

#### U.S. ENVIRONMENTAL PROTECTION **AGENCY**

Office of Pesticide Programs Registration Division (7504P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460

NOTICE OF PESTICIDE:

Registration

X Reregistration

(under FIFRA, as amended)

EPA	Reg.	Number

Date of Issuance:

64744-1

JUN 2 9 2010

Term of Issuance:

Name of Pesticide Product:

Funguran OH 50WP

Name and Address of Registrant (include ZIP Code):

Spiess-Urania Chemicals GMBH

Heidenkampsweg 77

D-20097 Hamburg, Germany

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is reregistered in accordance with FIFRA provided that you:

1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.

Signature of Approving Official:

Tony Kish

Product Manager 22 Fungicide Branch

Registration Division (7504P)

Date:

JUN 2 9 2010

- 2) To the label you must specify an area to the Use Directions to treat crown or collar rot on apples, citrus, lettuce, mangoes, philodendron, sycamore and other ornamentals, and to treat brown rot, blossom blight, and bacterial spot on peaches and nectarines. See the attached table for the correct rates.
- 3) To the Directions for Use table a column between the 2<sup>nd</sup> and 3<sup>rd</sup> column for "Max. Annual Rate A (Lbs Product/A)" must be added. See the attached table for the correct rates.
- 4) Based on toxicity ranking per the acute toxicity review, the First Aid statements should be placed on the label in the following order:

IF IN EYES
IF SWALLOWED
IF ON SKIN OR CLOTHING
IF INHALED

5) The "If Swallowed" First Aid statement must be revised to read:

#### IF SWALLOWED:

Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

6) Per the acute toxicity review, the Hazards to Humans and Domestic Animals must be revised to read:

#### "DANGER

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Harmful if swallowed or absorbed through the skin. Harmful if inhaled. Avoid contact with skin. Avoid breathing vapor or spray mist."

- 7) Per the acute toxicity review and the RED, the handler PPE section must be revised to read:
- "Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear the following: Long-sleeved and long pants, Shoes and socks,

Chemical-resistant gloves, and Goggles or faceshield."

- 8) Per the Coppers RED label table, the text in bold type below must be added to the following User Safety Requirements:
- "...If no such instructions for washables exist, use detergent and hot water..."
- 9) Per the RED, the text "Discard clothing and other absorbent material that have been drenched or heavily contaminated with liquid from this product" currently on the label must be revised to read "Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate."
- 10) Per the RED, the User Safety Recommendations statements must be revised to read as specified below and must be placed in a separate box removed from the other precautionary statements:

"User Safety Recommendations

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

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Wash the outside of gloves before removing."

11) The Environmental Hazards section text currently on the label must be revised per the text below.

"This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

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 or rinsate."

- 12) The additional statement currently included in the Environmental Hazards section of the draft label must be removed.
- 13) The following eye wash text must be added to the Agricultural Use Requirements box on the draft label below the early entry PPE requirements:

"For at least seven days following the application of copper-containing products in greenhouses:

- at least one container or station designed specifically for flushing eyes is available in operating condition with the WPS-required decontamination supplies for workers entering the area treated with copper-containing products
- workers are informed orally, in a manner they can understand:
- that residues in the treated area may be highly irritating to their eyes
- that they should take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes
- that if they do get residues in their eyes, they should immediately flush their eyes with the eye flush container or eye flush station that is located with the decontamination supplies
- how to operate the eye flush container or eye flush station."
- 14) Spray drift text must be added to the Directions for Use section of the draft label and must read:

#### "Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and the method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluated all factors and make appropriate adjustments when applying this product.

