

10 AUG 1992

**Mr. Richard A. Perotti
Grace-Sierra Crop Protection Co.
1001 Yosemite Dr.
Milpitas, CA 95035**

Dear Mr. Perotti:

**Subject: Rout Ornamental Herbicide
EPA Registration No. 58185-27
Re: Label Amendment
Your Letter Dated July 8, 1992**

The labeling referred to above submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide act, as amended is acceptable. Please submit five (5) copies of your final printed labels incorporating this amendment. A stamped copy of labeling is enclosed for your records.

Sincerely

**Joanne I. Miller
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H7505C)**

For Sale To, Use And Storage By Commercial Nursery, Cut Flower, Foliage And Landscape Personnel Only.

For preemergence control of weeds in container, field grown and landscape ornamentals, cut flowers and foliage crops.

CAUTION: Keep out of reach of children. See back panel for additional caution statements.

Successful use of this product requires:

- o Even distribution of particles at the proper application rate.
- o Application to dry foliage only. o Application timing when plants are not breaking dormancy or making a flush of growth.
- o Application at least two (2) weeks prior to enclosure in greenhouse/shadehouse type structures and two (2) weeks prior to shipping.

ACTIVE INGREDIENTS:

Oxfluorfen: 2-chloro-1-(3-ethoxy-4-nitrophenoxy)-4(trifluoromethyl)benzene.....	2.00%
Oryzalin: 3,5-dinitro-N,N'-dipropylsulfanilamide.....	1.00%
INERT INGREDIENTS:.....	97.00%
Total	100.00%

STORAGE AND DISPOSAL:

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

Storage: Store in a dry place. Protect from water and extreme heat.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Damaged container and/or spilled pesticide should be disposed of according to instructions.

EPA REG. NO. 58185-27

EPA EST. NO. 279-CA-1

PRODUCT OF U.S.A.

Net Weight 50 lbs. (22.6 Kg)

CROP PROTECTION COMPANY
1001. ~~Sebenite~~ Drive
Milpitas, CA. 95035
Telephone 408/263-8080

ACCEPTED
 10 AUG 1992
Under the Federal Insecticide, Fungicide, and Herbicide Act, as amended, for the pesticide registered under EPA Reg. No. 58185-27

BEST AVAILABLE COPY

NOF(R) For preemergence control of weeds in container, field grown and landscape ornamentals, cut flower and foliage crops.

The species listed below have been tested under actual growing conditions and found tolerant at the recommended application rate.

Abelia

x grandiflora (Glossy Abelia)

Alyogyne

huegelii (Blue Hibiscus)

Andromeda

polifolia (Bog Rosemary)

Anthurium andraeanum 'Ozaki Red' (Ozaki Red Anthurium)

Arctostaphylos

uva-ursi (Bearberry/Kinnikinnick)

Banksia menziesii 'Raspberry Frost' (Raspberry Frost Banksia)

Berberis

thunbergii 'Crimson Pygmy'

(Crimson Pygmy Barberry)

Bougainvillea sp.

'Barbara Karst' (Barbara Karst Bougainvillea)

Buxus

microphylla japonica (Japanese Boxwood)

sempervirens 'Welleri' (English Boxwood)

Carissa

grandiflora 'Fancy' (Natal Plum)

Chamaecyparis

obtusa 'Letinea Aurea' (Gold Hinoki False Cypress)

pisifera "Filifera Aurea Nana"

(Dwarf Golden Thread-Branch Cypress)

Cercis

canadensis (Redbud)

Codiaeum

norma 'Low Life' (Low Life Croton)

Cornus

baileyi (Baileyi Dogwood)

florida (Flowering Dogwood)

Cotoneaster

dammeri 'Coral Beauty'

(Coral Beauty Cotoneaster)

salicifolius 'Repens' (Willowleaf Cotoneaster)

Cupressus

sempervirens 'Glauca' (Italian Cypress)

Diosma

ericoides (Breath of Heaven)

Dracaena massangeana (Cornplant)

Dracaena deremensis 'Warneckii' (Striped Dracaena)

Elaeagnus

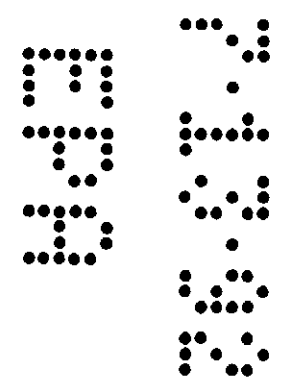
pungens 'Fruitlandii' (Fruitland Silverberry)

Eriobotrya

japonica (Loquat)

Escallonia

x exoniensis 'Fradesii' (Frades Escallonia)



Euonymus

- alata 'Compacta' (Dwarf Burning Bush)
- fortunei 'Emerald 'n Gold' (Emerald Gold E.)
- fortunei 'Gold Edge' (Gold Edge E.)
- fortunei 'Vegeta' (Euonymus Vegetus)
- Klatschovica 'Manhattan' (Manhattan E.)

