

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

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Bill Washburn Regulatory Manager Arysta LifeScience North America LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513

JUL 17 2009

Subject: Label Notification(s) for Pesticide Registration Notices 2007-4 and 98-10

- 1. Update of company name
- 2. Added emergency telephone number(s)
- 3. Updated warranty statement

Dear Mr. Washburn:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notices (PRN) 2007-4 and 98-10 dated June 18, 2009 for:

EPA Registration 66330-24 Captan 4 Flowable EPA Registration 66330-29 Captan 80 WP EPA Registration 66330-26 Captan 50 WP

The Registration Division (RD) has conducted a review of this request for applicability under PR Notices 2007-4 and 98-10 and finds that the label changes requested falls within the scope of PR Notices 2007-4 and 98-10. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please contact me directly at 703-305-6249 or Nicole Williams of my staff at 703-308-5551.

Sincerely,

Linda Arrington

Notifications & Minor Formulations Team Leader Registration Division (7505P)

Office of Pesticide Programs

Please read instructions on reverse befo	re completing form.		F	orm Approved	I, OMB No. 2070-	0060, Approval expires 05-31-98	
O EDA		☐ Registration			OPP Identifier Number		
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	Washington, DC 2				<u> </u>		
	Applicat	tion for Pes	sticide	- Section	1 1		
Company/Product Number		2. EPA P		lanager		Proposed Classification	
66330-29		TONY I	KISH				
4. Company/Product (Name)		PM#				None Restricted	
CAPTAN 80 WP  5. Name and Address of Applicant (III	oclude 7IP Code)	22	-dikad F	Davieur In		ith FIEDA Continu 2/5/2)	
3. Name and Address of Applicant (//	iciade zir Code)					rith FIFRA Section 3(c)(3)	
Arysta LifeScience North Am	erica. LLC	to:	(b)(I), my product is similar or identical in composition and labeling				
15401 Weston Parkway, Suit		EPA Re	ea. No.		<b>NOTIFICA</b>	mon	
Cary, NC 27513			- 3		1111 1 17 1	2000	
		Product	t Name		JUL 17	2009	
Check if this is a new ac	ldress						
		Sectio	on - II				
Amendment – Explain below.			Fir	nal printed lab	els in response to	Agency letter dated	
Resubmission in response to A	gency letter dated	_		e Too" Applica		· — — —	
Notification - Explain below.			Oti	her - Explain t	pelow		
Explanation: Use additional	page(s) if necessary	. (For Section	on I and	Section II.)			
Notification of label change	per PR Notice 2007	<b>7-4.</b> This notific	cation is c	onsistent with	guidance in PR I	Notice 2007-4 and the	
requirements of EPA's regulations a							
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this product may be in violation of Fi	FRA and I may be subjec	t to enforcemen	it action a	nd penalties ι	ınder sections 12	and 14 of FIFRA.	
Notification of label change							
regulations at 40 CFR 152.46, and r understand that it is a violation of 18							
consistent with the terms of PR Noti							
penalties under sections 12 and 14		•					
		Section	n - III				
Material This Product Will Be Page	ckaged In:						
Child-Resistant Packaging	Unit Packaging		Water	Soluble Pack	aging	2. Type of Container	
Yes*	Yes		=	'es		Metal	
⊠ No	⊠ No			lo			
	If "Yes"	No. per	If "Yes		No. per	Glass	
*Certification must	Unit Packaging wgt.	container	Раска	ige wgt.	container	<b>⊠</b> Paper	
be submitted						Other (Specify)	
Location of Net Contents Information	tion 4. Size(s	) Retail Contain	er		_	f Label Directions	
Label Cont	ainer	4 H- O H- # H-			On Label		
		1 lb., 2 lb., 5 lb.	., and 10		On labeli	ng accompanying product	
6. Manner in Which Label is Affixed to Product							
☑ Paper glued ☐ Stenciled							
		Section	n - IV			·····	
Contact Point (Complete items die	rootly holow for identificati			tacted if need	accord to process	this application)	
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Bill Washburn	'	Regulatory	v Mana	aer		Code)	
			,	•	j	901-432-5118	
	Certifica	tion		,		6. Date Application	
I certify that the statements I have n	nade on this form and all a	attachments the				Received	
acknowledge that any knowingly fals under applicable law.	se or misleading statemer	nt may be punish	nable by f	ine or impriso	nment or both	(Stamped)	
2. Signature		3. Title				<del></del>	
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4. Typed Name		5. Date					
Bill Washburn	06/18/09						



June 18, 2009



Mr. Tony Kish
Product Management Team 22
Fungicide-Herbicide Branch (H7505C)
Registration Division
Office of Pesticide Programs
Document Processing Desk (NOTIF)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

Subject:

**CAPTAN 80 WP** 

EPA Reg. No. 66330-29

Notification of Label Change per PR Notice 2007-4 and PR Notice 98-10

Dear Mr. Kish:

Please find the following enclosed:

- Application for Pesticide Registration (Other) dated 06/18/09.
- One highlighted copy of subject label, showing all changes.
- One clean copy of the subject label.

Notification of label change per PR Notice 2007-4. This notification is consistent with guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140. 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 USC Sec 1001 to willfully make any false statement to EPA. I further understand that if the amendment is not consistent with the requirements of 40 CFR §§ 156.10, 156.140. 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Also in this submission, we are using PR Notice 98-10 to update the name of the company, emergency telephone numbers and warranty. Arysta LifeScience North America Corporation was changed to Arysta LifeScience North America, LLC.

Should you have any questions or comments, please do not hesitate to contact me at 901-432-5118 or by e-mail at <a href="mailto:bill.washburn@arystalifescience.com">bill.washburn@arystalifescience.com</a>

Sincerely,

Bill Washlum

Bill Washburn Regulatory Manager

Arysta LifeScience North America, LLC 15401 Weston Parkway, Suite 150, Cary, NC 27513 Phone 919-678-4900 Fax 919-678-2194 www.arystalifescience.com

JUL 17 2009

# **CAPTAN 80 WP in Water Soluble Packs**

MASTER LABEL FOR CAPTAN 80 WP in Water Soluble Packs

Note: This master label will be the basis of the following package labels:

- CAPTAN 80 WDG: CAPTAN PRO 80 WDG
- CAPTAN 80 WP in Water Soluble Packs

GROUP M FUNGICIDE

# A Fungicide for Plant Disease Control

# **ACTIVE INGREDIENTS:**

Captan*	77.8 %
Related Derivatives	
OTHER INGREDIENTS:	20.4 %
TOTAL	100.0 %

<sup>\*</sup>N-Trichloromethylthio-4-cyclohexene-1,2-dicarboximide.

# DANGER PELIGRO

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 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 treatment advice.</li> </ul>			
IF INHALED	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment.</li> </ul>			
IF SWALLOWED	<ul> <li>Call a poison control center or doctor for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>			

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

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

**EMERGENCY TELEPHONE NUMBERS:** 

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL: 1-866-632-8946

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident

call CHEMTREC 1-800-424-9300

Arysta LifeScience North America, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513

EPA Reg. No. 66330-29

EPA Est. No.

**Net Contents:** 

25 lbs

1 lb (10 - 1 lb water soluble pouches per one outside package).

# CAPTAN 80 WDG (in 25 lb bag Sub-Label) Alternate Brand Name: CAPTAN PRO 80 WDG

# **CAPTAN 80 WDG**

GROUP M FUNGICIDE

# A Fungicide for Plant Disease Control

ACTIVE INGREDIENTS:		
Captan*	77.8	%
Related Derivatives	1.8	%
OTHER INGREDIENTS	20.4	%
TOTAL	100.0	%

<sup>\*</sup>N-Trichloromethylthio-4-cyclohexene-1,2-dicarboximide.

CAPTAN 80 WDG is a water dispersible granule for use in water as a spray for the control of certain fungal diseases of fruit and ornamental crops, and as a soil treatment for the control of certain seed rots and damping-off diseases.

**EPA Reg. No. 66330-29** 

EPA Est. No.

Net Contents: 25 lbs

# 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 inside booklet for additional Precautionary Statements CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE

If a known exposure occurs or is suspected, immediately start the procedures given below and contact a POISON CONTROL CENTER, PHYSICIAN, OR THE NEAREST HOSPITAL. Describe the type and extent of exposure, the victim's symptoms and follow the advice given.

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> </ul>			
	Call a poison control center or doctor for treatment advice.			
IF ON SKIN OR	Take off contaminated clothing.			
CLOTHING	Rinse skin immediately with plenty of water for 15-20 minutes.			
	Call a poison control center or doctor for treatment advice.			
IF INHALED	Move person to fresh air.			
	If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.			
	Call a poison control center or doctor for further treatment.			
IF SWALLOWED	Call a poison control center or doctor for treatment advice.			
	Have person sip a glass of water if able to swallow.			
	Do not induce vomiting unless told to do so by the poison control center or doctor.			

