, creeping*	<i>Agrostis palustris</i>
Bluegrass, Kentucky	<i>Poa pratensis</i>
Fescue, Fine**	<i>Festuca rubra</i>
Fescue, Tall	<i>Festuca arundinacea</i>
Ryegrass, Perennial	<i>Lolium perenne</i>

Warm-Season Grasses

Bahiagrass	<i>Paspalum notatum</i>
Bermudagrass***	<i>Cynodon dactylon</i>
Buffalograss****	<i>Buchloe dactyloides</i>
Carpetgrass	<i>Axonopus affinis</i>
Centipedegrass	<i>Eremochloa ophiuroides</i>
Kikuyugrass	<i>Pennisetum clandestinum</i>
Seashore Paspalum	<i>Paspalum vaginatum</i>
St. Augustinegrass	<i>Stenotaphrum secundatum</i>
Zoysiagrass	<i>Zoysia japonica</i>

- * Use of this product is not recommended on certain varieties of creeping bentgrass, such as 'Cohansey', 'Carmen', 'Seaside', and 'Washington' as undesirable turfgrass injury may result. Not all varieties of creeping bentgrass have been tested.

DO NOT apply this product to Colonial bentgrass (*Agrostis tenuis*) varieties.

- ** Use of this product on certain varieties of fine fescue is not recommended as use may result in undesirable turf injury. The following fine fescue varieties have been found to be sensitive to this product: 'Atlanta', 'Banner', 'Beauty', 'Bilgart', 'CF-2', 'Enjoy', 'HF-93', 'Highlight', 'Ivalo', 'Jamestown', 'Koket', 'Majenta', 'Mary', 'Pennlawn', 'Tamara', 'Tatjana', 'Waldorf', and 'Waldina'. Not all varieties of fine fescue have been tested.
- *** Use of this product on 'Tifgreen' (328) hybrid bermudagrass greens is not recommended as use may result in undesirable turfgrass injury.
- **** DO NOT use this product on seedling buffalograss in the spring of the first year of establishment until the turfgrass is fully green and has established new roots.

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Reseeding, Overseeding, or Sprigging

Reseeding, overseeding, or sprigging of treated areas within 3 months after a single application of this product, or 4 months after a split application program totaling more than 1.5 fl oz/1000 sq ft (2 qts. a), may inhibit the establishment of desirable turfgrasses.

Overseeding Bermudagrass with perennial ryegrass may be made 8 weeks after an application of this product.

When reseeding or overseeding, proper cultural practices such as soil cultivation, irrigation and fertilization should be followed. For best results, use mechanical or power seeding equipment (slit seeders) designed to give good seed to soil contact.

Golf Course Putting Greens

Putting greens should be well-drained and managed to promote the development of deep rooting systems. The use of this product on greens without good root development may result in undesirable turfgrass injury.

Application of this product to overseeded greens should be made less than four weeks before the transition period from overseeded turfgrass back to established turfgrass.

Do not apply this product to golf course putting greens that are under stress. High temperatures cause stress to greens increasing the risk of turfgrass injury. Do not use this product if *Poa annua* cover is desirable.

Use of this product on 'Tifgreen' (328) hybrid bermudagrass greens may result in undesirable turfgrass injury.

DO NOT apply this product to Colonial bentgrass greens.

For additional margins of turfgrass safety on greens and where consistent with local use guides, consider the use of split applications (made at rates equal to one-half of the Program 3 single application use rate recommended for your region in Table 1 on this label) spaced 6-8 weeks apart.

DO NOT tank-mix this product with other products (other than marking dyes or foams) for application to greens.

DO NOT use this product on Putting Greens that have been treated within four weeks with a plant growth regulator.

DO NOT apply this product in the fall before covering greens for winter protection.

Properly calibrate application equipment prior to usage, and DO NOT apply this product through equipment that uses cluster spray nozzles (due to variability in application use rates and spray patterns).

Sod Production

Do NOT apply this product until sod is well established. It is recommended that sod be established for at least six(6) months before a DIMENSION herbicide application is made.

Do NOT apply this product within three (3) months of harvest.

Other Use Precautions

Early postemergence applications of this product will control crabgrass only if applied prior to the fifth leaf (first tiller) stage of growth of crabgrass.

For best results, cultural practices that disturb the soil, such as core-, spike-, or hydro-aerification, and verticutting, should be done before application of this product.

DO NOT apply this product until the grass has recovered from these cultural practices.

DO NOT use clippings from treated turf for mulching around vegetables or fruit trees.

