



**ACTIVE INGREDIENT**

Copper Sulphate Pentahydrate\*.....21.36%  
INERT INGREDIENTS.....78.64%  
100.00%

\*Copper as Metallic.....5.5%  
Contains 2.06 lbs. Active Ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN  
DANGER PELIGRO**

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:** 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:** 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 product diluted in accordance with the directions for use gets on skin, medical attention is not required.

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Drink promptly a large quantity of milk, egg white, gelatin solution, or, if these are unavailable, 1 or 2 glasses of water. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**Note to Physician:** Skin symptoms may be similar to copper allergic reactions and can be treated similarly, including the use of steroid-containing lotion. If swallowed, probable mucosal damage may contraindicate the use of gastric lavage.

**PHYSICAL OR CHEMICAL HAZARDS**

For spills, you may contact CHEMTREC at 1-800-424-9300.

U.S. Patent Nos. 4,673,687 and 6,646,000 B1  
E.P.A. REG. NO. 49538-2  
E.P.A. EST. NO. 49538-MN-001

**Phyton Corporation**  
5608 International Parkway  
New Hope, MN 1-800-356-8733  
www.phytoncorp.com  
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**SPECIMEN LABEL**

**PRECAUTIONARY STATEMENTS**

**HAZARD TO HUMANS (& DOMESTIC ANIMALS)**

**Precautionary Statements**

**DANGER:** Corrosive. Causes irreversible eye damage and skin burns. May be fatal if swallowed. Harmful if absorbed through the skin. Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

**Personal Protective Equipment (PPE)**

Applicators and other handlers must wear:  
Coveralls over long-sleeved shirt and long pants  
Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber  
Chemical-resistant footwear plus socks  
Protective eyewear. After product is diluted in accordance with the directions for use, protective eyewear is not required.  
Chemical-resistant headgear for overhead exposure

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.

**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.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE**—Do not freeze or store below 45° F. Store in original container.

**PESTICIDE DISPOSAL**— Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, 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. Open dumping is prohibited.

**CONTAINER DISPOSAL**—Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or 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.

Phyton-27® Bactericide & Fungicide

## SPECIFIC DIRECTIONS for Spray Applications in Greenhouse, Field, Landscape and Interior:

**Annual & Perennial Bedding Plants, Potted Flowering Crops, Tropical Foliage, Cut Flower Crops & Nursery Crops.** Spray for thorough foliage coverage. Re-spray rates and intervals vary with severity of disease and adversity of environmental conditions. In the event of heavy disease pressure, intervals can be shortened to 3 to 5 days. Lower rates may be as effective as higher rates and should be tried first. Routine preventive programs may be maintained at the lower rates. Rates above 1.5 fl. oz. Phyton-27® per 10 gallons water may damage some tender, open blooms. Rates up to 7 fl. oz. Phyton-27® per 10 gallons water can be used for powdery mildew on roses if no blooms are open. Use of low volume equipment is effective against Botrytis and not effective against established powdery mildew and Xanthomonas infections. Applications on actively growing tissue may be more effective than applications on dormant tissue.