#### **Droplet Size**

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

#### Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

#### Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

#### Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### For aerial application:

- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
- When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

#### For groundboom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy."

- 16) Directions for Use, Apple, Fireblight: The comments section of the draft label notes that this application is made between silver-tip and green tip. Per the Coppers RED Appendix A, the minimum retreatment interval must be reduced to 0, and the text "Only one application per season is permitted" must be added to this section of the label.
- 17) Directions for Use, Apricots: The comments section of the draft label notes that this application is made at popcorn to full bloom. This is assumed to be during bloom, growing season. Per the Coppers RED Appendix A, the "App. Rate (lbs product / A)" must be reduced to 3, and the "Max. app rate (lbs Cu2+ / A)" must be reduced to 1.5.
- 18) Directions for Use, Hops: Per the Coppers RED Appendix A, the "App. Rate (lbs product / A)" must be reduced to 1.06.
- 19) Directions for Use, Live oak: Live oak is considered an ornamental. Per the Coppers RED Appendix A, the "App. Rate (lbs product / A)" must be reduced to 4, the "Max. app rate (lbs Cu2+ / A)" must be reduced to 2, and the "Max. annual rate (lbs Cu2+ / A)" must be reduced to 20.
- 20) Directions for Use, Sycamore: Sycamore is considered an ornamental. Per the Coppers RED Appendix A, the "Max. app rate (lbs Cu2+/A)" must be reduced to 2 and the "Max. annual rate (lbs Cu2+/A)" must be reduced to 20.

To coffee, change "5.5" to "4.2".

- 21) The Directions for Use for tomatoes in the draft label do not specify whether they apply to fresh market tomatoes or processing tomatoes. The maximum application rates in the draft label seem consistent with the processing tomato rates as listed in the Coppers RED Label Table. If this is the case, the draft label should specify "Tomatoes (processing)" in the crop column. If the registrant's intent is to treat either processing tomatoes or fresh market tomatoes, the "Max annual rate (lbs Cu2+/A)" must be reduced to 8. Alternatively, the registrant could add separate Directions for Use for fresh market and processing tomatoes and use the different maximum rates as listed in the Coppers RED Label Table.
- 22) The Directions for Use for control of disease on ornamentals in greenhouses, fields, and nurseries (page 13 of the draft label) lists the maximum application rate as one pound product per 100 gallons of water. The following information must be added to this section of the draft label: the maximum application rate per area (4 lbs product per acre per application, 2 lbs copper per acre per application); and seasonal maximum application rate (40 lbs product per acre per year, 20 lbs copper per acre per year).
- 23) On page 4, delete "Do not enter or allow others to enter until dusts have settled". On page 13, fix the typo "labelling". On page 13, change "recommended rate" to "specified rate". On page 14, change "Storage" to "Pesticide Storage".
- 24) On the front page, change the metallic copper equivalent to "50.1%".

A stamped copy of the label is enclosed for your records. You must submit one copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this letter or the next round of printing must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these conditions. This label supersedes all other previously accepted labels. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

Enclosure:

Product Chemistry Review Acute Toxicology Review

Table of Approved Use Rates/Crops

### FUNGURAN®OH 50WP

 Active Ingredient:
 77.0%

 Copper Hydroxide\*⁺
 77.0%

 Inert Ingredients
 23.0%

 Total:
 100.0%

\*Metallic Copper (Cu<sup>2+)</sup> Equivalent. 50.0% by weight

<sup>†</sup> CAS No. 20427-59-2

50,11.

## 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.)

See back panel for additional precautionary statements

	FIRST AID		
If In Eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
If On Skin Or Clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>		
If Swallowed	<ul> <li>Call poison control center or doctor for treatment advice.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>		
Move person to fresh air.  If Inhaled  If person is not breathing, call 911 or an ambulance, then give artificial response preferably mouth-to-mouth, if possible.  Call poison control center or doctor for treatment advice.			
	HOT LINE NUMBER		
	or label with you when calling a poison control center or doctor or going for treatment HEMTREC (800) 424-9300 (24 hours) for emergency medical treatment information.		
Note to Physicia	an: Probable mucosal damage may contraindicate the use of gastric lavage.		
	See side/back panels for additional precautionary statements		

EPA No. 64744-1

EPA Est. No.064744-GE-001

NET CONTENTS: 22.0 lbs. / 10 kg.