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

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

# **EMERGENCY TELEPHONE NUMBERS:**

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL: 1-866-303-6952

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call

CHEMTREC 1-800-424-9300

#### Made in U.S.A.

# ARYSTA LIFESCIENCE NORTH AMERICA, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

#### **DANGER**

Corrosive. Causes irreversible eye damage. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Wear long-sleeved shirt and long pants; socks and shoes, protective eyewear (goggles, face shield or safety glasses), and chemical resistant gloves (such as or made out of any waterproof material, selection category A). Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

All mixers, loaders, applicators, flaggers and other handlers (including handlers participating in seeding and transplanting as part of root-dip or greenhouse-soil treatments) must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves except flaggers, pilots and applicators driving motorized equipment,
- Chemical-resistant apron when mixing/loading participating in dip treatments, cleaning up spills, cleaning equipment or otherwise exposed to concentrate.
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, 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.
- 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. Wash the
  outside of gloves before removing. As soon as possible, wash thoroughly
  and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic organisms. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

This product may contaminate water through drift of spray in wind. 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. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

#### **DIRECTIONS FOR USE**

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

Read all precautions and directions for use before using. Use only for claims listed and only as specified on this label.

Do not apply this product with chemigation equipment. 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.

#### AGRICULTURAL USE REQUIREMENTS

Use this product 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 protection equipment (PPE), notification to workers, 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). The REI for each crop is listed in the directions for use associated with each crop.

#### **EARLY ENTRY PPE**

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 water-proof material,
- -Shoes plus socks
- -Protective eyewear

#### **EYE-PROTECTION**

To mitigate eye irritation concerns from post-application exposures, the Agency is requiring that for at least seven days following the application of captan; 1. at least one container designed specifically for flushing eyes must be available in operating condition at the WPS-required decontamination site for workers entering the area treated with captan, and

- 2. workers must be 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 eyeflush container that is located at the decontamination site, and
- -- on how to operate the eyeflush container.

# **DOUBLE NOTIFICATION**

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

#### 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.

# **Entry Restrictions for Postharvest Fruit Dip**

Do not contact or allow others to contact the treated fruit until sprays have dried.

#### **Entry Restrictions for All Other Non-WPS Uses**

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

In order that pesticide residues on food and forage crops will not exceed federal tolerances, use only at recommended rates and intervals, and do not apply closer to harvest than specified. Do not apply or allow to drift to adjoining food, fiber or pasture crops. Drift of Captan onto sensitive crops (e.g. D'Anjou Pears) can cause severe phytotoxicity and crop loss.

Consult State Agricultural Experiment stations or State Agricultural Extension Service for additional information, as the time of applications needed will vary with the local conditions. Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

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.

Apply only when the wind speed is 2-10 mph at the application site.

#### FOR AERIAL APPLICATIONS:

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release the 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.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Do not make applications into temperature inversions.

#### FOR GROUND BOOM APPLICATION

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

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

#### **AERIAL DRIFT REDUCTION ADVISORY**

This section is advisory in nature and does not supersede the mandatory label requirements.

#### **INFORMATION ON DROPLET SIZE**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

#### CONTROLLING DROPLET SIZE

Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

#### **BOOM LENGTH**

For some use patterns, reducing the effective boom length to  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

#### **APPLICATION HEIGHT**

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### **SWATH ADJUSTMENT**

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

#### WIND

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### **TEMPERATURE AND HUMIDITY**

When making application in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for

threatened or endangered species, non-target crops) is minimal (e.g. when the wind is blowing away from the sensitive areas).

Do not apply this product to seeds or seed pieces.

#### **COMPATIBILITY AND PLANT SAFETY**

CAPTAN 80 WDG can be combined safely and effectively at recommended dosage rates with most commonly used fungicides and insecticides, with the exception of oil and strongly alkaline materials. Alkaline materials such as spray lime, lime-sulfur and Bordeaux mixture will reduce the fungicidal activity of CAPTAN 80 WDG. Do not apply CAPTAN 80 WDG in combination with or immediately before or closely following oil sprays. Do not allow oil sprays on adjacent crops to drift onto crops which have been or will shortly be treated with Captan. The time factor governing the safe interval between Captan and oil sprays varies due to general climatic conditions, therefore, consult local agricultural spray programs and authorities to determine the proper timing. The use of spreaders which cause excessive wetting is not advised. Combinations with solvent formulation of organic phosphates should not be used. Combinations of Captan and sulfur should not be used on crops sensitive to sulfur. Used at high rates or in drenching sprays, Captan may cause a necrotic spotting of tender, immature leaves of certain varieties of apples, peaches, plums and cherries. This type of injury is most likely to occur in the early cover sprays during long periods of warm, cloudy, humid weather. To avoid the hazard of leaf spotting under such conditions, use Captan and other spray materials at lowest recommended rates and avoid drenching trees.

Applications can be made by aircraft or ground equipment (including concentrate and semi-concentrate equipment). Pour recommended amount of this material into nearly filled spray tank. Add balance of water. Maintain agitation during filling and spraying operations. Do not allow mixture to stand. Do not combine with emulsifiable liquids or wettable powders unless previous experience has proven them to be physically compatible and safe to plants. (Read compatibility and plant safety information).

For aerial or concentrate spray applications, apply the same amount of CAPTAN 80 WDG per acre as would normally be applied for dilute spray applications. Apply aerial or concentrate sprays in sufficient water for coverage.

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

#### RESISTANCE MANAGEMENT

CAPTAN 80 WDG contains a Group M<sup>1</sup> fungicide. Fungal isolates with acquired resistance to Group M<sup>1</sup> may eventually dominate the fungal population if Group M<sup>1</sup> fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by CAPTAN 80 WDG or other Group M<sup>1</sup>.

To delay fungicide resistance consider:

- Avoiding the consecutive use of CAPTAN 80 WDG or other target site of action Group M<sup>1</sup> fungicides that have a similar target site of action, on the same pathogens.
- Using tank-mixtures or premixes with fungicide from different target site of action Groups as long as the involved products are all registered for the same use and are both effective at the tank mix or prepack rate on the pathogen(s) of concern.
- Basing fungicide use on a comprehensive IPM program.
- Monitoring treated fungal populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for fungicide resistance management and/or IPM recommendations for specific crops and resistant pathogens.
- For further information or to report suspected resistance, you may contact ARYSTA LIFESCIENCE NORTH AMERICA, LLC at toll free number 1-866-761-9397.

<sup>1</sup>The Multi-site activity grouping, designated by symbol "M", comprises a collection of various chemicals that act as general toxophores with several sites of action. These sites may differ between group members.

#### **GENERAL USE PRECAUTIONS**

Except as specified, begin applications before or at first sign of disease and repeat as needed to maintain control, but observe use limitations. Unless otherwise specified, application can be made on the day of harvest. Maximum application is for a crop cycle. Crop cycle is defined as prebloom through postharvest. Apply the high rate and/or spray at shorter intervals when climatic conditions most favor disease(s). If you are unaware of the climatic conditions favorable for disease(s) claimed for the specific use sites, you must consult with your State Agricultural Extension Service to learn of these conditions.

#### **IMPORTANT**

Read label carefully. Although most of the directions on this label may be followed nationwide, a few are limited to either the eastern or western U.S. Follow those directions for your growing area where specified.

#### FRUIT AND NUT CROPS

#### ALMONDS

Brown rot twig and blossom blight, shothole, scab, leaf blight, anthracnose (for control of anthracnose, use in a disease and resistance management program of rotational sprays with other approved materials) - Apply 2.5 to 5.6 pounds CAPTAN 80 WDG per acre in 20 to 300 gallons of water using ground equipment or in 5 to 20 gallons of water by air. Use 3.75 to 5.6 pounds per acre when Captan is used alone. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, CAPTAN 80 WDG may be used in a tank mix at a rate of 2.5 to 3.75 pounds per acre. Apply at popcorn, bloom and petal fall stages and in cover sprays and pre-harvest sprays.

The maximum application rate is 5.6 lbs of CAPTAN 80 WDG per acre (4.5 lb ai/acre), with a maximum seasonal application rate of 25 lbs of CAPTAN 80

WDG per acre per crop cycle (20 lb ai/acre per crop cycle). Preharvest interval (PHI) = 30 days. Note the restricted entry interval (REI) is 24 hours. Almond hulls may be fed to livestock.

# **APPLES (Eastern U.S.)**

Primary scab, black rot (frogeye), *Botrytis* blossom-end-rot – Apply 5 pounds of CAPTAN 80 WDG per acre in 20-400 gallons of water using ground equipment or in 5 to 20 gallons of water by air. Apply at 5 to 7 day intervals as needed to maintain control in prebloom, bloom, petal fall, and first cover sprays.

Secondary scab, Brooks fruit spot, sooty blotch, fly speck, black rot, black pox, botryosphaeria rot, bitter rot – Apply 2.5 to 5 pounds of CAPTAN 80 WDG per acre in 20 to 400 gallons of water using ground equipment or in 5 to 20 gallons of water by air. Apply at 10 to 14 day intervals in second and later cover sprays.

The maximum application rate is 5 lbs of CAPTAN 80 WDG per acre (4 lb ai/acre), with a maximum seasonal application rate of 40 lbs of CAPTAN 80 WDG per acre per crop cycle (32 lb ai/acre per crop cycle). Pre-harvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

Powdery mildew – If powdery mildew is a problem, add 6 to 12 pounds of sulfur per acre to all post bloom sprays until foliage matures. Do not use CAPTAN 80 WDG in combination with or closely following or in alternation with wettable sulfur products on sulfur sensitive varieties of apples such as Red Delicious, Staymen, Baldwin, King, etc., as severe injury and defoliation may occur.