APPLICATION DIRECTIONS

APPLICATION EQUIPMENT AND INSTRUCTIONS

Apply this product through conventional liquid application equipment in a sufficient volume of carrier solution to provide a uniform spray distribution. DO NOT apply this product through liquid application equipment that uses cluster spray nozzles or other boomless spray equipment due to variability in application use rates and spray patterns. Calibrate application

equipment prior to usage. Avoid streaking, skips, or excess overlaps during application. The use of marker dyes or foams aids in making more accurate applications.

DO NOT apply this product through any type of irrigation system.

Dimension Turf and Ornamental Herbicide contains a naphtha solvent. Under unusual circumstances, this solvent may weaken rubber or plastic components of mixing/spraying equipment (e.g., hoses). To reduce the potential for such damage (1) review and heed the equipment manufacturer's instructions for compatibility with naphtha solvents, (2) use typical dilutions (e.g., 1 gal of Dimension in at least 50 gal of total spray solution), and (3) store spray solution in equipment for no more than three days.

CONTROL OF CRABGRASS

PREEMERGENCE AND EARLY POSTEMERGENCE CONTROL.

This product provides "preemergence" control of crabgrass (including the large, smooth, and southern species) when applied prior to the emergence of crabgrass from the ground in established lawns and ornamental turfs.

It can also provide "early postemergence" control of crabgrass during the early stages of crabgrass growth after the crabgrass has emerged from the ground. However, it is often difficult to see the very small, early stages of crabgrass in well-established lawns and ornamental turfs. Early post-emergence crabgrass control will be obtained only when this product is applied prior to the tillering of crabgrass, which generally corresponds to the time when you can first easily see the crabgrass plants in the lawn or turf. So the practical benefit of this product's additional, early postemergence activity is that (compared to strictly preemergence crabgrass products) it can give the user a 2-8 week longer period of time (depending on climatic conditions and crabgrass growth rates) to make applications and still control crabgrass.

APPLICATION FREQUENCY AND TIMING.

This product may be applied as a single application, as a split application, or as a sequential application for crabgrass control in the spring, summer, or fall.

DO NOT apply more than 1.5 fl oz/1000 sq ft (2 qts/A) per application, and no more than 4.5 fl oz/1000 sq ft (6 qts/A) per year (2 qts/A in New York) if using split or sequential applications.

SPRING APPLICATIONS.

For applications made in the spring or early summer, this product should be applied at the appropriate rate corresponding to one of the three control programs listed in Table 1, depending on the user's location, the mowing height of the turfgrass, and whether the use is considered to be preemergence or early postemergence at the time of the application. The duration of residual weed control provided by this product is directly related to the total rate applied, but will vary somewhat depending on weather, weed pressure, turfgrass competitiveness, and the user's location within a region.

Use Program 1 for preemergence control at sites where turfgrass is cut relatively high (e.g., homeowner lawns). This program provides 3-5 months of preemergence crabgrass control. This program will also provide early postemergence control of crabgrass up to the 3-leaf stage at sites where turfgrass is cut relatively high (e.g., homeowner lawns).

Use Program 2 for preemergence control at sites where (a) turfgrass is cut relatively low (e.g., golf fairways), and (b) turfgrass maintenance or weed control has been conducted during the previous year. This program provides 4-6 months of preemergence crabgrass control. This program may also be used for early postemergence control up to crabgrass tillering at sites where turfgrass is cut relatively high (e.g., homeowner lawns).

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Use **Program 3** for preemergence control at sites where (a) turfgrass is cut relatively low (e.g., golf fairways) and (b) turf maintenance or weed control has not been conducted during the previous year. This program provides 4-6 months of preemergence crabgrass control. This program may also be used for early postemergence control up to crabgrass tillering at sites where turfgrass is cut relatively low (e.g., golf fairways).

Subsequent, sequential pre- and or postemergence applications should be made where longer periods of control are desired. Split applications may also be made, with the rates in Table 1 being split across two applications made 5-10 weeks apart. Such applications may provide improved weed control.

TABLE 1
RECOMMENDED USE RATES*
FLUID OUNCE/1000 SQ. FT
(QUARTS/ACRE)

REGION	PROGRAM 1	PROGRAM 2	PROGRAM 3
North	0.750 (1.0) (.25 lb. ai/acre)	1.125 (1.5) (.38 lb. ai/acre)	1.500 (2.0) (.5 lb ai/acre)
Transition	1.125 (1.5) (.38 lb. ai/acre)	1.500 (2.0) (.5 lb. ai/acre)	1.875** (2.5**) (.62 lb. ai/acre)
South	1.500 (2.0) (.5 lb. ai/acre)	0.9375 + 0.9375** (1.25 + 1.25) (.33 + .33 lb. ai/acre)	1.125 + 1.125** (1.5 + 1.5) (.38 + .38 lb. ai/acre)
Coastal South	0.9375 + 0.9375** (1.25 + 1.25) (.33 + .33 lb. ai/acre)	1.125 + 1.125** (1.5 + 1.5) (.38 + .38 lb. ai/acre)	1.3125 + 1.3125** (1.75 + 1.75) (.4375 + .4375 lb. ai/acre)
West	0.750 - 1.125 (1.0 - 1.5) (.25 - .38 lb. ai/acre)	1.125 - 1.500 (1.5 - 2.0) (.38 - .5 lb. ai/acre)	0.9375 + 0.9375** (1.25 + 1.25) (.33 - .33 lb. ai/acre)