ACCEPTED with COMMENTS In EPA Letter Dated: JUN 2 9 2010

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

647014-1

MANUFACTURED BY: SPIESS-URANIA CHEMICALS GMBH HEIDENKAMPSWEG 77 D-20097 Hamburg

Germany

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER - PELIGRO

Corrosive. Causes irreversible eye damage, and causes irritation to the skin and mucous membranes. May be fatal if swallowed. Do not get in eyes, skin, or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators and other handlers must wear the following:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl
  chloride
- Shoes plus socks
- Protective eyewear

Some materials that are chemical-resistant to this product are: polyethylene, polyvinyl chloride, barrier-laminate, and butyl, nitrile, neoprene, and natural rubber. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

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.

Discard clothing and other absorbent material that have been drenched or heavily contaminated with liquid from this product. Do not reuse them.

#### **USER SAFETY RECOMMENDATIONS**

Users must: wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing/PPE 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.

Wash the outside of gloves before reusing.

#### -3

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not allow rinsate from cleaning of equipment to enter surface or ground water.

For terrestrial uses: 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 contaminate water when disposing of equipment washwater or rinsate.

This product may contaminate water through runoff. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. For terrestrial uses, 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 wash-waters or rinsate.

Certain water conditions including low pH (≤6.5), low dissolved organic carbon (DOC) levels (3.0 mg/L or lower), and "soft" waters (i.e., alkalinity less than 50 mg/L), increases the potential acute toxicity to non-target aquatic organism.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

#### DIRECTIONS FOR USE

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

This pesticide is toxic to fish and aquatic invertebrates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other water unless in accordance with requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Do not contaminate water when disposing of equipment washwaters or rinsate.

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 requirements specific to your State or Tribe, consult the State or Tribe agency responsible for pesticide regulations.

#### 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, greenhouses and handlers of agricultural insecticides. 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 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

- Coveralls
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

#### 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.

Applicators & other handlers who handle this pesticide for use NOT covered by the Worker Protection Standard (40 CFR 170) must wear: long-sleeved shirt, chemical resistant gloves made of waterproof material (such as polyvinyl chloride, nitrile rubber or butyl rubber), shoes plus socks, and protective eyewear.

Do not enter or allow others to enter until sprays have dried.

Do not enter or allow others to enter until dusts have settled.

#### **GENERAL INSTRUCTIONS**

Use FUNGURAN <sup>(R)</sup>-OH as noted below. FUNGURAN <sup>(R)</sup>-OH is adaptable to spraying from all types of spray equipment. Depending on the equipment used and the specific crop, the volume applied per acre will differ. For dilution, high volume sprays: use from 25 to 100 gallons of water per acre (GPA) for most vegetable crops, 400 to 800 GPA for fruit orchards and up to 1500 GPA as may be required for large citrus groves. For concentrate ground sprays apply from 5 to 20 GPA for most vegetable crops and 25 to 100 GPA for fruit and nut crops. For aerial spraying, 3 to 15 GPA are commonly used. No additional surfactants are needed. Add FUNGURAN <sup>(R)</sup>-OH slowly to a spray tank partially filled with water. Spreader stickers, insecticides, nutrients, etc. should be added at last.

Observe all cautions and limitations on labels of all products used in mixtures.

The following specific instructions are based on general applications. The recommendations of State Agricultural Extension Services should be closely followed as to timing, frequency and number of sprays per season.

#### **DIRECTIONS FOR USE**

Use high rate when conditions are favourable for disease development or when signs and symptoms of disease are present. Use lower rate when conditions are less favourable for disease.

CROP	DISEASE	APP. RATE (LBS PRODUCT/ A)*	MAX. APP. RATE (LBS CU <sup>2*</sup> /A)	MAX. ANNUAL RATE (LBS CU <sup>2+</sup> /A)	MIN. RETREATME NT INTERVAL (DAYS)	COMMENTS ,
Alfalfa	Cercospora & Leptosphaerulina Leaf Spots	1.06	0.53	1.12	30	Apply before each harvest or earlier if disease threatens. Apply with ground or aerial equipment. Spray injury may occur with sensitive varieties such as Lahontan.
Almonds  Coryneum Blight & Blossom Brown Rot  Bacterial Blast (Pseudomonas)	6-12 lbs per acre [2-3 lbs per 100 gallons of water (300-400 GPA)]	8	18	7	Apply late dormant before foliage buds swell if frequent rainfall occurs. A second application should be made during the early bloom stage (popcorn).	
		9-16 lbs per acre [3-4 pounds per 100 gallons of water (300-400 GPA)]	8	18	7	Use at dormant to early pink bud.
	Bacterial Blast (Pseudomonas)	0.25 lbs per 100 gallons	1.5	18	14	For blast control in sprinkler irrigated orchards or where disease is severe, apply 2-4 sprays at 0.25 pound per 100 gallons at 2 week post-bloom intervals or just before sprinkling. Slight leaf injury may occur from post-bloom spray.