#### APPLES (Western U.S.)

Primary scab – Apply 2.5 to 5 pounds CAPTAN 80 WDG per acre in 20 to 400 gallons of water per acre using ground equipment or in 5 to 20 gallons of water by air. To reduce the potential for disease resistance development to other fungicides, having a similar spectrum, the lower rate may be used in tank mixtures.

(Pacific Northwest): Bull's eye rot, *Botrytis* rot – Apply 3.75 pounds CAPTAN 80 WDG per acre in 20 to 400 gallons of water using ground equipment or in 5 to 20 gallons of water by air. Make 1 or 2 applications with late cover sprays and 1 final spray prior to harvest. Secondary scab – In mid-summer cover sprays, the dosage may be reduced to 2.5 pounds per acre.

The maximum application rate is 5 lbs of CAPTAN 80 WDG per acre (4 lb ai/acre), with a maximum seasonal application rate of 40 lbs of CAPTAN 80 WDG per acre per crop cycle (32 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

#### **APRICOTS**

Brown rot (twig blight), jacket rot – Apply 1.9 to 3 pounds CAPTAN 80 WDG per acre in 20 to 250 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in red bud, bloom, 75% petal fall, and cover sprays. To

reduce potential for disease resistance development to other fungicides having a similar spectrum, use the lower rate in tank mixtures.

The maximum application rate is 3 lbs of CAPTAN 80 WDG per acre (2.5 lb ai/acre), with a maximum seasonal application rate of 15.6 lbs of CAPTAN 80 WDG per acre per crop cycle (12.5 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# **BLUEBERRIES (Eastern U.S.)**

Botrytis gray mold or berry rot, mummy berry – Apply 3 pounds CAPTAN 80 WDG per acre in sufficient water for thorough coverage or a minimum of 5 gallons of water by air. Start spray program when buds swell or when buds have loose scales. Repeat at 7 day intervals through blossom period. Repeat at 7 to 10 day intervals from late bloom.

The maximum application rate is 3 lbs of CAPTAN 80 WDG per acre (2.5 lb ai/acre), with a maximum seasonal application rate of 43.75 lbs of CAPTAN 80 WDG per acre per crop cycle (35 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 48 hours.

# **BLUEBERRIES (Western U.S.)**

Botrytis gray mold or berry rot, mummy berry – Apply 1.25 to 3 pounds CAPTAN 80 WDG per acre in 20 to 200 gallons of water by ground or in 5 to 20 gallons of water by air. Begin at mid-bloom, repeat at 7 to 10 day intervals until maturity.

The maximum application rate is 3 lbs of CAPTAN 80 WDG per acre (2.5 lb ai/acre), with a maximum seasonal application rate of 43.75 lbs of CAPTAN 80 WDG per acre per crop cycle (35 lb ai/acre per crop cycle). Pre-harvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 48 hours.

# CHERRIES (Eastern U.S.)

Brown rot, leaf spot, *Botrytis* rot – Apply 2.5 pounds CAPTAN 80 WDG per acre in 20 to 200 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in prebloom, bloom, petal fall, shuck, cover and preharvest sprays. Applications at 3 to 4 day intervals may be necessary during bloom to control blossom blight. Repeat applications at 7 to 10 day intervals as needed to maintain control up to start of harvest. If powdery mildew is a problem, add 6 lbs. sulfur per acre to the petal fall, shuck, or early cover sprays. If sulfur is added, CAPTAN 80 WDG may be reduced to 1.25 pounds per acre in these sprays. Postharvest sprays: Leaf spot – Apply 2.5 pounds CAPTAN 80 WDG per acre in 20 to 200 gallons of water using ground equipment. Apply immediately after harvest and repeat application in 10 to 14 days.

The maximum application rate is 2.5 lbs of Captan 80 WP per acre (2 lb ai/acre), with a maximum seasonal application rate of 17.5 lbs of CAPTAN 80 WDG per acre per crop cycle (14 lb ai/acre). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# **CHERRIES (Western U.S.)**

Brown rot, blossom blight, brown rot (fruit), leaf spot – Apply 1.875 to 2.5 pounds CAPTAN 80 WDG per acre in 20 to 200 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in prebloom, bloom, petal fall, shuck cover, and preharvest sprays.

The maximum application rate is 2.5 lbs of CAPTAN 80 WDG per acre (2 lb ai/acre), with a maximum seasonal application rate of 17.5 lbs of CAPTAN 80 WDG per acre per crop cycle (14 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# **GRAPES (U.S., except CA)**

Phomopsis cane and leaf spot, downy mildew, suppression of black rot – Apply 1.25 to 2.5 pounds CAPTAN 80 WDG per acre in 20 to 200 gallons water using ground equipment or in 7 to 20 gallons water by air; when shoots are ½ to 1½ inches long, when shoots are 3-5 inches long, and when shoots are 9-12 inches long. Repeat just before bloom, immediately after bloom, and continue at 10 to 14 day intervals as long as disease conditions persist. Use the lower rate when spraying less susceptible grape varieties or when conditions are less favorable for disease development. Use the higher rate on susceptible grape varieties and during periods of weather highly favorable for disease development.

Bunch rot (*Botrytis*) – Apply 2.5 pounds CAPTAN 80 WDG per acre in 20 to 200 gallons of water using ground equipment or in 7 to 20 gallons of water by air. Make 2 applications before bloom and 1 immediately after bloom. Repeat periodically, making 3 cover applications before bunches close.

The maximum application rate is 2.5 lbs of CAPTAN 80 WDG per acre (2 lb ai/acre), with a maximum seasonal application rate of 15 lbs of CAPTAN 80 WDG per acre per crop cycle (12 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 48 hours.

#### **GRAPES** (California)

Bunch rot (*Botrytis*) – Apply 2.5 pounds CAPTAN 80 WDG per acres in 20 to 200 gallons of water using ground equipment or in 7 to 20 gallons of water by air. Make 2 applications before bloom and 1 immediately after bloom. Repeat periodically, making 3 cover applications before the bunches close.

Phomopsis cane and leaf spot (current season infection) - Apply 2 to 2.5 pounds CAPTAN 80 WDG per acre in 20 to 200 gallons of water using ground equipment or apply 2.5 pounds CAPTAN 80 WDG per acre in 7 to 20 gallons of water by air. Apply first spray when green tissue begins to show but before shoots are 1 inch long and repeat application when shoots are 6 to 8 inches long.

The maximum application rate is 2.5 lbs of CAPTAN 80 WDG per acre (2 lbs ai/acre), with a maximum seasonal application rate of 15 lbs of CAPTAN 80 WDG per acre per crop cycle (12 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 48 hours.

# **NECTARINES (U.S.)**

Brown rot, scab – Apply 2.5 to 5 pounds CAPTAN 80 WDG per acre in 20 to 250 gallons of water using ground equipment or in 10 to 20 gallons of water by air. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, the lower rate may be used in tank mixtures. Apply in full pink, bloom, petal fall, shuck, cover and preharvest sprays. Applications at 3 to 4 day intervals may be necessary during bloom to control blossom blight. Repeat application at 7 to 14 day intervals as needed to maintain control. Continue applications throughout harvest if conditions favor brown rot. If powdery mildew is a problem, add 7.5 pounds sulfur per acre to the petal fall, shuck and early cover spray. If sulfur is added, CAPTAN 80 WDG may be reduced to 1.6 pounds per acre in these sprays.

Shothole (peach blight, coryneum blight) – Apply 2.5 to 5 pounds CAPTAN 80 WDG per acre in 20 to 250 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in pink bud, full bloom, petal fall and cover sprays as necessary and as a post harvest spray (but before leaves drop).

The maximum application rate is 5 pounds of CAPTAN 80 WDG per acre (4 lb ai/acre), with a maximum seasonal application rate of 30 lbs of CAPTAN 80 WDG per acre per crop cycle (24 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# PEACHES (U.S.)

Brown rot, scab – Apply 2.5 to 5 pounds CAPTAN 80 WDG per acre in 20 to 400 gallons of water using ground equipment or in 10 to 20 gallons of water by air. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, the lower rate may be used in tank mixtures. Apply in full pink, bloom, petal fall, shuck stages and in cover and preharvest sprays. When conditions are favorable, make applications at 3 to 4 day intervals during bloom to control blossom blight. Then repeat application at 7 to 14 day intervals as needed to maintain control. Continue applications through harvest if conditions favor brown rot. If powdery mildew is a problem, add 12 pounds sulfur per acre to the petal fall, shuck and early cover spray. If sulfur is added, CAPTAN 80 WDG may be reduced to 2.5 pounds per acre in these sprays.

Shothole (peach blight, coryneum blight) – Apply 5 pounds CAPTAN 80 WDG per acre in 20 to 400 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in pink bud, full bloom, petal fall stages and cover sprays as necessary and as a postharvest spray (but before leaves drop).

The maximum application rate is 5 lbs of CAPTAN 80 WDG per acre (4 lb ai/acre), with a maximum seasonal application rate of 40 lbs of CAPTAN 80 WDG per acre per crop cycle (32 lb ai/acre). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# PLUMS, FRESH PRUNES (Eastern U.S.)

Brown rot – Apply 3.75 pounds CAPTAN 80 WDG per acre in 20 to 300 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Apply in

full pink, bloom and petal fall sprays. Repeat applications at 7 to 14 day intervals as needed to maintain control. Continue applications through harvest if conditions favor brown rot. The addition of a neutral spreader has improved coverage.