<b>Annual &amp; Perennial Bedding Plants</b>		
Such as but not limited to: Dosages in fluid ounces Phyton-27® per 10 gallons water		
<b>CROP</b>	<b>PATHOGEN</b>	<b>RATE</b>
Alyssum	Botrytis	1.0 - 2.0
	Downy Mildew	1.0 - 2.0
Begonia	Botrytis	1.3 - 2.0
	Powdery Mildew	1.3 - 1.5
	Xanthomonas	1.5 - 3.0
Daylily	Botrytis	1.3 - 2.0
	Erwinia	1.5 - 2.5
	Powdery Mildew	1.5 - 2.5
Delphinium	Pseudomonas	1.5 - 2.5
Dusty Miller	Alternaria	1.5 - 2.5
	Botrytis	1.3 - 2.0
Fuchsia	Botrytis	1.3 - 2.0
	Powdery Mildew	1.3 - 2.5
Geranium	Botrytis	1.5 - 2.0
	Rust (preventive)	1.5 - 2.0
	Rust (therapeutic)	2.5 - 5.0
	Pseudomonas (preventive)	1.5 - 4.5
	Pseudomonas (therapeutic)	5.0
	Xanthomonas (preventive)	1.5 - 4.5
	Xanthomonas (therapeutic)	5.0
Impatiens	Alternaria	1.5 - 3.5
	Botrytis	1.3 - 1.5
	Pseudomonas	1.5 - 3.5
New Guinea Impatiens	Botrytis	1.3 - 1.5
Ipomoea	Powdery Mildew	1.3 - 2.0
Pansy	Pseudomonas	1.5 - 2.5
	Botrytis	1.3 - 2.0
	Cercospora	1.5 - 2.0
Perennials	Phytophthora	1.3 - 2.0
	Botrytis	1.3 - 2.0
	Downy Mildew	1.5 - 3.0
Periwinkle/ Vinca	Powdery Mildew	1.5 - 2.5
	Botrytis	1.3 - 2.0
	Phytophthora	1.5 - 2.0
Ranunculus	Bacterial Blight	1.3 - 2.0
	Botrytis	1.3 - 2.0
Salvia	Downy Mildew	1.5 - 3.0
Snapdragon	Botrytis	1.3 - 2.0
	Downy Mildew	1.3 - 2.5
	Rust	1.3 - 2.5
Zinnia	Botrytis	1.3 - 2.0
	Pseudomonas	1.3 - 2.5
	Xanthomonas	1.3 - 2.5

<b>Potted Flowering Crops</b>		
Such as but not limited to: Dosages in fluid ounces Phyton-27® per 10 gallons water		
<b>CROP</b>	<b>PATHOGEN</b>	<b>RATE</b>
African Violet	Botrytis	1.3 - 1.5
	Powdery Mildew	1.3 - 1.5
Azalea	Botrytis	1.3 - 2.5
	Colletotrichum	1.5 - 2.5
	Cylindrocladium	1.5 - 3.5
Calla lily	Botrytis	1.3 - 2.0
	Erwinia	1.3 - 2.0
Chrysanthemum	Botrytis	1.5 - 2.5
	Erwinia	1.5 - 2.5
	Powdery Mildew	1.5 - 2.5
Cyclamen	Botrytis	1.5 - 2.0
	Erwinia	1.5 - 2.0
Easter Lily	Botrytis	1.3 - 2.0
Gerbera	Botrytis	1.5 - 2.5
	Powdery Mildew	1.5 - 2.5
Hydrangea	Botrytis	1.3 - 2.5
	Powdery Mildew	1.3 - 2.5
Kalanchoe	Botrytis	1.5 - 2.5
	Erwinia	1.5 - 3.5
	Powdery Mildew	1.5 - 3.5
Lisianthus	Botrytis	1.3 - 2.0
Orchid	Botrytis	1.3 - 1.5
	Erwinia	1.5 - 4.0
	Pseudomonas	1.5 - 4.0
	Xanthomonas	1.5 - 4.0
Poinsettia	Botrytis	1.5 - 2.0
	Powdery Mildew (preventive)	1.5 - 2.0
	Powdery Mildew (therapeutic)	2.0 - 3.5
	Scab	2.0 - 3.5
	Erwinia (preventive)	1.5 - 2.0
	Erwinia (therapeutic)	2.0 - 3.5
Primula	Xanthomonas (preventive)	1.5 - 2.0
	Xanthomonas (therapeutic)	2.0 - 3.5
	Botrytis	1.3 - 2.0
	Erwinia	1.5 - 2.0
Rose bush	Black Spot (preventive)	1.5 - 3.0
	Black spot (therapeutic)	3.5 - 5.0
	Botrytis (preventive)	1.5 - 2.0
	Botrytis (therapeutic)	2.5 - 5.0
	Cylindrocladium (preventive)	1.5 - 2.0
	Cylindrocladium (therapeutic)	2.5 - 5.0
	Powdery Mildew (preventive)	1.5 - 3.0
Powdery Mildew (therapeutic)	3.5 - 5.0	
Tulip	Botrytis	1.3 - 2.0

### Tropical Foliage Crops

Such as but not limited to:

Dosages in fluid ounces Phyton-27® per 10 gallons water

CROP	PATHOGEN	RATE
Dracaena	Rust	1.5 - 2.5
Hibiscus	Botrytis	1.3 - 2.5
	Pseudomonas	1.5 - 2.5
	Xanthomonas	1.5 - 2.5
Ivy	Bacterial Leaf Spot	1.5 - 5.0
	Botrytis	1.3 - 2.0
Spathiphyllum	Botrytis	1.3 - 2.5
	Cylindrocladium	1.5 - 2.5
	Phytophthora	1.5 - 3.0
Tropical Foliage (general)	Botrytis	1.3 - 2.5
	Erwinia	2.0 - 5.0
	Powdery Mildew	1.3 - 2.5
	Pseudomonas	2.0 - 5.0
	Xanthomonas	2.0 - 5.0

### SPECIFIC DIRECTIONS for Spray and Dip Applications during Propagation

When harvesting cuttings on site, spray or fog stock plants 1 to 2 days prior to taking cuttings. Spray cuttings to drench again at same rate 2 to 3 days after sticking in rooting media, or dip cuttings for a few seconds prior to sticking.

When using rooted, callused, or unrooted cuttings shipped in, spray cuttings to drench 2 to 3 days after planting or sticking, or dip cuttings for a few seconds prior to sticking. Under severe disease pressure, repeat in 7 to 10 days.

### Herbaceous & Woody Stock Plants and Cuttings

such as by not limited to:

Dosages in fluid ounces Phyton-27® per 10 gallons water

CROP	PATHOGEN	RATE
Azalea	Cylindrocladium	1.5 - 3.5
Chrysanthemum	Erwinia	1.5 - 2.5
Geranium	Botrytis	1.5
	Xanthomonas	1.5 - 5.0
Hydrangea	Xanthomonas	1.5 - 2.5
Mini-Rose	Cylindrocladium	1.5 - 5.0
Poinsettia	Botrytis	1.5
	Erwinia	2.0 - 3.5
	Scab	2.0 - 3.5
Tropical Foliage	Cylindrocladium	1.5 - 2.5
	Erwinia	2.0 - 5.0

### Cut Flower Crops

Such as but not limited to:

Dosages in fluid ounces Phyton-27® per 10 gallons water

CROP	PATHOGEN	RATE
Gerbera	Botrytis	1.5 - 2.5
Gladiola	Botrytis	1.3 - 1.5
Lisianthus	Botrytis	1.3 - 2.0
Orchid	Botrytis	1.3 - 1.5
Rose	Botrytis	1.5 - 5.0
Zinnia	Botrytis	1.3 - 2.0

### Nursery Crops

Such as but not limited to:

Dosages in fluid ounces Phyton-27® per 10 gallons water

CROP	PATHOGEN	RATE
Azalea	Anthraco-nose	1.5 - 2.5
	Botrytis	1.3 - 2.5
	Cylindrocladium	1.5 - 3.5
	Phytophthora	2.0 - 2.5
Buxus	Volutella	1.5 - 2.5
Dogwood	Anthraco-nose	2.0 - 3.0
	Botrytis	1.3 - 2.5
	Powdery Mildew	2.0 - 3.0
Euonymus	Anthraco-nose	1.5 - 3.0
	Botrytis	1.3 - 2.5
Hawthorn	Cedar Apple Rust	1.5 - 2.5
Hydrangea	Botrytis	1.3 - 2.5
	Cercospora	1.5 - 2.5
	Powdery Mildew	1.3 - 2.5
	Xanthomonas	1.5 - 2.5
Indian Hawthorn	Botrytis	1.3 - 2.5
	Entomosporium	1.5 - 3.0
Japanese Maple	Botrytis	1.3 - 2.5
	Pseudomonas	1.5 - 2.5
	Verticillium	1.5 - 2.5
Lilac	Botrytis	1.3 - 2.5
	Powdery Mildew	1.5 - 2.5
	Pseudomonas	1.3 - 2.5
Rosaceae such as: Cotoneaster, Malus, Mountain Ash, Ornamental Crabapple, Ornamental Pear, Pyracantha	Apple Scab	4.0
	Botrytis	1.3 - 2.5
	Fireblight	2.0 - 4.0
	Pseudomonas	1.5 - 3.5
Rhododendron	<i>See Soil Drench Applications for Rates</i>	
Rose	<i>See Flowering Potted Crops for Rates</i>	
Woody Nursery Crops	Botrytis	1.3 - 2.5
	Powdery Mildew	2.0 - 2.5
	Pseudomonas	1.5 - 3.5
	Rhizoctonia	1.3 - 2.5
<b>Non Bearing Fruit Trees and Vines</b> (Do not apply to trees that will bear fruit within one year.)		
Apple	Fire Blight	2.0 - 4.0
Grape	Botrytis	1.3 - 2.5