Euphorbia

- milli (Crown of Thorns)

Ficus

- benjamina 'Lady Diane' (Weeping Fig)
- lyrata (Fiddleleaf Fig)
- microcarpa nitida (Little Leaf Ficus)

Forsythia

- x intermedia 'Lynwood' (Lynwood Gold F.)

Gardenia

- jasminoides 'August Beauty' (August Beauty Gardenia)

Gelsemium

- sempervirens (Carolina Jessamine)

Gypsophila sp. (Baby's Breath)

Hibiscus

- rosa-sinensis 'Brilliant' (Brilliant Hibiscus)
- rosa-sinensis 'Crown of Bohemia' (Crown of Bohemia H.)

Hypericum sp. (St. Johnswort)

Iberis

- sempervirens (Evergreen Candy Tuft)

Ilex

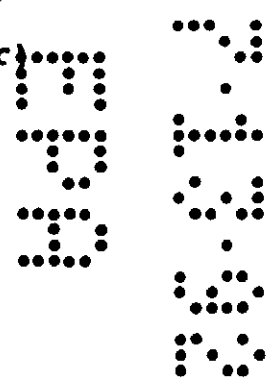
- aquipernyi 'San Jose' (San Jose Holly)
- cornuta 'Burfordii' (Burford Holly)
- cornuta 'Burfordii Nana' (Dwarf Burford Holly)
- cornuta 'Needlepoint' (Needle Point Holly)
- cornuta 'Rotunda' (Dwarf Chinese Holly)
- crenata 'Convexa' (Convex Japanese Holly)
- crenata 'Hetzii' (Japanese Holly)
- vomitaria 'Schillings' (Schillings Holly)

Jasminum

- nitidum (Angelwing Jasmine)
- sp. (Confederate Jasmine)

Juniperus

- chinensis 'Gold Coast' (Gold Coast Juniper)
- chinensis 'Mint Julip' (Mint Julip Juniper)
- chinensis 'Pfitzerana Glauca' (Blue Pfitzer Juniper)
- chinensis 'Pfitzerana Old Gold' (Old Gold Juniper)
- chinensis 'Sargentii Viridis' (Green Sargent Juniper)
- chinensis 'Sea Green' (Sea Green Juniper)
- conferta 'Blue Pacific' (Blue Pacific Juniper)
- conferta (Shore Juniper)
- horizontalis 'Bar Harbor' (Bar Harbor Juniper)
- horizontalis 'Douglasii' (Waukegan Juniper)
- horizontalis 'Plumosa' (Andorra Juniper)
- sabina 'Broadmoor' (Broadmoor Juniper)
- sabina 'Tamariscifolia' (Tam Juniper)
- squamata 'Blue Star' (Blue Star Juniper)



Lantana

- montevidensis (Weeping Lantana)
- montevidensis 'Radiation' (Radiation Lantana)

Leucadendron hybrid

'Safari Sunset' (South African Rose)

Leucospermum cordifolium

(Pincushion Protea)

Ligustrum

~~japonicum~~ 'Texanum' (Waxleaf Privet, Texas Privet)

lucidum (Glossy Privet)

sinense 'Variegata' (Dwarf Variegated Chinese Privet)

sp. 'Jack Frost' (Jack Frost Ligustrum)

x 'Vicaryi' (Vicary Golden Privet)

Lonicera

x xylosteoides 'Clavey's Dwarf' (Clavey's Dwarf Honeysuckle)

Mahonia

aquifolium (Oregon Grape Holly)

Microbiota

decussata (Russian Cypress)

Nandina domestica 'Nana' (Dwarf Nandina)

Nerium

oleander (Oleander)

Osmanthus

fragrans (Sweet Osmanthus)

heterophyllus 'Variegatus' (Variegated Osmanthus)

Photinia

x fraseri (Fraser Photinia, Red Tip)