CROP	DISEASE	APP. RATE (LBS PRODUCT/ A)*	MAX. APP. RATE (LBS CU <sup>2+</sup> /A)	MAX. ANNUAL RATE (LBS CU <sup>2+</sup> /A)	MIN. RETREATME NT INTERVAL (DAYS)	COMMENTS
Apple	Anthracnose, European Canker, Pseudomonas	9-16 lbs per acre [3-4 pounds per 100 gallons (300-400 GPA)]	8	16	(Only one application per season)	Apply before fall rains. Use on yellow varieties may cause discoloration. To avoid, pick before spraying.
	Fireblight	1lb per acre (1 pound/100 gallons of water per acre)	0.5	16	5	Apply as a full cover spray.  Make application between silver-tip and green-tip.  Attention: Phytotoxicity may occur from late application. (Discontinue use when greentip is 1/2-inch).
Apple Cont'd	Crown or Collar Rot	0.16 lbs per tree [4 pounds in 100 gallons of water (4 gallons per tree]	8	16	(Only one application per season)	Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply either in early spring or in fall after harvest each year. Do not use if soil pH is below 5.5 or copper toxicity may result.
Apricots	Coryneum Blight (Shot Hole) & Blossom Brown Rot	6-12 lbs per acre [2-3 pounds per 100 gallons (300-400 GPA)]	3 <sub>1.</sub>	18	5	Apply at popcom to full bloom. To avoid spray injury, do not apply after bloom.
Avocados	Scab	2-6.3 lbs per acre [2 pounds per 100 gallons]	3.15	18.9	Monthly intervals for 5 to 6 applications	Application amount depending on equipment. Apply when bloom buds begin to swell. Follow recommendations of State Agricultural Experiment Stations.
Bananas Sigatok	Sigatoka	2 pounds per acre in 3 gallons of water containing 0.5 gallon agricultural oil	1.05	18.9	14	Apply on a 14 day schedule throughout the wet season. Apply at 21 days intervals during dry periods.
	Black Pitting	2.1 lbs per acre (2.1 pounds per 100 gallons)	1.05	18.9	7	Apply directly to the fruit stem and include the basal portion of the leaf crown. Apply during the first and second week after emergence.
Beans	Bacterial Blight (Halo & Common)	1-1.58lbs per acre	0.79	4.74	7-14	For protective sprays, apply first application when plants are six inches high. Apply on 7-14 days schedule depending on local conditions. Use 1-1.58 pounds per acre depending on disease severity.

))