*DO NOT apply more than 1.5 fl oz/1000 sq ft (2 qts/A) per application, and no more than 4.5 fl oz/1000 sq ft (6 qts/A) (2 qts/A in New York) per year. The addition of a nonionic surfactant at 0.5 percent by volume or 2 qts per 100 gals of spray solution may improve early postemergence control. Always read and follow the surfactant manufacturer's label recommendations. Regions include areas listed below.

TABLE 2 - AREAS WITHIN REGIONS

North:***	all other areas.
Transition:	DE, KS, KY, MD, MO, NJ, VA, southeastern PA, southern areas of IL, IN, OH, & coastal areas of CT, NY & RI.
South:	AL, AR, GA, LA, MS, NC, NM, OK, SC, TN, & TX.
Coastal South:	HI, FL, & southern coastal areas of AL, GA, LA, MS, NC, SC, & TX.
West:	AZ, CA, & NV. In this climatically diverse region, use the higher rates in local areas with longer crabgrass seasons.

**Preemergence applications must be applied as a split application when the rate is greater than 1.5 fl oz/1000 sq ft (2 qts/A). Early postemergence applications are limited to 1.5 fl oz/1000 sq ft (2 qts/A) per application.

***In New York State, this product may only be used by professional applicators at no more than two quarts per acre (.5 pounds active per acre) per year and is prohibited from use in Nassau and Suffolk Counties.

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FALL APPLICATIONS.

This product can also be applied in the late summer or early fall (late August through November) at the "Program 3" use rates listed in Table 1 to provide control of crabgrass through the early part of the next spring.

The Fall Application may be followed by an appropriate spring application to provide season-long control, provided not more than 1.5 fl. oz. /1000 sq. ft. (2 qts/A) per application and no more than 4.5 fl. oz./1000 sq. ft. (6 qts. A) (2 qts. a in New York) per year are made.

CONTROL OF OTHER GRASS AND BROADLEAF WEEDS

WEEDS CONTROLLED

Used as directed, Dimension Turf and Ornamental Herbicide will control or suppress the following annual grass and broadleaf weeds when applied prior to their emergence. This product will not control established grasses, except for crabgrass in early stages of development, and broadleaf weeds, therefore, the area to be treated should be free of weeds prior to application.

GRASSES

barley
Hordeum spp.
barnyardgrass
Echinochloa crus-galli
bluegrass, annual
Poa annua
brome
Bromus spp.
crabgrass, large
Digitaria sanguinalis
crabgrass, smooth
Digitaria ischaemum
crabgrass, Southern
Digitaria ciliaris
crowfootgrass
Dactyloctenium aegyptium
dallisgrass (seedling)
Paspalum dilatatum
goosegrass
Eleusine indica
foxtail, green
Setaria verdi
foxtail, yellow
Setaria faberi
kikuyugrass
Pennisetum clandestinum
oats, wild
Avena fatua
ryegrass (annual & perennial)
Lolium spp.
smutgrass
Sporobolus indicus

BROADLEAF WEEDS

bittercress
Cardamine spp.
carpetweed
Mollugo verticillata
chickweed
Stellaria spp.
geranium, Carolina
Geranium carolinianum
henbit
Lamium spp.
knotweed, prostrate
Polygonum aviculare
lespedeza, common
Lespedeza striata
marestail
Conyza canadensis
medic, black
Medicago lupulina
mustard
Brassica spp.
oxalis, buttercup
Oxalis pes-caprae
pineappleweed
Matricaria matricarioides
pigweed, redroot
Amaranthus retroflexus
parsley-piert
Alchemilla arvensis
purslane, common
Portulaca oleracea
rocket, London
Sisymbrium irio
shepherdspurse
Capsella bursa-pastoris
speedwell, corn
Veronica arvensis
spurge, garden
Euphorbia hirta
spurge, prostrate
Euphorbia humistrata
spurge, spotted
Euphorbia maculata
woodsorrel, creeping
Oxalis corniculata
woodsorrel, yellow
Oxalis stricta

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TANK MIXTURES

READ THE LABEL OF EACH TANK MIXTURE PRODUCT USED AND FOLLOW THE PRECAUTIONARY STATEMENTS, DIRECTIONS FOR USE, AND OTHER RESTRICTIONS. DO NOT TANK-MIX THIS PRODUCT WITH OTHER PRODUCTS (EXCEPT MARKER DYES AND FOAMS) FOR APPLICATION TO GOLF GREENS.