Picea

abies 'Ohlendorffii' (Norway Spruce)

glauca 'Conica' (Dwarf Alberta Spruce)

pungens 'Glauca' (Colorado Blue Spruce)

Pieris

japonica 'Mountain Fire' (Mountain Fire Andromeda)

Pinus

elliottii (Slash Pine)

mugo mugo (Mugho Pine)

radiata (Monterey Pine)

strobus (Eastern White Pine)

sylvestris (Scotch Pine)

thunbergiana (Japanese black Pine)

Pittosporum

crassifolium (Evergreen pittosporum)

tenuifolium (Kohuhu Pittosporum)

tobira (Green Pittosporum)

tobira 'Wheeler's Dwarf'

Podocarpus

gracilior (Weeping Podocarpus)

Potentilla

fruticosa 'Gold Drop' (Gold Drop Potentilla)

Protea neriifolia 'Pink Mink' (Pink Mink Protea)

Prunus

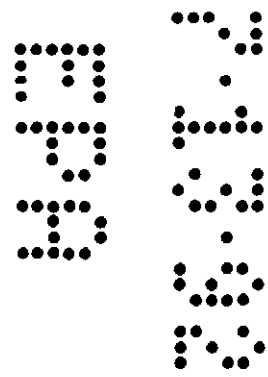
x cistena (Red-Leaf Plum)

Pyracantha

fortuneana 'Graberi' (Grabber Pyracantha)

'Mohave' (Mohave Pyracantha)

'Navajo' (Navajo Pyracantha)



Raphiolepis

- indica 'Ballerina' (India Hawthorn)
- indica 'Pinkie' (India Hawthorn)
- indica 'Pink Cloud' (Pink Cloud Raphiolepis)

Rhododendron

- sp. 'Dora Amateis' (Dora Amateis R.)
- sp. 'Coral Bell' (Azalea)
- sp. 'Copperman' (Azalea)
- sp. x exbury (Azalea)
- sp. 'Pink Ruffles' (Azalea)
- sp. 'Snow' (Azalea)

Salvia

- farinacea (Dwarf Blue Salvia)

Schefflera

- arboricola (Dwarf Schefflera)

Spiraea

- x bumalda 'Anthony Waterer' (Anthony Waterer S.)

Taxus

- media 'Hicksii'

Taxus x media 'Runyoni'

Ternstroemia

- gymnanthera

Thuja

- occidentalis 'Nigra' (Dark Green Arborvitae)
- occidentalis 'Ellwangeriana Aurea' (Golden Arborvitae)
- occidentalis 'Hetz's Midget' (Hetz Midget Arborvitae)
- occidentalis 'Pyramidalis' (Pyramidal Arborvitae)
- occidentalis 'Smaragd' (Emerald Arborvitae)
- orientalis 'Aurea Nana' (Dwarf Golden Arborvitae)
- orientalis 'Blue Cone' (Blue Cone Arborvitae)

Trachelospermum

- asiaticum 'Solo' (Asiatic Jasmine)
- asiaticum 'White Mist' (Variegated Asiatic Jasmine)
- jasminoides (Confederate or Star Jasmine)

Vaccinium

- ashei 'Homebell' (Homebell Blueberry)

Verbena

- peruviana (Sand Verbena)

Viburnum

- carlesii (Korean Spice Viburnum)
- dauidii (David Viburnum)
- macrocephalum (Chinese Snowball)
- plicatum 'Tomentosum' (Double-file Viburnum)

Vitis

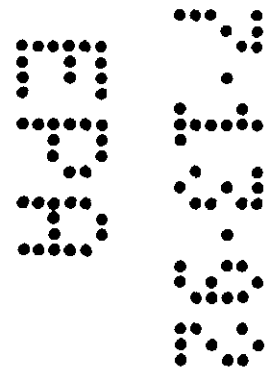
- x SV5279 'Auroa' (White Wine Grapes)

Weigela

- florida 'Java Red' (Java Red Weigela)
- sp. 'Boskoop Glory' (Boskoop Glory W.)

Xylosma

- congestum



ROUT(R) WEEDS

The Species Listed Below Have Been Tested and Results Do Not Warrant Use At This Time.