•

CROP	DISEASE	APP. RATE (LBS PRODUCT/ A)*	MAX. APP. RATE (LBS CU <sup>2*</sup> /A)	MAX. ANNUAL RATE (LBS CU <sup>2+</sup> /A)	MIN. RETREATME NT INTERVAL (DAYS)	COMMENTS
Brambles (Blackberry Santiam, Logan, Boysen, Marion, Aurora, Cascade, Chehale, Thornless Evergreen)	Leaf & Cane Spot	4lbs per acre (4lbs plus 1 quart of superior oil per 100 gallons)	2	10	7	Apply delayed dormant spray after training in spring at 4 pounds plus 1 quart superior-type oil per 100 gallons. Make fall spray application after harvest using 4 pounds plus 1 quart superior-type oil per 100 gallons.
Broccoli, Brussel Sprouts, Cabbage, Cauliflower	Downy Mildew	1lb per acre (0.5 to 1 pound in a minimum of 25 GPA)	0.53	2.65	7	
	Black Rot (Xanthomonas) & Black Leaf Spot (Alternaria)	1.06 pounds per acre in a minimum of 25 GPA	0.53	2.65	7 to 10	CABBAGE ONLY (Attention: A slight reddening of older leaves may occur on broccoli and a slight flecking of wrapper leaves may occur on cabbage at the two pound rate). For control of diseases of these crops, begin applications after transplants are set in the field, or shortly after emergence of field-seeded crops or when conditions favour disease development.
Cacao	Black Pod	2 to 4.5	2.25	15.75	14 to 21	Begin applications at the start of the rainy season and continue while infection conditions persist. Sprays should be made as often as 14 to 21 days in high rainfall areas at varying rates from 2 to 4.5 pounds per acre depending on disease severity.
Cantaloupe Honey Dew Muskmelon	Downy Mildew	2	1.05	5.25	5	Apply before disease appears.
Carrots	Carrot Blight (Cercospora)	2	1	5	7 to 14	Apply when disease threatens at 7 to 14 day intervals depending on disease severity.
Celery	Early, Late & Bacterial Blights	2	1	5.3	7	Apply as soon as plants are first established in the field, then every 7 days depending on severity and weather. One or two quarts of suitable agricultural spray oil per acre may be used as spreadersticker.
Cherry	Dead Bud (Pseudomonas syringae) & Coryneum Blight	6 pounds plus 1 pint superior- type oil per 100 gallons (16 lbs per acre maximum)	8	18	7	Apply in October (before heavy fall rains) and again in January. In orchards where the disease is severe, a spray should also be applied in August.

 $\sum_{i=1}^{n}$ 

CROP	DISEASE	APP. RATE (LBS PRODUCT/ A)*	MAX. APP. RATE (LBS CU <sup>2+</sup> /A)	MAX. ANNUAL RATE (LBS CU <sup>2+</sup> /A)	MIN. RETREATME NT INTERVAL (DAYS)	COMMENTS
	Brown Rot Blossom Blight	2-3 lbs per acre (2-3 pounds per 100 gallons)	1.5	18	5	For adequate control apply as a full cover spray at popcom and full bloom.
Citrus	Melanose, Scab, Greasy Spot & Pink Pitting	0.75 to 1.5 pounds per 100 gallons	3.15	12.6	7	Apply as pre-bloom and post bloom sprays. Use 0.75 to 1.5 pounds per 100 gallons, depending on disease severity. May be used in concentrate sprays at equivalent rates.
		6 pounds per 100 gallons	3.15	12.6	7	For aerial application use 6 pounds per 100 gallons per acre.
						Use as dilute spray or at
·	Brown Rot	0.5 to 1 pound per 100 gallons	3.15	12.6	7	equivalent rate as concentrate spray depending on severity of disease. Begin application in fall before or just after first heavy rains. Apply to skirts of trees to a height of at least 4 feet. Apply also to bare ground one foot beyond skirt. (California only) In areas subject to copper injury, add 1/2 to 1 pound of high quality lime per pound.
Coffee	Iron Spot (Cercospora coffeicola) & Pink Disease (Corticium salmonicolor)	2	2.1	12.6	14	Apply as a concentrate or dilute spray. Begin treatment at start of wet season and continue at monthly intervals for three applications.
	Leaf Rust (Brazil)	3.5 to 4.2 pounds per acre	2.1	12.6	3 to 4 week intervals	Apply at 3.5 to 5.5 pounds pe acre for average density plantations. Make application from September to March depending on altitude and local recommendations. Apply at 3 to 4 week intervals depending on disease severit and rainfall conditions
Cranberry	Fruit Rot	4.2 pounds per acre	2.1	6.3	7	Apply beginning in late bloom One or two additional applications made at 74 day intervals may be required, depending on disease pressure. Follow the advice of the State Agricultural Extension Service.
Cucumbers	Angular Leaf Spot & Downy Mildew	1.5 to 2 pounds per acre.	1.05	5.25	7	Apply once the plants begin t vine.