The maximum application rate is 3.75 lbs of CAPTAN 80 WDG per acre (3 lb ai/acre), with a maximum seasonal application rate of 33.75 pounds of CAPTAN 80 WDG per acre per crop cycle (27 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# PLUMS, FRESH PRUNES (Western U.S.)

Brown rot – Apply 2.5 to 3.75 pounds CAPTAN 80 WDG per acre in 20 to 300 gallons of water using ground equipment or in 10 to 20 gallons of water by air. Use the lower rates when tank mixes with fungicides of similar spectrum activity are used. Apply at green bud, popcorn, bloom, and petal fall stages. Repeat in cover sprays as conditions warrant.

Prune russet scab (lacy scab) – Apply 2.5 to 3.75 pounds CAPTAN 80 WDG per acre in 20 to 300 gallons of water using ground equipment. Apply at full bloom.

The maximum application rate is 3.75 lbs of CAPTAN 80 WDG per acre (3 lb ai/acre), with a maximum seasonal rate of 33.75 lbs of CAPTAN 80 WDG per acre per crop cycle (27 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

#### RASPBERRIES, BLACKBERRIES AND DEWBERRIES

For the control of Anthracnose, *Botrytis*, and Spur Blight – Apply 2.5 pounds of CAPTAN 80 WDG per acre when blossoms are in bud (young canes are 8-10" long). Make second application two weeks later. Apply a fall spray after old canes are removed.

For the control of Fruit rot – Apply 2.5 pounds of CAPTAN 80 WDG per acre at early bloom (5 to 10% bloom) and again at full bloom. Additional applications can be made at 10-14 day intervals as needed. Do not apply within 3 days of harvest (PHI = 3 days).

Apply CAPTAN 80 WDG as indicated above in 45-100 gallons of water per acre using ground equipment or in 10 to 20 gallons of water by air. Use the higher volume as foliage increases.

Do not apply more than 12 pounds of CAPTAN 80 WDG per acre per crop cycle (10lbs ai/acre per crop cycle). Note the restricted entry interval (REI) is 48 hours.

# **STRAWBERRIES (U.S.)**

Botrytis (gray mold), leaf spot – Apply by broadcast spray at 1.875 to 3.75 pounds CAPTAN 80 WDG per acre in sufficient water for thorough coverage by ground equipment or in 10 to 20 gallons of water by air. Begin applications when new growth starts in the spring and before fruit starts to form. Repeat at 7 to 14

day intervals. Under conditions favorable to fruit rot, continue applications through harvest period, treating immediately after each picking.

Anthracnose Fruit Rot (*Colletotrichum acutatum*) – Apply 3.75 pounds CAPTAN 80 WDG per acre (3.0 lbs ai/acre) in sufficient water for thorough coverage by ground equipment. Begin applications at flower bud emergence. Apply at 7 day intervals through harvest.

The maximum application rate is 3.75 pounds of CAPTAN 80 WDG per acre (3 lb ai/acre), with a maximum seasonal application rate of 30 lbs of Captan 80 WDG per acre per crop cycle (24 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

If applying as directed/banded spray: use band rate of CAPTAN 80 WDG according to the following formula:

Plant Bed Width (inches) X Broadcast rate per acre = Banded rate of CAPTAN 80 WDG per acre

Row Spacing (inches)

#### **SPECIAL USES**

# PEACH PREPLANT ROOT DIP (California)

Preventative pre-plant dip treatment for crown gall. Use 2.5 pounds CAPTAN 80 WDG plus 3.2 pints diluted sodium hypochlorite (5.25% household bleach) per 100 gallons of water. Wash nursery trees to remove soil from roots. Cut off all dormant buds and suckers in crown area and prune root system if necessary. Submerge the entire dormant tree for 5 minutes. Recharge dip during operation at a rate of 3.2 pints diluted sodium hypochlorite and 2.5 pounds CAPTAN 80 WDG per 100 gallons of water. Do not contact or allow others to contact the treated fruit until the sprayers have dried.

#### POSTHARVEST FRUIT APPLICATION

For control of various molds and storage rots (*Botrytis*, Gleosporium, Rhizopus). Use as postharvest dip or spray wash on the following fruits: Apples, Cherries, Pears – Use 1.6 pounds CAPTAN 80 WDG per each 100 gallons of water added. Apply as a drench or in a dip tank. Recharge wash solution periodically when tank volume is reduced by 25%. Bring water back to volume and add 1.6 pounds CAPTAN 80 WDG for each 100 gallons added. At end of every 8-hour shift, empty tank, flush and charge with fresh dilution. Do not allow dip tank solution to stand overnight. Maintain continuous agitation during dipping operation. For use in mechanical fruit-dip operations only. Hand dipping of fruit is prohibited. Do not contact or allow others to contact the treated fruit until it is dry.

#### DISPOSAL OF LEFTOVER POSTHARVEST TREATMENT MIXTURE

Leftover dip or spray mixtures containing Captan may be used as a foliar spray for the same crop in case of apples and cherries (but not pears) as treated by the dip or spray mixture, or to registered turf and ornamental sites; observing all restrictions such as maximum pounds applied per application and season.

When calculating application rates, if analytical services are not available to determine the exact quantity of Captan remaining in the mixture, assume that the tank still contains 1.6 pounds of CAPTAN 80 WDG per 100 gallons of water. If the dip or spray mixture contains other pesticides in addition to Captan, refer to the product label(s) for information regarding disposal.

Captan wastes are acutely hazardous to the eyes. Improper disposal of spray or dip tank mixtures is a violation of Federal Law. If the leftover dip or spray mixture cannot be disposed of in the manner prescribed above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance concerning the disposal of spent or excess dip tank mixtures.

#### NON-FOOD/ORNAMENTALS

#### **USE PRECAUTIONS**

Do not apply spray to ornamental plants listed below beyond the point of drip from the leaf surface. When applying as a drench, apply only sufficient mixture to wet the surface of the soil except when the dose is specified in terms of volume of mixture per square foot of area.

#### POST-APPLICATION/ENTRY RESTRICTIONS:

For applications to ornamentals at non-commercial sites and golf-course turfgrass, do not enter or allow others to enter until sprays have dried. The restricted entry interval (REI) for ornamentals grown for commercial or research use is 48 hours.

#### **AZALEAS**

Damping-off of cuttings – Use 2.3 pounds CAPTAN 80 WDG per 100 gallons of water. Dip cuttings before bedding.

Petal blight – Use 1.5 pounds CAPTAN 80 WDG per 100 gallons of water. Apply to soil area around plants and spray flowers just before bloom. Repeat at 7 to 14 day intervals through bloom.

#### **BEGONIAS** (Tuberous)

Damping-off, tuber rot – Use 2.5 pounds CAPTAN 80 WDG per 100 gallons of water. Dip tubers 30 minutes, drain and plant.

#### **CAMELLIAS**

Petal blight – Use 0.625 pound CAPTAN 80 WDG per 100 gallons of water. Apply to drench soil around plants beginning when flowers start to open. Repeat at 7 to 10 day intervals through bloom.

#### **CARNATIONS**

Alternaria leaf spot, rust – Use 1.5 pounds CAPTAN 80 WDG per 100 gallons of water. Begin application at first sign of disease. Repeat at 7 to 10 day intervals. Shorten intervals during frequent rains and heavy dews.

Damping-off of cuttings – Use 2.3 pounds CAPTAN 80 WDG per 100 gallons of water. Dip cuttings before bedding.

#### **CHRYSANTHEMUM**

Botrytis flower blight, Septoria leaf spot – Use 1.5 pounds CAPTAN 80 WDG per 100 gallons of water. Apply at first sign of disease. Repeat at 7 to 10 day intervals. Damping-off of cuttings – Use 2.3 lbs. CAPTAN 80 WDG per 100 gallons of water. Dip cuttings before bedding.

#### **GINSENG**

For control of Cylindrocarpon root rot (*Cylindrocarpon destructans*), Grey mold (*Botrytis cinerea*), Phytophthora root rot (*Phytophthora cactorum*), Pythium root rot (*Pythium* spp.) and Rhizoctonia root and crown rot (*Rhizoctonia solani*).

Apply 2.5 lbs of CAPTAN 80 WDG per acre (2 lbs ai/acre) every 7 – 10 days or when conditions favor disease development. For control of grey mold, apply as a foliar spray with a minimum of 100 gal/acre. For control of root and crown diseases, apply as a drench with minimum of 200 gal/acre. Do not use ginseng for food or feed purpose within 1 (one) year of treatment. Do not exceed 8 applications in one growing season.

Do not apply more than 20 lbs of CAPTAN 80 WDG (16 lb ai) per acre per season. Note the restricted entry interval (REI) is 48 hours.

# **GLADIOLUS (Corms)**

Corm rot and decay, Damping-off – Use 0.25 pound CAPTAN 80 WDG per 10 gallons of water, dip corms 20 to 30 minutes. Drain and plant.

# TURF (golf course)

Leaf spot, damping-off, brown patch, melting out, seedling blights, and brown spot on St. Augustine grass – Use 1.25 pounds CAPTAN 80 WDG per 100 gallons of water. Apply 10 gallons spray per 1,000 square feet. Begin when growth starts in spring. Repeat at 7 to 14 day intervals throughout season. Do not graze treated areas or feed clippings to livestock. The maximum application rate for turf (golf course) is 5.4 lbs. of CAPTAN 80 WDG per acre (4.3 lb ai/acre) with a maximum seasonal application rate of 10.75 lbs of CAPTAN 80 WDG per acre (8.6 lb ai/acre).