- Euonymus
- japonica 'Silver King' (Silver King Euonymus)
- Rafanopsis
- pectinatus (Greyleaf Daisy)
- Ficus
- pumila (Creeping Fig)
- Hydrangea
- paniculata 'Grandiflora' (Peegee Hydrangea)
- Ilex
- crenata 'Helleri' (Helleri Japanese Holly)
- Trachelospermum
- asiaticum 'Oblanceolatum' (Hardy Star Jasmine)

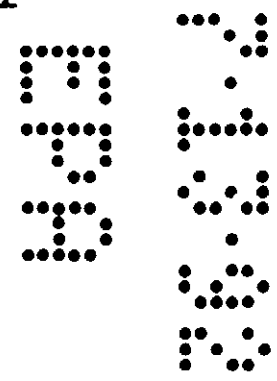
ROUT(R) has been found to give preemergent control of the following weeds:

GRASSY WEEDS

- | | |
|------------------|------------------------------------|
| Annual Bluegrass | (<u>Poa annua</u>) |
| Barnyardgrass | (<u>Echinochloa crusgalii</u>) |
| Crabgrass | (<u>Digitaria sanguinalis</u>) |
| Fall Panicum | (<u>Panicum dichotomiflorum</u>) |
| Foxtail, Green | (<u>Setaria viridis</u>) |
| Foxtail, Yellow | (<u>Setaria lutescens</u>) |
| Goosegrass | (<u>Eleusine indica</u>) |
| Kikuyu Grass | (<u>Pennisetum clandestinum</u>) |

BROADLEAF WEEDS

- | | |
|---------------------------|-------------------------------------|
| Ageratum | (<u>Ageratum conyzoides</u>) |
| Artillery Weed | (<u>Pilea microphylla</u>) |
| Bittercress | (<u>Cardamine pensylvanica</u>) |
| Buttonweed | (<u>Borreria laevis</u>) |
| Castor bean | (<u>Ricinus communis</u>) |
| Chickweed, Common | (<u>Stellaria media</u>) |
| Clover, white | (<u>Trifolium repens</u>) |
| Dandelion | (<u>Taraxacum officinale</u>) |
| Fireweed | (<u>Epilobium angustifolium</u>) |
| | (<u>Erechtites hieraciifolia</u>) |
| Groundsel | (<u>Senecio vulgaris</u>) |
| Lambsquarter | (<u>Chenopodium album</u>) |
| Marestail | (<u>Conyza canadensis</u>) |
| Medic | (<u>Medicago trunculata</u>) |
| Moss | (<u>Isopterygium albesceus</u>) |
| Oxalis | (<u>Oxalis stricta</u>) |
| Pearlwort | (<u>Sagina procumbens</u>) |
| Pigweed | (<u>Amaranthus retroflexus</u>) |
| Primrose, Cutleaf evening | (<u>Oenothera laciniata</u>) |
| Purslane | (<u>Portulaca oleracea</u>) |
| Shepherdspurse | (<u>Capsella bursa-pastoris</u>) |



Sowthistle
Sowthistle, Common
Spurge, Garden
Spurge, Hairy
Spurge, Prostrate
Spurge, Spotted

(Sonchus arvensis)
(Sonchus oleraceus)
(Euphorbia hirta)
(Euphorbia vermiculata)
(Euphorbia supina)
(Euphorbia corollata)

PRECAUTIONARY STATEMENTS:

Hazards to Humans and Domestic Animals: CAUTION, causes eye injury. Do not get in eyes, on skin, or on clothing. This product may cause allergic skin reaction. In case of contact, immediately wash eyes or skin with plenty of water. Get medical attention if irritation persists. Harmful if swallowed. Avoid inhalation.

Environmental Hazards: Do not apply directly to water. This pesticide is toxic to wildlife and fish. Use with care when applying in areas adjacent to any body of water. Apply this product only as specified on the label. Do not contaminate water by cleaning of equipment or disposal of wastes.

DESCRIPTION:

ROUT is a preemergent herbicide and does not control established weeds. ROUT combines two selective herbicides on one clay granule giving the user a broader spectrum of weed control and ornamental plant tolerance. ROUT is not registered for use on vegetable or edible fruit bearing crops, turf, bedding plants or flowering crops except as described in the landscape ornamentals and cut flower and foliage crops sections.

DIRECTIONS FOR USE:

It is a violation of federal law to use this product in a manner inconsistent with its labeling. For use only on container, field grown, and landscape ornamentals. This herbicide product has been extensively researched; however, testing has not been conducted on all species or cultivars, or under all growing conditions. In some instances performance characteristics may vary.

APPLICATION RECOMMENDATIONS:

The user should exercise reasonable judgement and caution with this product. Until familiar with results under user growing conditions, untreated check blocks should be left in each variety for performance comparisons.