This product may be tank-mixed with fluid fertilizers and/or MSMA and Acclaim®. A compatibility test (see the "Compatibility Test" section below) is suggested before tank-mixing this product.

TANK MIXTURES FOR POSTEMERGENCE CONTROL OF CRABGRASS

Application of this product alone provides early postemergence control of crabgrass when treated prior to reaching the tillering stage of growth. For postemergence control of tillered crabgrass up to 3 tillers, this product should be applied in combination with either MSMA or Acclaim.

Use the lower rate if preemergence herbicides have been applied prior to the postemergence application otherwise use the high rate.

Observe all limitations, precautionary statements, and use restrictions on labels for MSMA or Acclaim when using these tank mixtures. Refer to specific turfgrass species for safety information for these products. The addition of a nonionic surfactant may improve control. Always read and follow the surfactant manufacturer's label recommendations.

PHYSICAL COMPATIBILITY TEST

Before mixing this product with fluid fertilizers and/or other pesticides, it is advisable to test compatibility by mixing all the components in a small jar in proportionate quantities.

COMPATIBILITY TEST MIXING INSTRUCTIONS

Pesticide Formulation	IF Rate per Acre	Amount of Pesticide added to Spray Carrier (assuming volume is 25 GPA) ADD:
		Level Teaspoons per Pint Jar of Carrier Solution
Dry	1 lb	1-1/2
Liquid	1 qt	1

This compatibility test is designed for 25 gallons of spray solution per acre. The table above gives general guidelines for use rate ratios of pesticides to be tank-mixed with this product. Determine the amount of pesticide to tank-mix by referring to the pesticide label(s). Then, calculate the amount of pesticide to add to jar based on use rate ratios in table. For a use rate of 1 pound per acre of dry pesticide add 1-1/2 teaspoons to the jar, and for a use rate of 1 quart per acre of liquid pesticide, add 1 teaspoon to the jar. This product should be added based on use rate ratios for liquid pesticides (for use rate of 1 quart per acre add 1 teaspoon to the jar). For changes in spray volume or herbicide rate, make appropriate changes in the ingredients for the test. Shake well after mixing.

If pesticide(s) does not form crystals, flakes, sludge, gels, oily films or layers, then the tested components are compatible. Incompatibility in any of the above described forms will usually occur within 5 minutes after mixing.

If components are incompatible, the use of a compatibility agent is recommended. Repeat the above compatibility test with a suitable compatibility agent (one-half teaspoon per pint jar is equivalent to 2 pints per 100 gallons of spray solution).

MIXING INSTRUCTIONS

Dimension Alone with Water as the Carrier:

Fill the previously cleaned spray tank to about three-fourths of the desired volume with water. Add the recommended amount

of this product to the tank. Complete the filling process while maintaining agitation. Remove the hose from the mixing tank immediately after filling to avoid siphoning back into the water source.

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Dimension Alone with Fluid Fertilizer as the Carrier:

First, determine the compatibility of this product with the desired fluid fertilizer by mixing small proportional quantities in advance. See the "Compatibility Test" section of this label. Then follow the mixing procedure listed below for tank mixtures.

TANK MIXTURES

First, determine the compatibility of this product and the desired tank mixture partner product(s) in the appropriate carrier (water or fluid fertilizer) by mixing small proportional quantities in advance. See the "Compatibility Test" section of this label. Then adhere to the following mixing procedure:

1. Place a 20 to 35 mesh screen or wetting basket over the filling port.
2. Fill the previously cleaned sprayer half full with the appropriate carrier. Start agitation and continue agitation through mixing and spraying operations.
3. Add a compatibility agent if needed. Read and follow all of the information found on the product label for the selected compatibility agent. Check for adequate agitation.
4. If a flowable pesticide formulation is used, premix with one part water, and add SLOWLY to tank.
5. If wettable powder or dry -flowable pesticide formulation is used, make a slurry with the water, and add it SLOWLY to the tank.
6. Add this product or emulsifiable concentrate pesticide formulations to the tank.
7. Add water soluble liquid pesticide formulations followed by surfactants, marker dyes or foams, or drift control additives while continuing the filling process.
8. Remove the hose from the mixing tank immediately after filling to avoid siphoning back into the carrier source.
9. Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, agitate thoroughly to re-suspend the mixture before resuming spraying.