Do not enter or allow others to enter until sprays have dried. Do not apply to turfgrass in residential sites, including homes, apartment buildings, daycare centers, schools, playgrounds, parks, recreational areas, sports fields or other residential areas.

# TURF (sod farms)

Damping-off and other soil borne diseases – Use 0.125 pound CAPTAN 80 WDG per 1000 square feet or 1.25 pounds CAPTAN 80 WDG per 100 gallons of water, using 10 gallons spray per 1,000 square feet. Cultivate into upper 3 to 4 inches before planting. The maximum application rate for turf (sod farms) is 5.4 lbs of CAPTAN 80 WDG per acre (4.3 lb ai/acre), with a maximum seasonal application rate of 10.75 lbs of CAPTAN 80 WDG per acre per season (8.6 lb ai/acre per season). Note the restricted entry interval (REI) is 48 hours. Do not harvest sod until 48 hours after application.

#### **ROSES**

Black spot, *Botrytis* blossom blight – Use 1.5 pounds CAPTAN 80 WDG per 100 gallons of water. Begin at first growth or first sign of disease. Repeat at 7 to 14 day intervals, and more frequently during frequent rains and heavy dews.

#### SOIL AND GREENHOUSE BENCH TREATMENT

Pre-plant treatment for damping-off, root rot disease on seedlings or transplants of roses (and other shrubs, trees, flowers) and lawn seedbeds — Use 1.25 pounds CAPTAN 80 WDG per 100 gallons of water at a rate of 15 gallons of spray per 1,000 square feet. Cultivate into upper 3 to 4 inches of soil before planting.

Only the applicator is permitted to be in the greenhouse during application of Captan. Open vents to greenhouse during application and for at least 1 hour after application.

Note the restricted entry interval (REI) is 48 hours. Once the treatment and any seeding or transplanting tasks done as part of the treatment are complete, the 48-hour REI begins. Exception, once the seeds or transplants are planted in the soil, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no contact with the soil subsurface.

#### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited. Do not reuse empty container.

**PESTICIDE STORAGE:** Keep pesticide in original container. Keep container tightly closed when not in use. Protect from excessive heat. Store in a cool, dry place.

**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 instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available, or 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.

# **Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA DISCLAIMS ALL OTHER WARRANTIES. **EXPRESS** OR IMPLIED. INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE EXTENT CONSISTENT TO APPLICABLE LAW, ARYSTA, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. AGENT, REPRESENTATIVE OR EMPLOYEE OF ARYSTA IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF ARYSTA, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT ARYSTA'S ELECTION. THE REPLACEMENT OF THE PRODUCT.

# CAPTAN 80 WP WATER SOLUBLE PACKS (in 1 lb size Sub-Label)

# CAPTAN 80 WP Water Soluble Packs

GROUP M FUNGICIDE

# A Fungicide for Plant Disease Control Packaged in a Water Soluble Pack

ACTIVE INGREDIENTS:	
Captan*	77.8 %
Related Derivatives	1.8 %
OTHER INGREDIENTS	20.4 %
TOTAL	100.0 %
*N-Trichloromethylthio-4-cyclohexene-1,2-dicarboximide.	

CAPTAN 80 WP is a microfine wettable powder for use in water as a spray for the control of certain fungal diseases of fruit and ornamental crops, and as a soil treatment for the control of certain seed rots and damping-off diseases.

EPA Reg. No. 66330-29 EPA Est. No.

Net Contents: 1 lb (10 – 1 lb water soluble pack per one outer bag)

# 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 Inside Booklet for Additional Precautionary Statements CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE

If a known exposure occurs or is suspected, immediately start the procedures given below and contact a POISON CONTROL CENTER, PHYSICIAN, OR THE NEAREST HOSPITAL. Describe the type and extent of exposure, the victim's symptoms and follow the advice given.

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	Take off contaminated clothing.			
CLOTHING	Rinse skin immediately with plenty of water for 15-20 minutes.			
	Call a poison control center or doctor for treatment advice.			
IF INHALED	Move person to fresh air.			
	If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.			
	Call a poison control center or doctor for further treatment.			
IF SWALLOWED	Call a poison control center or doctor for treatment advice.			
	Have person sip a glass of water if able to swallow.			
	<ul> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>			

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

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

#### **EMERGENCY TELEPHONE NUMBERS:**

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL:

1-866-303-6952

**FOR CHEMICAL EMERGENCY:** Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300

#### Made in U.S.A.

# ARYSTA LIFESCIENCE NORTH AMERICA, LLC 15401 Weston Parkway, Suite 150 Cary, NC 27513

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

#### **DANGER**

Corrosive. Causes irreversible eye damage. Harmful if absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

All mixers, loaders, applicators, flaggers and other handlers (including handlers participating in seeding and transplanting as part of root-dip or greenhouse-soil treatments) must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves except flaggers, pilots and applicators driving motorized equipment,
- Chemical-resistant apron when mixing loading, participating in dip treatments, cleaning up spills, cleaning up equipment or otherwise exposed to the concentrate,
- Protective eyewear

See Engineering Controls for additional requirements.

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

#### **ENGINEERING CONTROLS**

Water-soluble packs when used correctly qualify as a closed loading system under the WPS. Mixers and loaders using water-soluble packs (1) must wear the PPE specified above for mixers and loaders and (2) must be provided and have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown a NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter.

#### **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. Wash the
  outside of gloves before removing. As soon as possible, wash thoroughly
  and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic organisms. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

This product may contaminate water through drift of spray in wind. 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. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

#### **DIRECTIONS FOR USE**

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

Read all precautions and directions for use before using. Use only for claims listed and only as specified on this 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.

#### AGRICULTURAL USE REQUIREMENTS

Use this product 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 protection equipment (PPE), notification to workers, 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). The REI for each crop is listed in the directions for use associated with each crop.

#### **EARLY ENTRY PPE**

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 water-proof material,
- -Shoes plus socks
- -Protective eyewear

#### **EYE-PROTECTION**

To mitigate eye irritation concerns from post-application exposures, the Agency is requiring that for at least seven days following the application of captan;

- 1. at least one container designed specifically for flushing eyes must be available in operating condition at the WPS-required decontamination site for workers entering the area treated with captan, and
- 2. workers must be 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 eyeflush container that is located at the decontamination site, and
- -- on how to operate the eyeflush container.

#### **DOUBLE NOTIFICATION**

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

#### 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.

#### **Entry Restrictions for Postharvest Fruit Dip**

Do not contact or allow others to contact the treated fruit until sprays have dried.

# **Entry Restrictions for All Other Non-WPS Uses**

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

In order that pesticide residues on food and forage crops will not exceed federal tolerances, use only at recommended rates and intervals, and do not apply closer to harvest than specified. Do not apply or allow to drift to adjoining food, fiber or pasture crops. Drift of Captan onto sensitive crops (e.g. D'Anjou Pears) can cause severe phytotoxicity and crop loss.

Consult State Agricultural Experiment stations or State Agricultural Extension Service for additional information, as the time of applications needed will vary with the local conditions. Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

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.

Apply only when the wind speed is 2-10 mph at the application site.

#### FOR AERIAL APPLICATIONS

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.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Do not make applications into temperature inversions.

#### FOR GROUND BOOM APPLICATION

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

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

#### **AERIAL DRIFT REDUCTION ADVISORY**

This section is advisory in nature and does not supersede the mandatory label requirements.

#### INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

#### CONTROLLING DROPLET SIZE

Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

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Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

#### **BOOM LENGTH**

For some use patterns, reducing the effective boom length to  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

#### **APPLICATION HEIGHT**

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### **SWATH ADJUSTMENT**

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

#### **WIND**

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

# **TEMPERATURE AND HUMIDITY**

When making application in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves

laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### **SENSITIVE AREAS**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when the wind is blowing away from the sensitive areas).

Do not apply this product to seeds or seed pieces.

#### MIXING INSTRUCTIONS for CAPTAN 80 WP Water Soluble Packs

The enclosed packs containing CAPTAN 80 WP are **water-soluble** which will dissolve completely in water. After opening the outer bag, drop the required number of unopened inner packs into a partially filled spray tank as directed. Reseal outer bag to protect remaining packs. Do not excessively handle water-soluble packs or expose to moisture since this may cause breakage. Do not allow packs to become wet prior to mixing spray solution. Do not handle with wet hands.

**NOTE:** Do not use packs in liquid fertilizer. Do not use packs in a tank-mix with products that contain boron or release free chlorine. The resultant reaction of water-soluble packs and boron or free chlorine is a polymer which is not soluble in water or solvents such as diesel oils, kerosene, gasoline or alcohol. Ensure the spray tank is clean. In-line strainers and nozzle screens should be clean and 50-mesh or coarser.

