



R-D-20

GREENHOUSE DISINFECTANT FOR ORCHIDS &
ORNAMENTALS FOR USE AGAINST FUNGAL,
BACTERIAL, ALGAL AND VIRAL PLANT PATHOGENS
AND THEIR ODORS

**RD-20 Greenhouse Disinfectant is a Concentrate and Must
be Diluted Before Use**

ACTIVE INGREDIENTS:

n-Alkyl (60%C ₁₄ , 30%C ₁₂ , 5%C ₁₈) dimethyl benzyl ammonium chloride	10.0%
n-Alkyl (68%C ₁₄ , 32%C ₁₈) dimethyl ethylbenzyl ammonium chloride	10.0%
INERT INGREDIENTS:	80.0%

TOTAL:	100.0%
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PATENT PENDING EPA Reg. No. 53642-1 EPA Est. No. 829-FL-1

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien pare que se la
explique a usted en detaile.

(If you do not understand the label, find someone to explain it to
you in detail).

DISTRIBUTED BY:

Southern Agricultural Insecticides, Inc.

**Palmetto, FL 34220 Hendersonville, NC 28793
Boone, NC 28607**

FIRST AID

IF SWALLOWED: Drink egg whites, gelatin solution or, if these are
not available, drink large quantities of water. Call a physician. **IF ON
SKIN:** Flush skin with plenty of water for at least 15 minutes.

IF IN EYES: Flush eyes with plenty of water for 15 minutes and call
a physician.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate
the use of gastric lavage.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.
Open dumping is prohibited. Do not reuse empty container.

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

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer
for recycling or reconditioning, or puncture and dispose of in a
sanitary landfill, or incineration, or if allowed by State and local
authorities, by burning. If burned, stay out of smoke.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER - CORROSIVE. Harmful or fatal if swallowed. Causes
severe eye and skin damage. Do not get in eyes, on skin or on
clothing. Avoid contamination of food.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Long-sleeved shirt
and long pants · Waterproof gloves Shoes and socks Protective
eyewear Follow manufacturer's instructions for cleaning/main-
taining PPE. If no such instructions for washables, use detergent
and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

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

Remove clothing immediately if pesticide gets inside. Then wash
thoroughly and put on clean clothing.

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

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner
inconsistent with its label. 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, de-
contamination, notification and emergency assistance. It also contains
specific instructions and exceptions pertaining to the state-
ments on this label about personal protective equipment (PPE).
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, waterproof gloves, shoes plus socks, and protective
eyewear.

GENERAL INFORMATION

R-D-20 Greenhouse Disinfectant is a general disinfectant. It will help
in the control of fungal bacterial and viral plant pathogens, bacterial
and fungal leaf rots, slime forming fungi, and odor causing bacteria
and algae. It is designed specifically for greenhouse and home use
where cross contamination may occur between plants. Pre-clean all
surfaces prior to application of the disinfectant solution. All inanimate
surfaces must be thoroughly wetted and remain wet for 10 minutes
for disinfection.

Fresh solution should be prepared daily and when solution becomes
visibly dirty.

Do not apply this product through any type of irrigation system.

Do not mix with iron based micronutrients, dye indicators or other
anionic materials.

DISINFECTING

Work areas and benches: Use 1 tbsp. R-D-20 Greenhouse Disin-
fectant per gallon of water. Spray or swab working surface before
each work period and again after each plant is completed to help
control transfer of diseases. At end of work, dry and oil tools.

Pots and Flats: Used pots and flats should be brushed or washed,
then soaked in a solution of 1 tbsp. R-D-20 Greenhouse Disinfectant
per gallon of water for 10 minutes before using to help control
transfer of diseases. At end of work, dry and oil tools.

Cutting Tools: Soak cutting edge of tool for 10 minutes in a solution
of 1 tbsp. R-D-20 Greenhouse Disinfectant per gallon of water
before use to help contra transfer of diseases. At end of work, dry
and oil tools.

Greenhouse Glass: Spray or swab surfaces with a solution of 1
tsp. R-D-20 Greenhouse Disinfectant per 1 gallon of water. Wash off
dead algae with water. Spray clean surfaces again with me solution.

Walkways: For heavy infestations, spray or swab a solution of 1
tbsp. R-D-20 Greenhouse Disinfectant per 1 gallon of water. Let
stand for an hour or more then brush and wash away dead algae.
Soak area again with me solution. Do not rinse. Allow to dry on me
surface and repeat application when algae growth returns.

***Bird Baths:** Do not use with fish. Clean to remove algae growth
prior to filling bird bath by spraying all exposed surfaces with a
solution of 1 tbsp. R-D-20 Greenhouse Disinfectant per gallon of
water. Allow to air dry and brush off dead algae.

Lawns, Golf Courses, Greens, Tees, Fairways: Spray a solu-
tion of 1 tbsp. R-D-20 Greenhouse
Disinfectant/ 1 gallon of water / 40 sq. ft. (1 pint/ 50-100 gallons of
water /10,000 sq. ft.)