### SPECIFIC DIRECTIONS for Post-Harvest Dip Applications on Cut Flower Crops

Dip cut flowers/buds for a few seconds soon after cutting. Adjust dip mixture to pH 5.5 - 6.5.

6 tsp. = one fluid ounce = 29.5 ml.

Dosages in teaspoons Phyton-27® per 5 gallons water

CROP	PATHOGEN	RATE
Alstromeria	Botrytis	3/4 - 1 tsp.
Freesia	Botrytis	3/4 - 1 tsp.
Gladiola	Botrytis	1.5 - 3 tsp.
Rose	Botrytis	3 - 3 3/4 tsp.
Sweetpea	Botrytis	1 - 2 tsp.

**SPECIFIC DIRECTIONS for Bulb Dip Applications**

Dip bulbs for 5 minutes, or spray bulbs to drip, then allow to dry before planting.

Dosages in fluid ounces Phyton-27® per 10 gallons water

CROP	PATHOGEN	RATE
Calla Lily	Erwinia	3.0

**Soil Drench Applications -  
Greenhouse, Field, Landscape & Interior**

Dosage in fluid ounces of Phyton-27® per 10 gallons water

CROP	PATHOGEN	RATE
African Violet	Phytophthora	1.3 - 2.0
Aster	Phytophthora	2.0 - 3.0
Azalea	Cylindrocladium	3.0 - 6.5
	Rhizoctonia	3.0 - 6.5
Cyclamen	Erwinia	1.5
Ferns	Rhizoctonia	1.5 - 3.0
Geranium	Botrytis	5.0
Hosta	Erwinia	1.5 - 2.5
Impatiens	Phytophthora	2.0 - 3.5
Japanese Maple	Verticillium	2.5
Pansy	Phytophthora	1.5 - 2.5
	Pythium	1.5 - 2.5
Periwinkle	Phytophthora	1.5 - 2.0
Pittosporum	Rhizoctonia	1.5 - 2.0
Poinsettia	Rhizoctonia	2.0 - 3.5
Rhododendron	Rhizoctonia	3.0
Rose	Black Spot	2.0 - 3.5
Spathiphyllum	Phytophthora	2.0 - 3.5

**GENERAL DIRECTIONS**

**Mixing** - Shake well before mixing with water. Use within 48 hours after mixing. Adjust pH of solution to 5.5 - 6.5. Liquid equivalents: one fluid ounce=29.5 milliliters =6 teaspoons.

**Application** - Phyton-27® can be applied with any type of application equipment that gives uniform coverage of all foliage, including ground, aerial, and low volume sprayers and chemigation equipment specified on this label. The volume of water needed will depend on the spray equipment and the size of the crop. Use in sufficient water to provide thorough coverage. Low volume applications require conversion of ounces/volume to ounces/area. Phyton-27® can be used up to the time of harvest. Metal piping or equipment used for application should be brass or stainless steel.

**Compatibility** - Compatible with most fungal and insecticidal biopesticides when applied at least 2 days before or after application of the biopesticide. Do not tank mix Phyton-27® with B-NINE and do not apply Phyton-27® within seven (7) days either before or after applications of B-NINE, as burning of leaves may result. Do not tank mix Phyton-27® with strongly acidic compounds such as Aliette, and do not apply Phyton-27® within 14 days either before or after applications of such products.

**Plant Safety** - Phytotoxicity: Phyton-27® has been tested on a wide variety of herbaceous and woody ornamental plants without phytotoxicity symptoms. However, because it is not possible to test all ornamental plant species, varieties and cultivars and because environmental factors and varietal stage of growth may affect phytotoxic expression, it is recommended that a small group of test plants be treated at the anticipated dosage rate and observed for 5 to 7 days to determine phytotoxicity before treating large numbers of those plants.