- 1. Fill the spray tank 1/3 to 1/2 full with clean water and begin agitation or bypass.
- 2. Add the required number of unopened packs of CAPTAN 80 WP Water Soluble Packs as determined under "Recommended Rates" directly to spray tank. Vigorous agitation is required to dissolve the WSP and disperse the CAPTAN 80 WP. Depending on the water temperature and the degree of agitation, the packs should be completely dissolved within approximately 5 to 10 minutes from the time they were added to the water. Check bottom of tank to ensure the CAPTAN 80 WP is completely dispersed. Maintain sufficient agitation during both mixing and application.
- Add other products as per label directions in the following order: Water Dispersible Granule then Wettable Powder then Soluble Concentrate then Emulsifiable Concentrate.'
- 4. Add balance of water needed.

#### **COMPATIBILITY AND PLANT SAFETY**

CAPTAN 80 WP Water Soluble Packs can be combined safely and effectively at recommended dosage rates with most commonly used fungicides and insecticides, with the exception of oil and strongly alkaline materials. Alkaline materials such as spray lime, lime-sulfur and Bordeaux mixture will reduce the fungicidal activity of CAPTAN 80 WP Water Soluble Packs. Do not apply CAPTAN 80 WP Water Soluble Packs in combination with or immediately before

or closely following oil sprays. Do not allow oil sprays on adjacent crops to drift onto crops which have been or will shortly be treated with Captan. The time factor governing the safe interval between Captan and oil sprays varies due to general climatic conditions, therefore, consult local agricultural spray programs and authorities to determine the proper timing. The use of spreaders which cause excessive wetting is not advised. Combinations with solvent formulation of organic phosphates should not be used. Combinations of Captan and sulfur should not be used on crops sensitive to sulfur. Used at high rates or in drenching sprays, Captan may cause a necrotic spotting of tender, immature leaves of certain varieties of apples, peaches, plums and cherries. This type of injury is most likely to occur in the early cover sprays during long periods of warm, cloudy, humid weather. To avoid the hazard of leaf spotting under such conditions, use Captan and other spray materials at lowest recommended rates and avoid drenching trees.

Applications can be made by aircraft or ground equipment (including concentrate and semi-concentrate equipment). Do not combine with emulsifiable liquids or wettable powders unless previous experience has proven them to be physically compatible and safe to plants. (Read compatibility and plant safety information).

For aerial or concentrate spray applications, apply the same amount of CAPTAN 80 WP Water Soluble Packs per acre as would normally be applied for dilute spray applications. Apply aerial or concentrate sprays in sufficient water for coverage.

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

#### RESISTANCE MANAGEMENT

CAPTAN 80 WP Water Soluble Packs contains a Group M<sup>1</sup> fungicide. Fungal isolates with acquired resistance to Group M<sup>1</sup> may eventually dominate the fungal population if Group M<sup>1</sup> fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by CAPTAN 80 WP Water Soluble Packs or other Group M<sup>1</sup>.

To delay fungicide resistance consider:

- Avoiding the consecutive use of CAPTAN 80 WP Water Soluble Packs or other target site of action Group M<sup>1</sup> fungicides that have a similar target site of action, on the same pathogens.
- Using tank-mixtures or premixes with fungicide from different target site of action Groups as long as the involved products are all registered for the same use and are both effective at the tank mix or prepack rate on the pathogen(s) of concern.
- Basing fungicide use on a comprehensive IPM program.
- Monitoring treated fungal/bacterial populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for fungicide resistance management and/or IPM recommendations for specific crops and resistant pathogens.

 For further information or to report suspected resistance, you may contact ARYSTA LIFESCIENCE NORTH AMERICA, LLC at toll free number 1-866-761-9397.

<sup>1</sup>The Multi-site activity grouping, designated by symbol "M", comprises a collection of various chemicals that act as general toxophores with several sites of action. These sites may differ between group members.

#### **GENERAL USE PRECAUTIONS**

Except as specified, begin applications before or at first sign of disease and repeat as needed to maintain control, but observe use limitations. Unless otherwise specified, application can be made on the day of harvest. Maximum application is for a crop cycle. Crop cycle is defined as prebloom through postharvest. Apply the high rate and/or spray at shorter intervals when climatic conditions most favor disease(s). If you are unaware of the climatic conditions favorable for disease(s) claimed for the specific use sites, you must consult with your State Agricultural Extension Service to learn of these conditions.

# **IMPORTANT**

Read label carefully. Although most of the directions on this label may be followed nationwide, a few are limited to either the eastern or western U.S. Follow those directions for your growing area where specified.

#### FRUIT AND NUT CROPS

#### **ALMONDS**

Brown rot twig and blossom blight, shothole, scab, leaf blight, anthracnose (for control of anthracnose use in a disease and resistance management program of rotational sprays with other approved materials) - Apply one CAPTAN 80 WP Water Soluble Pack per 0.18 - 0.4 acres. Dilute at a rate of 3.6 - 120 gallons of water per water soluble pack for ground equipment or at a rate of 0.9 - 8 gallons of water per water soluble pack for air applications. Use one CAPTAN 80 WP Water Soluble Pack per 0.18 - 0.27 acres when Captan is used alone. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, CAPTAN 80 WP Water Soluble Packs may be used in a tank mix at a rate of one water soluble pack per 0.27 - 0.4 acres. Apply at popcorn, bloom and petal fall stages and in cover sprays and pre-harvest sprays.

The maximum application rate is one CAPTAN 80 WP Water Soluble Packs per 0.18 acres (4.5 lb ai/acre), with a maximum seasonal application rate of 25 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (20 lb ai/acre per crop cycle). Preharvest interval (PHI) = 30 days. Note the restricted entry interval (REI) is 24 hours. Almond hulls may be fed to livestock.

#### APPLES (Eastern U.S.)

Primary scab, black rot (frogeye), *Botrytis* blossom-end rot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.2 acres. Dilute at a rate of 4 to 80 gallons of water per water soluble pack for ground equipment or at a rate of 1 to 4 gallons of water per water soluble pack for air applications. Apply at 5 to 7 day intervals as needed to maintain control in prebloom, bloom, petal fall, and first cover sprays.

Secondary scab, Brooks fruit spot, sooty blotch, fly speck, black rot, black pox, botryosphaeria rot, bitter rot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.2 to 0.4 acres. Dilute at a rate of 4 to 160 gallons of water per water soluble pack for ground equipment or at a rate of 1 to 8 gallons of water per water soluble pack for air applications. Apply at 10 to 14 day intervals in second and later cover sprays.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.2 acres (4 lb ai/acre), with a maximum seasonal application rate of 40 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (32 lb ai/acre per crop cycle). Pre-harvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

Powdery mildew – If powdery mildew is a problem, add 6 to 12 pounds of sulfur per acre to all post bloom sprays until foliage matures. Do not use CAPTAN 80 WP Water Soluble Packs in combination with or closely following or in alternation with wettable sulfur products on sulfur sensitive varieties of apples such as Red Delicious, Staymen, Baldwin, King, etc., as severe injury and defoliation may occur.

# APPLES (Western U.S.)

Primary scab – Apply one CAPTAN 80 WP Water Soluble Pack per 0.2 to 0.4 acres). Dilute at a rate of 4 to 160 gallons of water per water soluble pack for ground equipment or at a rate of 1 to 8 gallons of water per water soluble pack for air applications. To reduce the potential for disease resistance development to other fungicides, having a similar spectrum, the lower rate may be used in tank mixtures.

(Pacific Northwest): Bull's eye rot, *Botrytis* rot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.27 acres. Dilute at a rate of 5.4 to 108 gallons of water per water soluble pack for ground equipment or at a rate of 1.35 to 5.4 gallons of water per water soluble pack for air applications. Make 1 or 2 applications with late cover sprays and 1 final spray prior to harvest. Secondary scab – In midsummer cover sprays, the dosage may be reduced to one water soluble pack per 0.4 acres.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.2 acres (4 lb ai/acre), with a maximum seasonal application rate of 40 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (32 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

#### **APRICOTS**

Brown rot (twig blight), jacket rot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.33 to 0.53 acres. Dilute at a rate of 6.6 to 132.5 gallons of water per water soluble pack for ground equipment or at a rate of 3.3 to 6.6 gallons of water per water soluble pack for air application. Apply in red bud, bloom, 75% petal fall, and cover sprays. To reduce potential for disease resistance

development to other fungicides having a similar spectrum, use the lower rate in tank mixtures.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.33 acres (2.5 lb ai/acre), with a maximum seasonal application rate of 15.6 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (12.5 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# **BLUEBERRIES (Eastern U.S.)**

Botrytis gray mold or berry rot, mummy berry – Apply one CAPTAN 80 Water Soluble Pack per 0.33 acres in sufficient water for thorough coverage by ground. Dilute at a minimum rate of 1.65 gallons of water per water soluble pack for air application. Start spray program when buds swell or when buds have loose scales. Repeat at 7 day intervals through blossom period. Repeat at 7 to 10 day intervals from late bloom.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.33 acres (2.5 lb ai/acre), with a maximum seasonal application rate of 43.75 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (35 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 48 hours.

# **BLUEBERRIES (Western U.S.)**

Botrytis gray mold or berry rot, mummy berry – Apply one CAPTAN 80 WP Water Soluble Pack per 0.33 to 0.8 acres. Dilute at a rate of 6.6 to 160 gallons of water per water soluble pack for ground equipment or at a rate of 1.65 to 16 gallons of water per water soluble pack for air application. Begin at mid-bloom, repeat at 7 to 10 day intervals until maturity.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.33 acres (2.5 lb ai/acre), with a maximum seasonal application rate of 43.75 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (35 lb ai/acre per crop cycle). Pre-harvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 48 hours.