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USE DIRECTIONS FOR ORNAMENTAL PLANTINGS AND CONTAINERS

DIMENSION Turf and Ornamental Herbicide provides preemergence control of listed annual grasses and broadleaf weeds in areas planted with tolerant ornamental plants listed on this label.

It is intended for use on plants being grown for aesthetic purposes in landscaped areas.

When applied as directed, the ornamental plants listed on this label have shown tolerance to post-directed applications of DIMENSION Turf and Ornamental herbicide.

It is impossible, however, to evaluate tolerance to this product on all ornamental plant species or varieties or under all possible growing conditions.

Under your growing conditions, a limited area involving only a few plants should be treated for tolerance evaluation prior to large-scale applications.

NOTE: This product is not recommended for use as an over-the-top broadcast spray of ornamentals. Foliage that receive direct or indirect(drift) spray contact may be injured. The injury is typically cosmetic and the plants normally outgrow this condition rapidly and develop normally.

USE RATES:

Apply DIMENSION Turf and Ornamental Herbicide with a calibrated sprayer which will assure accurate, even, spray distribution. In general, Dimension herbicide should be thoroughly mixed with clean water at 1.0 to 1.5 fluid ounces of product per 1000 square feet per application and applied at 20 to 40 psi in a minimum of one gallon of water per 1000 square feet.

This product may be applied as a single application or as a split application prior to weed seed germination.

Refer to the following table for product recommendations when treating a small area.

DO NOT apply more than 1.5 fl. oz. of product/1000 sq. ft.(2 qts./A) per application every 3 to 4 months and no more than 4.5 fl. oz. of product/1000 sq. ft(6 qts./A) (2 qts /A in New York) per year if using split or sequential applications..

This product may be applied as a split application or as a sequential application for weed control in the spring, summer or fall.

Quarts Product/Acre	Fluid Ounces DIMENSION/1000 Sq. Ft.	Fluid Ounces DIMENSION /100 Sq. Ft.	Milliliters Product/100 Sq. Ft.
2	1.5	0.15	4.4

APPLICATION TIMING AND RECOMMENDATIONS

Apply Dimension Turf and Ornamental Herbicide as a post-directed spray around established ornamentals. Direct sprays to the soil at the base of the ornamentals avoiding contact or drift to foliage.

Dimension is a preemergence herbicide that will control germinating weeds. It will not control weeds that are established. Make applications prior to weed seed germination or to bare ground. The best weed control is obtained when applications are made to soil that is free of clods, weeds and debris such as leaves. Prior to making an application, control existing vegetation by hand weeding, by cultivation or with a postemergence herbicide. Once an application of this product has been made, do not disturb the soil surface as the herbicide barrier will be broken. Care must be taken that soil or planting mixes have settled firmly following transplanting and that there are no cracks that would allow direct contact of this product and plant roots.

PRECAUTIONS FOR ORNAMENTAL PLANTINGS AND CONTAINERS

- Only apply this product to established ornamentals.
- Do not apply this product to bare roots of ornamental plants as injury may result.
- Do not incorporate this product into soil. Dilution of active ingredient and possible injury to plant roots may occur.
- Do not apply around ornamental plants that have been weakened or are under stress (due to drought, flooding, excessive fertilizer or soil salts, wind injury, hail, frost damage, winter injury, injury from previously applied pesticides or injury due to insects, nematodes or diseases).
- Do not make applications when weather conditions favor drift to non-target areas. This product may injure foliage of non-target plants.
- Do not apply this product on grasses grown for seed.
- Do not graze livestock or feed forage cut from areas treated with this product.
- Do not apply this product in enclosed structures and greenhouses.
- Do not apply another herbicide within 4 weeks of application of this product.

TOLERANT ORNAMENTALS

When applied as directed under the conditions described on this label, ornamentals listed below have shown tolerance in field trials. However, this product has not been tested on all cultivars of each species or under all possible growing conditions. Under your growing conditions, a limited number of plants should be treated for tolerance evaluations, prior to initiating large-scale applications. Follow directions given above to determine plant tolerance under your growing conditions prior to large scale use