(C)

()

CROP	DISEASE	APP. RATE (LBS PRODUCT/ A)*	MAX. APP. RATE (LBS CU <sup>2+</sup> /A)	MAX. ANNUAL RATE (LBS CU <sup>2+</sup> /A)	MIN. RETREATME NT INTERVAL (DAYS)	COMMENTS
Currents Gooseberry	Leaf Spot	5 pounds per acre	2.5	10	10	Make three applications starting after harvest, before bloom and after petal fall.
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	1.58	0.79	7.9	7 to 10	Apply before disease appears.
Filberts	Bacterial Blight	4-6 pounds plus 1 pint superior- type oil per 100 gallons	6	24	14	Apply in late August or early September. In seasons of heavy rainfall, apply another spray when three-fourths of the leaves have dropped. Permitted only in the states of Washington and Oregon.
Grapes	Black Rot, Powdery Mildew & Downy Mildew	2 pounds with 2-6 pounds hydrated lime per acre	3	20	3	Apply as a dilute or concentrate spray. Use for the last one or two late summer applications following early season application of another fungicide. Follow State schedule for exact timing. (Attention: Slight to severe foliage injury may occur on copper-sensitive varieties such as Concord, Delaware, Niagara, and Rosette).
Hops	Downy Mildew	2 pounds	0.53	2.65	10	Apply as a fungicide crown treatment (after pruning, but before training) as needed. After training, additional fungicide treatments are needed. Discontinue use 2 weeks before harvest.
Lettuce	Downy Mildew	1-2 pounds per 100 gallons of water	1	8	7-10	Begin treatment when disease first appears as needed to suppress disease.
Live Oak	Ball Moss (Texas only)	6 lbs per acre 6 pounds per 100 gallons of water	3.15	25.2 20	7	Apply in spring after heavy rain, using ,1.5 gallons of spray.per foot of tree height. Make sure to wet tufts thoroughly. A second application may be required after 12 months.
Mango (Florida)	Anthracnose	2 pounds per 100 gallons or 8-10 gallons per acre	2.6	18.2	30	Apply monthly after fruit set until harvest at 2 pounds per 100 gallons or 8-10 gallons per acre at depending on equipment. Consult Extension Service for State recommendations. Not for use in California.
Olives (California)	Peacock Spot	2-3 pounds per 100 gallons or at 6.3 pounds per acre	3.15	6.3	30	Make first application at 2-3 pounds per 100 gallons or at 6.3pounds per acre depending on equipment before winter rains fall. A second application in early spring should be madif disease is severe.
Onion	Purple Blotch & Downy Mildew	2	1	6	7 to 10	Apply when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals.

 $\bigcap$ 

CROP	DISEASE	APP. RATE (LBS PRODUCT/ A)*	MAX. APP. RATE (LBS CU <sup>2+</sup> /A)	MAX. ANNUAL RATE (LBS CU <sup>2+</sup> /A)	MIN. RETREATME NT INTERVAL (DAYS)	COMMENTS
Peaches & Leaf Curl & Coryneum B (Shot Hole)	Coryneum Blight	Use 16 pounds per acre [2-4 pounds per 100 gallons (minimum of 8 lbs/acre)]	8	18	7	Dormant application, apply at leaf fall. Dilute: Apply 2-4 pounds per 100 gallons (minimum of 8 lbs/acre). Use 16 pounds per acre when rainfall is very heavy and disease pressure is high. Concentrate: Apply at equivalent rates in approximately 100 gallons of water. May be used with agricultural spray oil.
	Brown Rot Blossom Blight	2 or 3 pounds per 100 gallons	1.5	18	5	Apply at 2 or 3 pounds per 100 gallons as a full cover spray at pink bud. (Application at this time also affords some control of Leaf Curl and Coryneum Blight).
Peaches & Nectarines Cont'd	Bacterial Spot	2 pounds per 100 gallons.	8	18	7	Dormant application, apply at 2 pounds per 100 gallons.
		0.25 lb per 100 gallons	1.5	18	5	Post bloom, apply 1/4 pound per 100 gallons at first and second cover sprays. Do not spray later than three weeks prior to harvest. Do not use at rates above those recommended. (Attention: Slight defoliation and spotting of leaves may occur from use in cover sprays).
Peanuts	Cercospora Leaf Spot	Make ground or aerial application at 1.58 pounds per acre. For aerial application use 3-10 gallons of water	0.79	4.74	10-14	Begin spraying 40-45 days after planting or when disease symptoms appear. Make ground or aerial application at 1.58 pounds per acre. For aerial application use 3-10 gallons of water. Continue applications at 10-14 day intervals. Use in sufficient water to get adequate coverage. One to two quarts of a 6-pound flowable sulphur may be added.
	Fire Blight	0.25 pound per 100 gallons or 1 pound per acre	0.5	16	. 5	Apply at 5 days intervals throughout bloom period.
	Pseudomonas Blight	9-16 lbs per acre [3-4 pounds per 100 gallons (300-400 GPA)]	8	16	0 (Only one application per season)	Apply before fall rains and again at dormant before spring growth starts. Excessive dosages may cause fruit russet.
Peas	Powdery Mildew	1.58 pounds per acre	0.79	3.95	7	Begin spray treatment when disease symptoms first appear. Use according to disease severity.
Peppers	Bacterial Spot	1.58 pounds per acre	0.79	11.85	7 to 14	When disease threatens, apply in sufficient water for adequate coverage at 7 to 14 day intervals depending on disease severity.