ROUT should be applied at the recommended rate with a properly calibrated spreader which will assure accurate, even particle distribution. Do not disturb the soil surface once the product has been applied as the herbicide barrier will be broken. Best results are obtained when the product is watered in with approximately 1/2 inch of water immediately following application. Adequate moisture is required to activate the herbicide and wash particles off the foliage.

Users can determine if proper rate and distribution is being achieved by using a Grace-Sierra Rate Calibrator which is available free from Grace-Sierra Crop Protection Company. This simple tool allows you to quickly calibrate your application method.

APPLICATION RATES

Amount of ROUT(R)	Sq. Foot	100 Sq. Feet	Acre	Sq. Meter	100 Sq. Meters
1 ounce=28 grams(g)	1g	100g	100 lbs	10.8g	1.1kg

A. CONTAINER GROWN ORNAMENTALS

Apply ROUT in the spring or fall prior to weed seed germination or following complete weed removal. Repeat applications are required at three (3) month intervals during the growing season. If weed seed germination is observed prior to three (3) month normal application, product can be reapplied as recommended, but not less than two (2) months after previous application. Fall applications should be made two (2) weeks prior to placing plants in enclosed greenhouse structures.

Do not wait longer than three (3) months to reapply. Three months is the maximum residual for ROUT under most conditions. During periods of extreme temperature/rainfall conditions, product applications may be required at two (2) month intervals.

Potted liners - Remove established weeds from liners prior to transplanting into containers. Following planting, and prior to chemical application, irrigate with approximately 1/2 inch water to firm potting media around root systems. Allow foliage to dry. Broadcast product evenly over the container growing area. Water in with approximately 1/2 inch of water immediately after application.

Bare-root liners - Remove established weeds before herbicide application. Broadcast product evenly over the container growing area three (3) weeks after potting. Irrigate with approximately 1/2 inch of water immediately after application.

In container production nurseries where runoff water is recycled, care must be taken to locate pump intake line opening(s) close to the collection pond surface to avoid disturbing and recirculating clay fractions/organic matter accumulation near the pond bottom. This debris/settlement may contain amounts of previously applied pesticides tied-up on these clay/organic matter fractions and may lead to plant injury.

B. FIELD GROWN ORNAMENTALS AND LABELED CHRISTMAS TREES

Apply immediately after planting or in the spring prior to weed seed germination or following complete weed removal.

Apply ROUT at 50 lb/acre rate (one bag/acre) for a maximum of two (2) applications per growing season, or at 100 lb/acre rate once a year. ROUT is not recommended for use on bare root stock if irrigation is not available.

ROUT(R) LABEL

Potted liners - Remove established weeds from liners prior to transplanting into field. Following planting and prior to chemical application irrigate with approximately 1/2 inch water to firm soil around root systems. Allow foliage to dry. Broadcast product evenly over the field growing area. Water in with approximately 1/2 inch of water immediately after application and leave the soil undisturbed.

Bare-Root liners - Irrigate with approximately 1/2 inch of water after planting to firm soil around root systems. Remove established weeds before herbicide application. Broadcast product evenly over the field growing areas one (1) week after planting. Irrigate with approximately 1/2 inch of water immediately after application and leave the soil undisturbed. Loosen the soil by light cultivation prior to reapplication of ROUT.

C. LANDSCAPE ORNAMENTALS

Application of ROUT should be directed only to those species listed on the ROUT label. ROUT is not registered for use on vegetables or edible fruit bearing crops, turf, bedding plants or flowering crops except Protea and Salvia species. Apply ROUT at 100 lb/acre rate.

Apply immediately after planting or in the spring prior to weed seed germination or following complete weed removal. Irrigate with approximately 1/2 inch of water immediately after application and leave the soil undisturbed. Do not apply more than two (2) applications per season.

D. CUT FLOWER AND FOLIAGE CROPS

Follow all use precautions listed on the label unless excluded under specific crops below. Apply prior to weed seed germination or following complete weed removal. Following planting, and prior to chemical application, irrigate (1/2 inch) to firm soil around roots. Always allow foliage to dry completely prior to ROUT application. Broadcast product evenly over the production area at the proper rate. Irrigate immediately after application to activate the herbicide. Wait three (3) weeks before applying to bare root plantings.