COMMON NAME	BOTANICAL NAME	TOLERANT CULTIVARS
Abelia, Dwarf	<i>Abelia X grandiflora</i>	Nana
Ajuga	<i>Ajuga reptans</i> <i>Ajuga genevensis</i>	Bronze Bronze Beauty
Almond, Flowering	<i>Prunus gladulosa</i>	
Apple*	<i>Malus pumila</i>	
Arborvitae	<i>Thuja occidentalis</i>	Nigra Pyramidalis Smaragh Techny Woodwardii
Arborvitae, Golden	<i>Thuja orientalis</i>	
Aster, Chinese	<i>Callistephus chinensis</i>	Dwarf Queen
Ash, Green	<i>Fraxinus pennsylvanica</i>	
Ash, Mountain	<i>Sorbus aucuparia</i>	
Ash, Purple	<i>Fraxinus americana</i>	
Azalea	<i>Rhododendron spp.</i>	Brilliant Buccaneer Carror Chimes (Belgian) Elsie Lee Exbury Fashion Hardijzer Beauty Hershey Red Higasa Hinocrimson Holland (Hybrid) Marion Lee Northern Lights Orange Cup Orchid Lights Snow Southern Charm
Azalea, Flame	<i>Rhododendron calendulaceum</i>	
Azalea, Kirishima		
Bamboo, Heavenly		
Barberry	<i>Berberis thunbergii</i>	Aurea Dwarf Pigmy Green Kobold Pygmy Red Rose Glow
Barberry, Purple		Atropurpurea
Basket flower	<i>Gaillardia grandaflora</i>	
Beach grass	<i>Ammophila breviligulata</i>	
Bearberry (common)	<i>Arctostaphylos uva-ursi</i>	Massachusetts
Bee Balm	<i>Monarda didyma</i>	
Begonia	<i>Begonia spp.</i>	
Birch, River	<i>Betula nigra</i>	
Blackeyed Susan	<i>Rudbeckia hirta</i>	Goldstrum

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Blanket Flower	<i>Gaillardia spp.</i>	
Blue Fescue	<i>Festuca ovina</i>	
Blueberry*	<i>Vaccinium spp.</i>	Bluecrop Blue Jay Jersey North Blue Northland
Bottlebrush	<i>Callistemon citrinus</i>	
Boxwood, Japanese		Japonica
Boxwood, Weller	<i>Buxus sempervirens</i>	
Broom	<i>Cytisus spp.</i> <i>Genista pilosa</i>	Moonlight Vancouver Gold
Bugle Carpet		
Camellia	<i>Camellia japonica</i> <i>Camellia sasangua</i>	Debutante Mathotiana Supreme Chansonette
Candy Tuft	<i>Iberis spp.</i>	Snow White
Carex, Variegated	<i>Carex</i>	
Cedar, Red	<i>Juniperus virginiana</i>	
Celosia	<i>Celosia spp.</i>	
Centaurea	<i>Centaurea montana</i>	Scarlet Plumosa
Cockscomb, Plumosa	<i>Celosia cristata</i>	Red Kewpie
Coleus	<i>Coleus blumei</i>	
Columbine	<i>Aquilegia spp.</i>	
Copper leaf	<i>Acalypha wilkensiana</i>	
Coreopsis	<i>Ceropsis spp.</i>	Moonbeam
Corn Flower	<i>Centaurea spp.</i>	
Cotoneaster	<i>Cotoneaster apiculatus</i>	
Coyotebrush	<i>Baccharis pelularis</i>	
Cycads	<i>Cycads revoluta</i>	
Cypress, Bald	<i>Taxodium distichum</i>	
Cypress, Italian	<i>Cupressus sempervirens</i>	Glaucia
Cypress, Japanese False	<i>Chamaecyparis obtusa</i>	Gracilis
Cypress, Leyland	<i>Cupressocyparis leylandii</i>	
Daffodil	<i>Narcissus spp.</i>	King Alfred
Daylily	<i>Hemerocallis spp.</i>	Aztec Gold Bright Yellow (Hybrid) Single Gold (Evergreen) Wilson's Yellow
Dianthis (Sweet William)	<i>Diathanthus spp.</i>	
Delphinium	<i>Delphinium spp.</i>	Magic fountain
Dogwood	<i>Cornus florida</i>	
Dogwood, American	<i>Cornus sericea</i>	Flavimarina
Douglas Fir	<i>Pseudotsuga menziesii</i>	
Dusty Miller	<i>Senecio cineraria</i>	
Elm, Drake	<i>Ulmus parvifolia</i>	
Euonymus	<i>Euonymus fortunei</i>	Argenteo-variegata Aureo-marginata Colorata Emerald Gaiety Emerald EN Gold Gold Edge Gold Princess Silver King Tricolor Vegetus