#### CHERRIES (Eastern U.S.)

Brown rot, leaf spot, *Botrytis* rot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres. Dilute at a rate of 8 to 80 gallons of water per water soluble pack for ground equipment or at a rate of 4 to 8 gallons of water per water soluble pack for air applications. Apply in prebloom, bloom, petal fall, shuck, cover and preharvest sprays. Applications at 3 to 4 day intervals may be necessary during bloom to control blossom blight. Repeat applications at 7 to 10 day intervals as needed to maintain control up to start of harvest. If powdery mildew is a problem, add 6 lbs. sulfur per acre to the petal fall, shuck, or early cover sprays. If sulfur is added, CAPTAN 80 WP Water Soluble Packs may be reduced to one water soluble pack per 0.8 acres in these sprays. Postharvest sprays: Leaf spot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres. Dilute at a rate of 8 to 80 gallons of water per water soluble pack for

ground equipment. Apply immediately after harvest and repeat application in 10 to 14 days.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.4 acres (2 lb ai/acre), with a maximum seasonal application rate of 17.5 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (14 lb ai/acre). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# **CHERRIES (Western U.S.)**

Brown rot, blossom blight, brown rot (fruit), leaf spot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 to 0.53 acres. Dilute at a rate of 8 to 106 gallons of water per water soluble pack for ground equipment or at a rate of 4 to 10.6 gallons of water per water soluble pack for air applications. Apply in prebloom, bloom, petal fall, shuck cover, and preharvest sprays.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.4 acres (2 lb ai/acre), with a maximum seasonal application rate of 17.5 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (14 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# **GRAPES (U.S., except CA)**

Phomopsis cane and leaf spot, downy mildew, suppression of black rot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 to 0.8 acres. Dilute at a rate of 8 to 160 gallons of water per water soluble pack for ground equipment or at a rate of 2.8 to 16 gallons of water per water soluble pack for air applications. Apply when shoots are 0.5 to 1.5 inches long, when shoots are 3-5 inches long, and when shoots are 9-12 inches long. Repeat just before bloom, immediately after bloom, and continue at 10 to 14 day intervals as long as disease conditions persist. Use the lower rate when spraying less susceptible grape varieties or when conditions are less favorable for disease development. Use the higher rate on susceptible grape varieties and during periods of weather highly favorable for disease development.

Bunch rot (*Botrytis*) – Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres. Dilute at a rate of 8 to 80 gallons of water per water soluble pack using ground equipment of at a rate of 2.8 to 8 gallons of water per water soluble pack for air application. Make 2 applications before bloom and 1 immediately after bloom. Repeat periodically, making 3 cover applications before bunches close.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.4 acres (2 lb ai/acre), with a maximum seasonal application rate of 15 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (12 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 48 hours.

# **GRAPES** (California)

Bunch rot (*Botrytis*) – Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres. Dilute at a rate of 8 to 80 gallons of water per water soluble pack for ground equipment or at a rate of 2.8 to 8 gallons of water per water soluble pack for air applications. Make 2 applications before bloom and 1 immediately after bloom. Repeat periodically, making 3 cover applications before the bunches close.

Phomopsis cane and leaf spot (current season infection) - Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 to 0.5 acres and dilute at a rate of 8 to 100 gallons of water per water soluble pack using ground equipment. Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres and dilute at a rate of 2.8 to 8 gallons of water for air application. Apply first spray when green tissue begins to show but before shoots are 1 inch long and repeat application when shoots are 6 to 8 inches long.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.4 acres (2 lbs ai/acre), with a maximum seasonal application rate of 15 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (12 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 48 hours.

# **NECTARINES (U.S.)**

Brown rot, scab – Apply one CAPTAN 80 WP Water Soluble Pack per 0.2 to 0.4 acres. Dilute at a rate of 4 to 100 gallons of water per water soluble pack for ground equipment or at a rate of 2 to 8 gallons of water per water soluble pack for air applications. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, the lower rate may be used in tank mixtures. Apply in full pink, bloom, petal fall, shuck, cover and preharvest sprays. Applications at 3 to 4 day intervals may be necessary during bloom to control blossom blight. Repeat application at 7 to 14 day intervals as needed to maintain control. Continue applications throughout harvest if conditions favor brown rot. If powdery mildew is a problem, add 7.5 pounds sulfur per acre to the petal fall, shuck and early cover spray. If sulfur is added, CAPTAN 80 WP Water Soluble Packs may be reduced to one water soluble pack per 0.63 acres in these sprays.

Shothole (peach blight, coryneum blight) – Apply one CAPTAN 80 WP Water Soluble Pack per 0.2 to 0.4 acres. Dilute at a rate of 4 to 100 gallons of water per water soluble pack for ground equipment or at a rate of 2 to 8 gallons of water per water soluble pack for air applications. Apply in pink bud, full bloom, petal fall and cover sprays as necessary and as a post harvest spray (but before leaves drop).

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.2 acres (4 lb ai/acre), with a maximum seasonal application rate of 30 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (24 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# **PEACHES (U.S.)**

Brown rot, scab – Apply one CAPTAN 80 WP Water Soluble Pack per 0.2 to 0.4 acres. Dilute at a rate of 4 to 160 gallons of water per water soluble pack for ground equipment or at a rate of 2 to 8 gallons of water per water soluble pack for air applications. To reduce the potential for disease resistance development to other fungicides having a similar spectrum, the lower rate may be used in tank mixtures. Apply in full pink, bloom, petal fall, shuck stages and in cover and preharvest sprays. When conditions are favorable, make applications at 3 to 4 day intervals during bloom to control blossom blight. Then repeat application at 7 to 14 day intervals as needed to maintain control. Continue applications through harvest if conditions favor brown rot. If powdery mildew is a problem, add 12 pounds sulfur per acre to the petal fall, shuck and early cover spray. If sulfur is added, CAPTAN 80 WP Water Soluble Packs may be reduced to one water soluble pack per 0.4 acres) in these sprays.

Shothole (peach blight, coryneum blight) – Apply one CAPTAN 80 WP Water Soluble Pack per 0.2 acres. Dilute at a rate of 4 to 80 gallons of water per water soluble pack for ground equipment or at a rate of 2 to 4 gallons of water per water soluble pack for air applications. Apply in pink bud, full bloom, petal fall stages and cover sprays as necessary and as a postharvest spray (but before leaves drop).

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.2 acres (4 lb ai/acre), with a maximum seasonal application rate of 40 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (32 lb ai/acre). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

# PLUMS, FRESH PRUNES (Eastern U.S.)

Brown rot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.27 acres. Dilute at a rate of 5.4 to 81 gallons of water per water soluble pack for ground equipment or at a rate of 2.7 to 5.4 gallons of water per water soluble pack for air applications. Apply in full pink, bloom and petal fall sprays. Repeat applications at 7 to 14 day intervals as needed to maintain control. Continue applications through harvest if conditions favor brown rot. The addition of a neutral spreader has improved coverage.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.27 acres (3 lb ai/acre), with a maximum seasonal application rate of 33.75 pounds of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (27 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

#### PLUMS, FRESH PRUNES (Western U.S.)

Brown rot — Apply one CAPTAN 80 WP Water Soluble Pack per 0.27 to 0.4 acres. Dilute at a rate of 5.4 to 120 gallons of water per water soluble pack for ground equipment or at a rate of 2.7 to 8 gallons of water per water soluble pack for air applications. Use the lower rates when tank mixes with fungicides of

similar spectrum activity are used. Apply at green bud, popcorn, bloom, and petal fall stages. Repeat in cover sprays as conditions warrant.

Prune russet scab (lacy scab) – Apply one CAPTAN 80 WP Water Soluble Pack per 0.27 to 0.4 acres. Dilute at a rate of 5.4 to 120 gallons of water per water soluble pack using ground equipment. Apply at full bloom.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.27 acres (3 lb ai/acre), with a maximum seasonal rate of 33.75 lbs of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (27 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

#### RASPBERRIES, BLACKBERRIES AND DEWBERRIES

For the control of Anthracnose, *Botrytis*, and Spur Blight – Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres when blossoms are in bud (young canes are 8-10" long). Make second application two weeks later. Apply a fall spray after old canes are removed.

For the control of Fruit rot – Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres at early bloom (5 to 10% bloom) and again at full bloom. Additional applications can be made at 10-14 day intervals as needed. Do not apply within 3 days of harvest (PHI = 3 days).

Apply CAPTAN 80 WP Water Soluble Packs as indicated above in 18 to 40 gallons of water per water soluble pack using ground equipment or in 4 to 8 gallons of water per water soluble pack by air. Use the higher volume as foliage increases.

Do not apply more than 12 pounds of CAPTAN 80 WP Water Soluble Packs per acre per crop cycle (10lbs ai/acre per crop cycle). Note the restricted entry interval (REI) is 48 hours.

# STRAWBERRIES (U.S.)

Botrytis (gray mold), leaf spot – Apply by broadcast spray at one CAPTAN 80 WP Water Soluble Pack per 0.27 to 0.53 acres in sufficient water for thorough coverage by ground equipment. Dilute at a rate of 2.7 to 10.6 gallons of water per water soluble pack for air application. Begin applications when new growth starts in the spring and before fruit starts to form. Repeat at 7 to 14 day intervals. Under conditions favorable to fruit rot, continue applications through harvest period, treating immediately after each picking.