Treat the entire lawn to prevent the spread of infection, or treat at
best 1 foot beyond the edges of isolated diseased areas. Saturate
the entire treatment area, wetting all plant and soil surfaces. Repeat
spray application every 10-14 days as needed. Treatment is re-
quired during the warm growing season and may be made when the
grass is dry or damp. Do not apply during wet, rainy weather or just
before irrigation or watering. Do not graze treated areas or feed
clippings to livestock.

HORTICULTURAL USAGES

Use	Diseases Controlled	Rate / gal. of water	Additional Information
'Seedlings	Damping off	1 tsp.	Treat seeds and cuttings before planting. Use an inert material for planting seeds and cuttings such as sphagnum moss, vermiculite, perlite, pumice, or sterilized commercial mix. If garden soil must be used, drench with the solution. After planting, water with the solution and again after seedlings emerge. Spray weekly as needed.
Seedlings	Downy mildew	1.5 tsp.	Spray at 5 day intervals.
Plant Cuttings (begonias, chrysanthemums, fuschias, geraniums)	Crown gall, Grey mold leaf spots, Powdery mildew	1 tsp.	Soak cuttings 2-5 minutes in the solution. Plant in compost drenched with the solution.
Bulbs (daffodils, Easter lilies, gladioli, hyacinth, iris, narcissus tulips)	Fusarium basal rot	1 tsp.	Prestorage and preplanting: treat the corms immediately after they are cleaned. Treat again immediately before planting by soaking them for 10 minutes.
Cut Flows (containers, tubes, and decorative vases)	Stem plugging (restricts water uptake) Bacteria and fungi (creates ethylene gas, a cause of petal drop)	1 tsp	Flower spikes should be hardened in solution during harvesting, storage and shipping. Treatment will also help control transfer of diseases.

ORNAMENTAL USAGES

Species	Diseases Controlled	Rate / gal. of water	Additional Information
Iris	Botrytis, crown rot, gray mold rot	1.5 tsp.	Treat all new rhizomes before planting. Submerge rhizomes and 3-4" of leaves for 30 minutes. Plant at once white still wet with solution.
Roses	Black spots, powdery mildew, rusts, stem gall	1 tsp.	Spray upper and lower surface of leaves and branches until wet. Spray several times, 7 to 10 days apart.
Calendulas, China Asters, Chrysanthemum, Crape Myrtle, Dahlias, Lilac, Live Oak, Snapdragon, etc.	Powdery mildew	1.5 tsp.	Spray upper and lower surface of haves and branches until wet. Spray when buds burst in spring and repeat 2 weeks later. Spray every 2 weeks during the mildew season. Spray live oaks at bud break and again in April.
Cactus	Bacterial leaf spot, root rots, top rot	1.5 tsp.	Dip cutting for 5 min.. in the solution before planting. Then spray at 10-14 day intervals.
Saintpaulias (African Violets)	Bud rot, crown rots, gray mold rot (botrytis), mildew root rots	3/4 tsp.	Dip plant and pot in the solution. Spray for complete coverage of al surfaces every 10 days.
Aucuba, Dahlia, Fuschia, Geranium, Gladiolus, Peony, Pieris	Botrytis downy mildew, gray mold	1 tsp.	Remove dead plant parts and apply at first sign of disease. For rust, apply at 7-14 day intervals. For botrytis, spray buds and blooms lightly 2-3 times a week. Before shipping, dip spikes in solution.
Begonias, Ferns, Gesneria spots,	Gray mold bud rot, leaf shoot rot	1 tsp.	Remove dead leaves. Spray before buds open, when blossoms show pink, when 3/4 of blossoms have fallen, and 2 weeks after petal fall.
Fuschia, Gardenia, Geranium, Heliotrope	Gray mold bud rot, stem rot	1 tsp.	At first sign of disease, pick off infected leaves and blossoms. Spray weekly as needed.
Crassula, Kalanchoe, Sedum	Crown gall, crown rots, root rots	1 tsp.	Destroy infected plants or plant parts and drench the remainder. Spray plants weekly.
Rubber Plant	Anthraxnose, crown gall	1 tsp.	At first sign of disease, pick off infected leaves. Spray weekly as needed.
Hawthorn Hollyhock, Snapdragon	Rusts	1 tsp.	Spraying should begin with the development of new leaves. Be sure under sides of infected leaves are covered with solution. Apply at weekly intervals.
Dogwood	Anthraxnose, leaf blights, loaf spots	1.5 tsp.	Spray 4 times: when flower buds begin to open, as soon as flower buds have fallen, 4 weeks later, and in late summer after flower buds are well formed.
Hawthorn	Leaf blights	1.5 tsp.	Make 3 spray applications: as soon as leaves emerge from buds, when leaves are half grown, and again when fully grown.
Snapdragon	Anthraxnose, downy mildew, phyllosticta blight, powdery mildew, rusts, stem rot, wilts	1 tsp.	Spray upper and lower sides of leaves every 7 to 10 days. Collect and burn the tops in fall.
Carnations	Canker rot, carnation rust, crown rot, gray mold rot, leaf spot, root rots, stem rot	1 tsp.	Dip cuttings in solution before planting. Spray 1-2 times just before bloom and again as flowers are opening. Collect and burn infected buds, blossoms and stems.
Trees (Sycamore, Ash, etc.)	Anthraxnose	1.5 tsp.	Apply 50-60 gal. of spray per tree for adequate coverage. Make 3 applications when buds swell in the spring, as leaves start to extend, and when leaves are 3/4 grown.
Palms	Heart rot, penicillium leaf base rot	1.5 tsp.	At first sign of rot, completely fill cup or "heart" formed by the palm branches at top center of the plant. Repeat every 7 days