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Fan Palm, European	<i>Chamaerops humilis</i>	
Fan Palm, Mexican	<i>Washingtonia robusta</i>	
Fern (various)	<i>Asparagus spp.</i>	
Fescue	<i>Festuca glauca</i>	
Fetterbush	<i>Leucothoe fontana</i>	Rainbow
Ficus	<i>Ficus retusa</i>	Nitidia
Fir Fraser	<i>Abies fraseri</i>	
Forsythia	<i>Forsythia X intermedia</i> <i>Spring Glory</i>	Arnold Dwarf Bronxensis Dwarf Lynwood Gold Meadowlark Weeping
Fountain grass	<i>Pennisetum setaleum</i>	
Fuchsia	<i>Fuchsia spp.</i>	
Galium	<i>Galium odoratum</i>	
Gardenia	<i>Gardenia jasminoides</i>	Mystery Radicans
Geranium	<i>Pelargonium X hortorum</i>	
Gum	<i>Eucalyptus citriodora</i>	
Hawthorn	<i>Crataegus spp.</i>	Cockspur White Crimson Cloud Enchantress Jack Evans Washington White
Heather, Twisted	<i>Erica cinerea</i>	Mediterranean Pink
Hemlock, Canada	<i>Tsuga canadensis</i>	
Hibiscus	<i>Hibiscus spp.</i>	Blue Bird Brilliant Hula Girl
Holly	<i>Ilex spp.</i> <i>Ilex X meserveae</i> <i>Ilex X attenuata</i>	Blue Boy Blue Girl Burfordii China Girl Compacta Forsteri Hellerie Japanese Northern Beauty Needlepoint Nellie R. Stevens Savannah
Holly, Chinese	<i>Ilex cornuta</i>	
Holly, Japanese	<i>Ilex crenata</i>	
Holly, Yaupon	<i>Ilex vomitoria</i>	
Honeysuckle	<i>Lonicera japonica</i>	Claveyis Dwarf Halliana Tatarian Canadian White Zebelli Red Hosta
Hosta	<i>Hosta spp.</i> <i>Hosta lancifolia</i>	Albo Marginata
Ice Plant	<i>Carpobrotus edulis</i>	
Impatiens	<i>Impatiens spp.</i>	
Iris	<i>Iris sp.p</i>	Dwarf Blue Wedgewood
Ivy, English	<i>Hedera helix</i>	Bulgaria Thorndale
Jasmine, Asian	<i>Trachelopermum asiaticum</i>	

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Juniper	<i>Juniperus spp.</i>	Arcadia Armstrong Bar Harbor
	<i>Juniperus horizontalis</i>	Blue Chip Blue Pacific Blue Rug
	<i>Juniperus horizontalis</i>	Blue Star Broadmoor Buffalo Calgary Carpet Emerald Sea Emerald Spreader Endora Compacta Fruitlandi Green Gold Tip Hetzi Hughes Manhattan Blue Parsoni Pfitzeriana Plumosa Prince of Wales Procumbens Dwarf San Jose Sargent Blue Sargent Green Scandia Scopulorum Moonglow Scopulorum Skyrocket Spartan
	<i>Juniperus chinensis</i>	Tamariscifolia
	<i>Juniperus sabina</i>	Weberi Youngstown Yukon Belle
King Palm	<i>Archontophoenix cunninghamiana</i>	
Laurel, Australian	<i>Pittosporum tobira</i>	
Laurel, Mountain	<i>Kalmia latifolia</i>	
Leucothoe	<i>Leucothoe fontanesiana</i>	
Ligustrum, Japanese	<i>Ligustrum japonicum</i>	
Lily, African	<i>Agapanthus africanus</i>	Albus Peter Pan
Lily, African Blue		
Lily of the Valley	<i>Pieris japonica</i>	Mt. Fire
Lilyturf	<i>Liriope muscari</i>	Evergreen Giant Lilac Beauty Majestic Monroe White Variegata
Liriope, Green	<i>Liriope spicata</i>	
Maple, Japanese	<i>Acer japonicum</i>	
Maple, Norway	<i>Acer platanoides</i>	
Maple, Red	<i>Acer rubrum</i>	
Maple, Silver	<i>Acer saccharinum</i>	
Maple Sugar	<i>Acer saccharum</i>	
Marigold	<i>Tagetes patula</i>	Honeycomb Variegata Wheeleris Dwarf