**SPECIFIC DIRECTIONS for Injection Applications:  
Shade & Ornamental Trees**

**ELM**, Trunk injection, **Dutch elm disease** and **Cankers (Botryodiplodia Cytospora Tubercularia)**. Inject once during the growing season for control or prevention. Injection sites should be six inches or less above the soil line. Injection should not be done against Dutch elm disease if the elm appears more than 20% diseased or if the disease may have entered through root grafts from another diseased tree or stump. Remove dead and diseased limbs within 10 days after treatment.

Dosage by elm size (diameter at breast ht.)	Phyton-27® fl. oz.	Water gallons
12 to 19 inches dbh	2	2
20 to 26 inches dbh	3	3
27 to 33 inches dbh	4	4
34 to 40 inches dbh	5	5
41 to 48 inches dbh	6	6

Use the red oak dosage for red (slippery) elm.

**OAKS, Oak Wilt** and **Phytophthora**. Trunk injection. On red oak, use preventively only. Follow injection directions for elm, taking care that holes are not too deep on shallow-barked oaks. Treatment is best in the month before fall color in northern climates.

Dosage by tree variety and size	Fluid Ounces Phyton-27®		Water gallons
	Red Oaks/Red Elm	Oaks	
12 to 19 inches dbh	1.0	1.5	3
20 to 26 inches dbh	1.5	2.0	4.5
27 to 33 inches dbh	2.0	3.0	6
34 to 40 inches dbh	2.5	3.5	7.5
41 to 48 inches dbh	3.0	4.5	9

**SHADE TREE CANKERS. Cytospora** on GREEN ASH, PAPER BIRCH, COTTONWOOD; **Botryodiplodia** and **Cytospora** on HACKBERRY, SILVER MAPLE; **Nectria** on HONEY LOCUST. Trunk injection. Follow injection directions for elm.

Dosage by tree size	Phyton-27® fl. oz.	Water
10 inches dbh	1.3	1 gallon
20 inches dbh	2.5	2 gallons

### **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 allow workers to enter into treated areas during the restricted entry interval (REI) of 24 hours.

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, wear:

Coveralls over long-sleeved shirt and long pants

Chemical-resistant footwear plus socks

Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber

### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses 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 children and pets off treated area until dry.

Do not enter treated area without protective clothing until the sprays have dried.

### **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.

### **NOTICE:**

Our recommendations for use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice, including but not limited to over-fertilization or senescing plant tissue. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, presence of other materials, the manner of application, or other factors, all of which are beyond the control of the manufacturer. All such risks shall be assumed by the buyer. The exclusive remedy is the product purchase price. Phyton-27® is reported compatible with many registered pesticides. However, before adopting the use of additives and/or combinations for general applications, test for physical compatibility and noninjury under your conditions of use. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such or in combination with other materials as tank mix or applied separately.

### **USE DIRECTIONS FOR CHEMIGATION**

The following precautions must be observed when using this product in any type of irrigation system:

Apply this product only through overhead sprinkler, including center pivot, lateral move, end tow, side (wheel) row, big gun, solid set, or hand move; drip (trickle); or flood (basin) irrigation system(s).

Do not apply this product through any other type of irrigation equipment.

Metal piping or equipment used for application should be brass or stainless steel.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers or other experts.

Do not connect an irrigation system, (including greenhouse system), used for pesticide application to a public water system unless the pesticide safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Agitation in the pesticide supply tank is recommended once every 2 hours and may be more frequent or continuous.

The dosage rate should not be diluted by additional water applied as irrigation. Apply the prescribed rate and allow foliar surfaces to dry before irrigating. If irrigation precedes Phyton-27® application, allow foliage to drip off before beginning the application.

To optimize dilution of the pesticide in the supply tank, first add Phyton-27® to a small amount of water, room temperature or warmer, and mix gently until evenly dispersed.

## **REQUIREMENTS FOR SPRINKLER & DRIP CHEMIGATION**

Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements:

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

## **REQUIREMENTS FOR FLOOD CHEMIGATION**

Observe all the requirements in the USE DIRECTIONS FOR CHEMIGATION section and the following additional requirements:

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from back flow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## **SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## **POSTING**

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corner of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.