CROP	DISEASE	APP. RATE (LBS PRODUCT/ A)*	MAX. APP. RATE (LBS CU <sup>2+</sup> /A)	MAX. ANNUAL RATE (LBS CU <sup>2*</sup> /A)	MIN. RETREATME NT INTERVAL (DAYS)	COMMENTS
Philodendron	Bacterial Leaf Spot	1.5 pounds plus 1.5 pounds of a coordination product of maneb and zinc (80 % active compound) per 100 gallons of water	2	20	7	Apply weekly before disease appears.
Potatoes	Early & Late Blight	1 to 1.5 pounds per light 3-4 pounds per acre - severe.	2.5	25	7 to 10	Apply at 7 to 10 day intervals starting when plants are six inches high until two weeks before harvest. Use 1 to 1.5 pounds per acre in those locations where disease is light and up to 3-4 pounds per acre where disease is more severe.
Pumpkin Squash	Powdery Mildew	1.5 to 2.1 pounds per acre	1.05	5.25	7	Begin applications when plants are 3 weeks old or when first disease symptoms appear. Use at weekly intervals depending on disease severity.
Strawberries	Leaf Spot & Leaf Blight	2-3 pounds in 100 gallons per acre (depending on severity)	1.5	8.19	7	Begin application, when plants are established and continue season. Discontinue applications if signs of phytotoxicity appear.
Sugar Beets	Cercospora Leaf Spot	.2.62 pounds per acre	1.31	7.86	10-14	Start spray when disease threatens and continue for 4 to 5 applications depending on weather conditions and disease severity. Addition of suitable agricultural spray oil ir recommended at 2 quarts per acre.
Sycamore	Anthracnose	2-3 pounds per 100 gallons	3.15	25.2	7-14	Make two applications as a full cover spray. Make first application at bud crack and second application 7-14 days later at 10% leaf expansion.

CROP	DISEASE	APP. RATE (LBS PRODUCT/ A)*	MAX. APP. RATE (LBS CU <sup>2*</sup> /A)	MAX. ANNUAL RATE (LBS CU <sup>2*</sup> /A)	MIN. RETREATME NT INTERVAL (DAYS)	COMMENTS
Tomatoes	Early Blight	1.06 pounds per acre	0.53	17.4	3	Apply when disease threatens.
	Bacterial Speck	1.06 pounds per acre	0.53	17.4	5-15	Apply when the disease threatens. Use more frequent applications when disease pressure is high.
	Bacterial Spot	1.06 pounds per acre	0.53	17.4	3	Apply when disease threatens; apply more frequently when disease is severe. May be combined with 1.5 to 2 pounds per acre maneb or coordination product of maneb and zinc (80% active compound). When maneb or the coordination product of zinc and maneb is used in combination, do not apply within five days of harvest.
Walnut	Walnut Blight	6.3 lbs per acre	3.15	25.2	7	Apply first spray at early pre- bloom when catkins are partially expanded. Make three additional applications during bloom and early nutlet stage at 7-10 day intervals. Additional applications may be necessary when frequent rainfall occurs. Dilute: Apply 2 pounds per 100 gallons water. Concentrate: Apply at equivalent rates in 50-100 gallons water per acre. One pint of summer oil emulsion may be added per 100 gallons of spray. Do not apply more than 6.3 pounds per acre per application
Watermelon	Anthracnose	2	1.05	5.25	7	Apply as soon as plants become established and at weekly intervals thereafter.
	Downy Mildew	1.5-2	1.05	5.25	7	Apply as soon as plants become established and at weekly intervals thereafter. Treat according to disease

<sup>\*</sup>Except where otherwise indicated..