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Mock Orange*	<i>Philadelphus spp</i>	Golden Snowflake Double White
Mopdo Grass	<i>Ophiopogon japonicus</i>	
Moss Rose	<i>Portulaca grandiflora</i>	Sunnyside
Myrtle, Crape	<i>Lagerstoemia indica</i>	Faurei Langer Muskogee Standard Pink
Myrtle, Wax	<i>Myrica cerifer</i>	
Nadina	<i>Nadina domestica</i>	Compacta Nana
Narcissus	<i>Narcissus Spp.</i>	
Oak, Laurel	<i>Quercus laurifolia</i>	
Oak, Pin	<i>Quercus palustris</i>	
Oak, Red	<i>Quercus rubra</i>	
Oak, Southern L	<i>Quercus virginiana</i>	
Oak, Willow	<i>Quercus phellos</i>	
Oleander	<i>Nerium oleander</i>	Hardy Red Petite Pink Sister Agnes
Oteospermum	<i>Osteospermum fruticosum</i>	Wirligig
Pachysandra	<i>Pachysandra terminalis</i>	
Palm, Bangalow		
Pampas Grass	<i>Cortadaria selloana</i>	
Pansy	<i>Viola x wittrockiana</i>	
Paper Flower	<i>Bougainvillea glabra</i>	Barbara Karst
Peach*	<i>Prunus persica</i>	
Periwinkle, Dwarf	<i>Vinca minor</i>	
Petunia	<i>Petunia X hybrida</i>	Picotti
Photinia, Red Tip	<i>Photinia X fraseri</i>	
Pieris	<i>Pieris japonica</i>	
Pine, Australian	<i>Pinus nigra</i> <i>Pieris Taiwanensis</i>	
Pine, Japanese Black	<i>Pinus thumbergiana</i>	
Pine, Loblolly	<i>Pinus teada</i>	
Pine, Longleaf	<i>Pinus palustris</i>	
Pine, Mugho	<i>Pinus mugho</i>	
Pine, Scotch	<i>Pinus sylvestris</i>	
Pine, Slash	<i>Pinus elliotii</i>	
Pine, Swiss Mt.	<i>Pinus mugo</i>	
Pine, Virginia	<i>Pinus virginiana</i>	
Pine, White	<i>Pinus strobus</i>	
Pineapple, Guava	<i>Feijoa fellowaiana</i>	
Pittosporum, Japan		
Potentilla	<i>Potentilla nepalensis</i> <i>Potentilla fruticosa</i>	Abbotswood
Privet	<i>Ligustrum japonicum</i>	Golden Vicary Regal Texanum Wax Yellow Tipped
Privet, Glossy	<i>Ligustrum lucidum</i>	
Pyracantha	<i>Pyracantha koidzumii</i>	Gnome Lalandei Victory
Queen Palm	<i>Arecastrum rammannzoffianum</i>	

Quince, Japanese*		
Rhododendron	<i>Rhododendron spp</i>	Album Cunningham White Fashion Hardy PJM Purple Gem Silvery Pink
Rhododendron, Carolina	<i>Rhododendron carolinianum</i>	
Rhododendron, Catawba	<i>Rhododendron catawbiense</i>	
Ribbon grass	<i>Phalaris arundinacea</i>	
Rockcress	<i>Arabis spp.</i>	Snowcap
Rodie Max (Rosebay)	<i>Rhododendron maximum</i>	
Rose	<i>Rosa banksiaae</i>	Luta
Rosemary*	<i>Rosmarinus officinalis</i>	
Rosemary, Bog	<i>Andromeda polifolia</i>	Nana
Salvia	<i>Salvia farinacea</i>	Rhea
Sedum	<i>Sedum spurium</i>	Dragon Blood Red Red Carpet Yellow
Snapdragon	<i>Antirrhinum spp.</i>	
Sourwood	<i>Oxydendrum arboreum</i>	
Spiraea	<i>Astilbe X arendsii</i>	Fanall
Spiraea	<i>Spiraea spp.</i>	Anthony Waterer Red Dolchica Froebeli Pink Goldenflame Red Snowmound White Van Houtte White
Spiraea, Garland	<i>Spiraea spp.</i>	
Spruce, Black Hills	<i>Picea glauca</i>	
Spruce, Colorado Blue	<i>Picea pungens</i>	
Spruce, Norway	<i>Picea abies</i>	
Spruce, White	<i>Picea glauca</i>	Conica
Sweetflag, Grassyy-Le		
Sweetgum	<i>Liquidambar styraciflua</i>	
Sycamore	<i>Platanus occidentalis</i>	
Tree Fern (Tiki Fern)	<i>Asparagus virgatus</i>	
Trumpet Flower, Evening	<i>Gelsemium sempervirens</i>	
Tulip	<i>Tulip. spp</i>	Apeldoorn
Tufted hairgrass	<i>Deschampsia caespitosa</i>	
Verbena, Shrub	<i>Lantana sellowiana</i>	
Vervain	<i>Verbena spp.</i>	St. Paul
Viburnum	<i>Viburnum spp.</i>	American Cranberry Bush Arrowood Common Snowball European Cranberry Bush Linden Mohican Wright
Vinca (Periwinkle)	<i>Vinca minor</i>	

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Windmill Palm	<i>Trachycarpus fortunei</i>	
Xylosma	<i>Xylosma congestum</i>	
Yarrow	<i>Achillea spp.</i>	
Yaupon	<i>Ilex vomitoria</i>	Dwarf
Yew	<i>Taxus cuspidata</i> <i>Taxus X media</i>	Denisiiformis

*Ornamental species only. DO NOT USE ON FOOD-PRODUCING TREES AND PLANTS.

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14970-M5
9/22/00