Anthracnose Fruit Rot (*Colletotrichum acutatum*) – Apply one CAPTAN 80 WP Water Soluble Pack per 0.27 acres (3.0 lbs ai/acre) in sufficient water for thorough coverage by ground equipment. Begin applications at flower bud emergence. Apply at 7 day intervals through harvest.

The maximum application rate is one CAPTAN 80 WP Water Soluble Pack per 0.27 acres (3 lb ai/acre), with a maximum seasonal application rate of 30 lbs of

Captan 80 WP per acre per crop cycle (24 lb ai/acre per crop cycle). Preharvest interval (PHI) = 0 days. Note the restricted entry interval (REI) is 24 hours.

If applying as directed/banded spray: use band rate of CAPTAN 80 WP Water Soluble Packs according to the following formula:

Plant Bed Width (inches)	X	Unit of acre(s) / one CAPTAN 80 WP Water Soluble Pack	=	Banded rate of units of acre(s) / one CAPTAN 80 WP Water Soluble Pack
Row spacing (inches)				

#### **SPECIAL USES**

# PEACH PREPLANT ROOT DIP (California)

Preventative pre-plant dip treatment for crown gall. Use 40 gallons of water plus 1.3 pints diluted sodium hypochlorite (5.25% bleach) per one CAPTAN 80 WP Water Soluble Pack. Wash nursery trees to remove soil from roots. Cut off all dormant buds and suckers in crown area and prune root system if necessary. Submerge the entire dormant tree for 5 minutes. Recharge dip during operation at a rate of 3.2 pints diluted sodium hypochlorite per one CAPTAN 80 WP Water Soluble Pack per 100 gallons of water. Do not contact or allow others to contact the treated fruit until the sprays have dried.

#### POSTHARVEST FRUIT APPLICATION

For control of various molds and storage rots (*Botrytis*, Gleosporium, Rhizopus). Use as postharvest dip or spray wash on the following fruits: Apples, Cherries, Pears – Use one CAPTAN 80 WP Water Soluble Pack per 62.5 gallons of water. Apply as a drench or in a dip tank. Recharge wash solution periodically when tank volume is reduced by 25%. Bring water back to volume and add one CAPTAN 80 WP Water Soluble Pack for each 62.5 gallons of water that was added. At end of every 8-hour shift, empty tank, flush and charge with fresh dilution. Do not allow dip tank solution to stand overnight. Maintain continuous agitation during dipping operation. For use in mechanical fruit-dip operations only. Hand dipping of fruit is prohibited. Do not contact or allow others to contact the treated fruit until it is dry.

#### DISPOSAL OF LEFTOVER POSTHARVEST TREATMENT MIXTURE

Leftover dip or spray mixtures containing Captan may be used as a foliar spray for the same crop in case of apples and cherries (but not pears) as treated by the dip or spray mixture, or to registered turf and ornamental sites; observing all restrictions such as maximum pounds applied per application and season.

When calculating application rates, if analytical services are not available to determine the exact quantity of Captan remaining in the mixture, assume that the tank still contains 1.6 pounds of CAPTAN 80 WP per 100 gallons of water (1 water soluble pack per 62.5 gallons). If the dip or spray mixture contains other pesticides in addition to Captan, refer to the product label(s) for information regarding disposal.

Captan wastes are acutely hazardous to the eyes. Improper disposal of spray or dip tank mixtures is a violation of Federal Law. If the leftover dip or spray mixture cannot be disposed of in the manner prescribed above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance concerning the disposal of spent or excess dip tank mixtures.

#### NON-FOOD/ORNAMENTALS

#### **USE PRECAUTIONS**

Do not apply spray to ornamental plants listed below beyond the point of drip from the leaf surface. When applying as a drench, apply only sufficient mixture to wet the surface of the soil except when the dose is specified in terms of volume of mixture per square foot of area.

#### POST-APPLICATION/ENTRY RESTRICTIONS:

--For applications to ornamentals at non-commercial sites and golf-course turfgrass, do not enter or allow others to enter until sprays have dried. The restricted entry interval (REI) for ornamentals grown for commercial or research use is 48 hours.

#### **AZALEAS**

Damping-off of cuttings – Use 44 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Dip cuttings before bedding. Petal blight – Use 67 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Apply to soil area around plants and spray flowers just before bloom. Repeat at 7 to 14 day intervals through bloom.

#### **BEGONIAS** (Tuberous)

Damping-off, tuber rot – Use 40 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Dip tubers 30 minutes, drain and plant.

#### **CAMELLIAS**

Petal blight – Use 160 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Apply to drench soil around plants beginning when flowers start to open. Repeat at 7 to 10 day intervals through bloom.

#### **CARNATIONS**

Alternaria leaf spot, rust – Use 67 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Begin application at first sign of disease. Repeat at 7 to 10 day intervals. Shorten intervals during frequent rains and heavy dews. Damping-off of cuttings – Use 44 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Dip cuttings before bedding.

#### **CHRYSANTHEMUM**

Botrytis flower blight, Septoria leaf spot – Use 67 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Apply at first sign of disease. Repeat at 7

to 10 day intervals. Damping-off of cuttings – Use 44 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Dip cuttings before bedding.

#### **GINSENG**

For control of Cylindrocarpon root rot (*Cylindrocarpon destructans*), Grey mold (*Botrytis cinerea*), Phytophthora root rot (*Phytophthora cactorum*), Pythium root rot (*Pythium* spp.) and Rhizoctonia root and crown rot (*Rhizoctonia solani*).

Grey mold - Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres. Dilute at a rate of 40 gallons of water per water soluble pack as a foliar spray. Repeat every 7 – 10 days or when conditions favor disease development.

Root and crown diseases - Apply one CAPTAN 80 WP Water Soluble Pack per 0.4 acres. Dilute at a rate of 80 gallons of water per water soluble pack as a drench treatment. Repeat every 7-10 days or when conditions favor disease development.

Do not use ginseng for food or feed purpose within 1 (one) year of treatment. Do not exceed 8 applications in one growing season. Do not apply more than 20 lbs of CAPTAN 80 WP Water Soluble Pack (16 lb ai) per acre per season. Note the restricted entry interval (REI) is 48 hours.

# **GLADIOLUS (Corms)**

Corm rot and decay, damping-off – Use 40 gallons of water per one CAPTAN 80 WP Water Soluble Pack, dip corms 20 to 30 minutes. Drain and plant.

#### TURF (golf course)

Leaf spot, damping-off, brown patch, melting out, seedling blights, and brown spot on St. Augustine grass – Use 80 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Apply 10 gallons spray per 1,000 square feet. Begin when growth starts in spring. Repeat at 7 to 14 day intervals throughout season. Do not graze treated areas or feed clippings to livestock.

The maximum application rate for turf (golf course) is one CAPTAN 80 WP Water Soluble Pack per 0.2 acres (4.3 lb ai/acre) with a maximum seasonal application rate of 10.75 lbs of CAPTAN 80 WP Water Soluble Packs per acre (8.6 lb ai/acre).

Do not enter or allow others to enter until sprays have dried. Do not apply to turfgrass in residential sites, including homes, apartment buildings, daycare centers, schools, playgrounds, parks, recreational areas, sports fields or other residential areas.

#### TURF (sod farms)

Damping-off and other soil borne diseases — Use one CAPTAN 80 WP Water Soluble Pack per 8,000 square feet or 80 gallons of water per one CAPTAN 80 WP Water Soluble Pack, using 10 gallons spray per 1,000 square feet. Cultivate into upper 3 to 4 inches before planting.

The maximum application rate for turf (sod farms) is one CAPTAN 80 WP Water Soluble Pack per 0.2 acres (4.3 lb ai/acre), with a maximum seasonal application rate of 10.75 lbs of CAPTAN 80 WP Water Soluble Packs per acre per season (8.6 lb ai/acre per season). Note the restricted entry interval (REI) is 48 hours. Do not harvest sod until 48 hours after application.

#### **ROSES**

Black spot, *Botrytis* blossom blight – Use 67 gallons of water per one CAPTAN 80 WP Water Soluble Pack. Begin at first growth or first sign of disease. Repeat at 7 to 14 day intervals, and more frequently during frequent rains and heavy dews.

#### SOIL AND GREENHOUSE BENCH TREATMENT

Pre-plant treatment for damping-off, root rot disease on seedlings or transplants of roses (and other shrubs, trees, flowers) and lawn seedbeds – Use 80 gallons of water per one CAPTAN 80 WP Water Soluble Pack at a rate of 15 gallons of spray per 1,000 square feet. Cultivate into upper 3 to 4 inches of soil before planting.

Only the applicator is permitted to be in the greenhouse during application of Captan. Open vents to greenhouse during application and for at least 1 hour after application.

Note the restricted entry interval (REI) is 48 hours. Once the treatment and any seeding or transplanting tasks done as part of the treatment are complete, the 48-hour REI begins. Exception, once the seeds or transplants are planted in the soil, the Worker Protection Standard allows workers to enter the treated area without restriction if there will be no contact with the soil subsurface.

#### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited. Do not reuse empty container.

**PESTICIDE STORAGE:** Keep pesticide in original container. Keep container tightly closed when not in use. Protect from excessive heat. Store in a cool, dry place.

**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 instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available, or 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.

# **Warranty and Disclaimer Statement**

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

Arysta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

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