FIELD GROWN PROTEA

Apply ROUT at 100 lb/acre rate to field plantings of 1, 2 year^{...} Protea nursery stock. Reapplications can be made at three (3) month intervals throughout the production cycle. Apply ROUT at 50 lb/acre to soils with low organic matter levels (0.5-2%). Shallow feeder roots exposed by cultivation or erosion should be covered prior to ROUT application.

SARAN HOUSE GROWN ANTHURIUMS

Apply ROUT at 100 lb/acre rate at three (3) month intervals. Do not reapply at less than three (3) month intervals in volcanic cinder soils. Do not treat greater than 1/4 (25%) of any saran production unit in a given day. All plant tissue (leaves/stems) must be

completely dry prior to ROUT application. Avoid contact with leaf petiole attachments and flowering parts. Application should be made with granular spreaders which allow for directed placement of ROUT to the base of plants. Consideration should be given to providing optimum ventilation to areas treated with ROUT to avoid injury due to vapors.

DRACAENA FIELD STOCK

Apply ROUT at 100 lb/acre rate at three (3) month intervals. Applications must be made with a granular spreader which allows for directed placement of ROUT to the base of plants. When establishing new field stock plantings, bind foliage of unrooted cuttings with rubber bands or string to prevent lodging of granules in leaf whorls (see PRECAUTIONS) and to allow for placement of product to base of plants. ROUT may be reapplied after cuttings have been taken from field stock. Before application the remaining side shoots (with expanded leaves) should be removed to prevent lodging of product granules in the leaf whorls.

PRECAUTIONS

Do not apply product directly to bare roots of woody ornamentals as injury may result.

Do not apply product to wet or dew covered foliage. However, should this happen, irrigate immediately to completely remove herbicide particles from leaf surfaces.

Do not apply to whorl-leaved plants, such as Dracaena sp., as their leaves channel the herbicide granules to the leaf base. This makes removal of product granules difficult and may result in foliage injury.

Do not apply product in enclosed greenhouse or enclosed shadehouse type structures.

Product should not be applied two (2) weeks prior to or two (2) weeks following leaf bud break, or during periods of flush growth. Newly forming leaves are particularly sensitive to this product. Spotting or leaf drop may result from such applications.

Do not apply within two (2) weeks prior to enclosure in greenhouse-type structures or within two (2) weeks prior to shipping.

Do not apply other labeled herbicides to areas treated with ROUT within two (2) months following treatment. Compatibility of ROUT with other ornamental herbicides has not been verified.

Do not disturb the soil surface following application as the herbicide barrier will be broken, resulting in less than optimum weed control.

Do not incorporate product into potting media or soil. Dilution of the active ingredient and possible injury to plant roots may result.

Do not apply in wind conditions which might affect product distribution. Wind may affect product distribution and move the product onto sensitive species. Uneven product distribution will result in minimal weed control.

Whenever applying this product safety goggles and rubber gloves should be worn. Under prolonged use a dust filter and disposable protective garment are additionally recommended.

ROUT is not recommended for use in greenhouse liner production beds; apply only to container, field grown and landscape ornamentals, cut flower and foliage crops listed.

IMPORTANT NOTICE: LIMITATION OF LIABILITY

This product has been researched to provide necessary data to support its use on the ornamentals listed on the label. However, it is understood that tests have not been carried out under all growing conditions for all plants listed on the label. The user should always follow the label directions and exercise good judgment and caution when using the product on any given variety until familiar with the results under his growing conditions.

The large numbers of ornamental species and cultivars has prevented Grace-Sierra from establishing tolerance of each to Rout Ornamental Herbicide. Nursery personnel may conduct simple trials to determine if Rout can be applied safely to additional on-site varieties. The user should test the recommended rate on a small group of plants for phytotoxicity prior to wide-spread use for pre-emergence weed control. The user assumes all liabilities from Rout Ornamental Herbicide application to plants treated under the above provision.

NO WARRANTY OR REPRESENTATION IS MADE, EXPRESSED, OR IMPLIED, CONCERNING THE RESULTS OBTAINED FROM THE USE OF THIS PRODUCT IF NOT USED IN ACCORDANCE WITH DIRECTIONS. The exclusive remedy of the User or Buyer, and the limit of liability of Grace-Sierra Crop Protection Company or any other Seller, for any and all losses, injuries or damages resulting from the use or handling of this product shall be the purchase price paid by the User or Buyer for the quantity of this product involved. The Buyer and all Users are deemed to have accepted the terms of this Notice, which may be varied only by agreement in writing signed by a duly authorized representative of the Grace-Sierra Crop Protection Company.