## FOR CONTROL OF DISEASES ON ORNAMENTALS IN GREENHOUSES, FIELDS & NURSERIES

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labelling. Apply as a thorough coverage spray using 1 pound FUNGURAN <sup>(R)</sup>-OH per 100 gallons of water. Begin application at first sign of disease and repeat at 7-14 day intervals as needed, using shorter intervals during periods of frequent rains or when severe disease conditions persist.

One level tablespoon of FUNGURAN <sup>(R)</sup>-OH per gallon of water is equivalent to one pound per 100 gallons. FUNGURAN <sup>(R)</sup>-OH may be used as a maintenance spray. FUNGURAN <sup>(R)</sup>-OH may be used alone or in combination with other fungicides such as the dithiocarbamates.

CROP	DISEASES				
Aralia	Xanthomonas & Cercospora leafspots, Alternaria				
Azalea*	Cercospora leafspot, Botrytis blight, Phytophthora dieback & powdery mildew				
Begonia	Xanthomonas leafspot, Anthracnose				
Bulbs (Easter lily, tulip, gladiolus)	Botrytis blight				
Carnation*	Alternaria blight, Pseudomonas leafspot & Botrytis blight				
Chrysanthemum*	Septoria leafspot & Botrytis blight				
Cotoneaster	Botrytis blight				
Euonymus	Botrytis blight, Anthracnose				
lvy*	Xanthomonas leafspot				
Pachysandra	Volutella leaf blight				
Periwinkle	Phomopsis stem blight				
Pyracantha	Fireblight, scab				
Rose*	Powdery mildew, black spot				
Yucca (Adam's needle)	Cercospora & Septoria leafspots				

<sup>\*</sup> Discoloration of foliage and/or blooms has been noted on some varieties. To prevent residues on commercial plants, do not spray just before selling season.

CAUTION: Phytotoxicity may depend on varietal differences. If unfamiliar with the use of FUNGURAN (R)\_OH, apply the

CAUTION: Phytotoxicity may depend on varietal differences. If unfamiliar with the use of FUNGURAN <sup>(v)</sup>-OH, apply the recommended rate to a few plants and observe after 7-10 days for symptoms of phytotoxicity.



#### STORAGE AND DISPOSAL

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

Storage: Store product in a secure dry place. Keep product dry as product is water soluble. When opening, closing or handling open packages, or pouring product, wear goggles to prevent dusting into eyes. Spilled product should be swept up, used if clean, or disposed of according to the procedures below. Store product in original container. Store pesticide separately to prevent cross-contamination of other pesticides, fertilizers, food and feed.

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.

Container Disposal: (Paper Bag)

If empty: Nonrefillable container: Do not reuse or refill this container. 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.

If partly filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any indoor or outdoor drain.

#### WARRANTY STATEMENT

SPIESS-URANIA CHEMICALS warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of SPIESS-URANIA CHEMICALS. To the extent permitted by applicable law, SPIESS-URANIA CHEMICALS shall not be liable for consequential, special or indirect damages resulting from the use or handling of this product. To the extent permitted by applicable law, all such risks shall be assumed by the Buyer. To the extent permitted by applicable law exclusive remedy of any buyer or user of this product for any and all losses, injuries, or damages resulting from or in any way arising from the use, handling or application of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid for this product or at SPIESS-URANIA CHEMICALS's election, the replacement of this product. SPIESS-URANIA CHEMICALS MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

LRE 6-12-08 CLL 6/27/08 (use rates and revision) JLH 6/30/08 (secondary review)