ORCHIDS

Seedlings: Soak seedling 2-5 minutes before potting to remove agar. To help prevent damping-off caused by Pythium, Fusarium or Rhizopus, spray seedlings once per month as preventative maintenance. Spray any time disease is evident with a solution of 1.5 tsp. R-D-20 Greenhouse Disinfectant per gallon of water.

Adult Plants: Spray any time disease is evident with a solution of 2 tsp. R-D-20 Greenhouse Disinfectant per gallon of water. Spray once per month as preventative maintenance.

Dividing Plants: Remove compost, then soak plants for minutes in a solution of 1 tbsp. R-D-20 Greenhouse Disinfectant per gallon of water. Operate with wet hands and cutting tools. After division and root trim, soak divisions in the solution for 2 to 5 minutes. Pot in compost drenched with the R-D-20 Greenhouse Disinfectant solution.

Botrytis Petal Blight: During cool weather, spray plants, flowers and under benches at first sign of spotting on flowers. Normally, weekly sprayings will greatly reduce or eliminate the botrytis spotting. Use 1 tsp. of R-D-20 Greenhouse Disinfectant per 3 gallons of water.

Cut Flowers: containers, tubes and decorative vases. Recommend flower spikes be hardened in a solution of 1 tsp R-D-20 Greenhouse Disinfectant per gallon of water during harvesting, storage and shipping to help control the transfer of diseases.

Rots (Such as Erwinia, et al): Remove compost from plant, then soak entire plant 10 minutes or more in a solution of 1 tbsp. R-D-20 Greenhouse Disinfectant per gallon of water. Cut away all rot with treated tool. Soak plant wounds again for 10 minutes in solution. Repot in drenched compost.

Crown Rot: Spray plants weekly with a solution of 2 tsp. R-D-20 Greenhouse Disinfectant per gallon of water. **TREATMENT OF**

LAWNS, GOLF COURSES AND COMMERCIAL TURF

To control fungal diseases in turf grasses, including lawns of GRASS or DICHONDRA, including dollar spot (Sclerotinia) fusarium blight (fusarium), leaf spot (Helminthosporium), brown patch (Rhizoctonia), fading-out (Curvularia), pythium blight, rust, toad stools and fairy rings, spray a solution of 1 tbsp. R-D-20 Greenhouse Disinfectant /gal. water / 40 sq. ft. (1 pint / 50-100 gallons of water / 10,000 sq. ft.).

Treat the entire lawn to prevent the spread of infection, or treat at least 1 foot beyond the edges of isolated diseased areas. Saturate the entire treatment area, wetting all plant and soil surfaces. Repeat spray application every 10-14 days as needed. Treatment is required during the warm growing season and may be made when the grass is dry or damp. Do not apply during wet, rainy weather or just before irrigation or watering. Do not graze treated areas or feed clippings to livestock

OTHER USAGES

Mildewstat: Table tops, floors, walls. To control mold and mildew on precleaned hard, non-porous surfaces apply solution with a cloth, mop or sponge, making sure to wet all surfaces. Let air dry. Repeat at weekly intervals. Use 1.5 oz. of R-D-20 Greenhouse Disinfectant per gallon of water.

Overhead Watering Systems: During the last 2-3 minutes of watering use 1 oz. of R-D-20 Greenhouse Disinfectant per 20 gallons of water as a control program. Due to variations of growing conditions, use every 2nd to 4th watering. Will control algae in nozzles.

Evaporative Coolers: Controls algae, slime forming fungi on cooler pads and certain fungal plant pathogens that may carry over in the cooler as well as bacterial odors. Use 1 tsp. Of R-D-20 Greenhouse Disinfectant per 15 gallons of water every other week

LIMITATION OF LIABILITY

Manufacturer warrants that this product conforms to the chemical description on the label. Buyer assumes all risks of use in handling which are at variance in any way with the directions on the label. MANUFACTURER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL MANUFACTURER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. DAMAGES CAUSED BY THIS PRODUCT ARE LIMITED TO REPLACEMENT OF THE PRODUCT OR RETURN OF THE PURCHASE PRICE.

Note: this product has been tested on a wide variety of plants and in our opinion has demonstrated excellent plant safety. However, not all varieties or strains of the plants listed have been tested. Unintentional consequences such as crop injury or ineffectiveness may result because of certain environmental or growing conditions, manner of use or application, and insect resistance. Therefore, before treating a large number of plants, spray a few plants and observe for plant damage and for performance prior to full scale application. All risks shall be assumed by the user.