



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

February 26, 2018

Jim Barron  
Arysta Life Science North America LLC  
15401 Weston Parkway, Suite 150  
Cary, NC 27519

**Subject:** Label Amendment: Page 1: Relocates ginseng use with revised use directions from ornamental section, to food crop section, based on approved me-too use; Updates PPE information regarding glove material types; Updates "User Safety Recommendations".

Product Name: Captan 80 WDG  
EPA Registration Number: 66330-29  
Application Date: September 6, 2017  
Decision Number: 532999

Dear Mr. Barron:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Page 2 of 2  
EPA Reg. No. 66330-29  
Decision No. 532999

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact me at 703 308-9443 or via email at [kish.tony@epa.gov](mailto:kish.tony@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Tony Kish", with a stylized, cursive script.

Tony Kish, Product Manager 22 Fungicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure: Stamped Label

**ACCEPTED**

Feb 26, 2018

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 66330-29

**GROUP M4 FUNGICIDE**

# CAPTAN 80 WDG

[Alternate Brand Name: Captan 80 WDG Fungicide]

**A Fungicide for Plant Disease Control**

**INGREDIENTS:** \_\_\_\_\_ **% BY WT.**

**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 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.

**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.)

Complete First Aid affixed to front panel. See [Leaflet] [Booklet] for complete Precautionary Statements and Directions for Use

**CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE**

If a known exposure occurs or is suspected, immediately start the procedures given in the First Aid section 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	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <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.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <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>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <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 advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately 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 by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>NOTE TO PHYSICIAN:</b> Probable mucosal damage may contraindicate the use of gastric lavage. Corrosive to the eye. If splashed in eyes refer immediately to an ophthalmologist for evaluation, medical treatment, and follow-up care.	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. <b>FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL PROPHARMA:</b>	

1-866-303-6952 or +1-651-603-3432.

**FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident) CALL CHEMTREC:**

1-800-424-9300 or +1-703-527-3887.

**For Product Use Information Call 1-866-761-9397**

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

**xxxxxxV003**

**[Batch Code will be placed on the container.]**

**Produced For:**

**ARYSTA LIFESCIENCE NORTH AMERICA, LLC**

**15401 Weston Parkway, Suite 150**

**Cary, NC 27513**

**EPA Est. No.:**

**NET CONTENTS:**

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**DANGER: CORROSIVE.** Causes irreversible eye damage. Harmful if absorbed through skin, inhaled, or swallowed. 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 including nitrile, butyl, neoprene and/or barrier laminate). 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.

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 made of any waterproof material (barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, natural rubber  $\geq$  14 mils, polyethylene, polyvinyl chloride (PVC)  $\geq$  14 mils, and/or viton  $\geq$  14 mils ), *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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then, wash thoroughly and change into clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing them. 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.

For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

### 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 (nitrile, butyl, neoprene and/or barrier laminate),
- 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 labeled 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 to 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 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 to 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 labeled 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 causes 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 labeled rates and avoid drenching trees.

Applications can be made by aircraft or ground equipment (including concentrate and semi-concentrate equipment). Pour labeled 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.

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.

## 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 2.5-5.6 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 3.75-5.6 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 2.5-3.75 pounds per acre. Apply at popcorn, bloom and petal fall stages and in cover sprays and pre-harvest sprays.

[\*Not registered for use in California.]

The maximum application rate is 5.6 lb of **CAPTAN 80 WDG** per acre (4.5 lb ai/acre), with a maximum seasonal application rate of 25 lb 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 (frog-eye), Botrytis blossom-end-rot – Apply 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 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 2.5-5 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 lb of **CAPTAN 80 WDG** per acre (4 lb ai/acre), with a maximum seasonal application rate of 40 lb 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 6-12 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 2.5-5 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 lb of **CAPTAN 80 WDG** per acre (4 lb ai/acre), with a maximum seasonal application rate of 40 lb 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 1.9-3 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 lb of **CAPTAN 80 WDG** per acre (2.5 lb ai/acre), with a maximum seasonal application rate of 15.6 lb 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 lb of **CAPTAN 80 WDG** per acre (2.5 lb ai/acre), with a maximum seasonal application rate of 43.75 lb 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 1.25-3 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 lb of **CAPTAN 80 WDG** per acre (2.5 lb ai/acre), with a maximum seasonal application rate of 43.75 lb 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 lb 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 lb of **CAPTAN 80 WDG** per acre (2 lb ai/acre), with a maximum seasonal application rate of 17.5 lb 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 1.875-2.5 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 lb of **CAPTAN 80 WDG** per acre (2 lb ai/acre) with a maximum seasonal application rate of 17.5 lb 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.

## 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 3.75 lb of **CAPTAN 80 WDG** per acre (3 lb ai/acre) every 6 to 8 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 exceed 8 applications in one growing season.

Steps should be taken to assure wildlife are prevented from browsing treated ginseng foliage including keeping ginseng crops contained at all times inside of shade structures, using vertical fencing, and using other wildlife deterrents such as scarecrows, owl decoys, balloons, noise machines, etc. as needed.

Do not apply more than 30 lb of **CAPTAN 80 WDG** (24 lb ai) per acre per year. Preharvest Interval (PHI) = 14 days for foliar applications. Note the restricted entry interval (REI) is 24 hours.

**[\*Not registered for use in California]**

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

Phomopsis cane and leaf spot, downy mildew, suppression of black rot – Apply 1.25-2.5 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 1/2 to 1 1/2 inches long, when shoots are 3 to 5 inches long, and when shoots are 9 to 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 lb of **CAPTAN 80 WDG** per acre (2 lb ai/acre), with a maximum seasonal application rate of 15 lb 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 2-2.5 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 lb of **CAPTAN 80 WDG** per acre (2 lb ai/acre) with a maximum seasonal application rate of 15 lb 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.) – [Not registered for use in California.]**

Brown rot, scab – Apply 2.5-5 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 2.5-5 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 lb 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 2.5-5 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 lb of **CAPTAN 80 WDG** per acre (4 lb ai/acre), with a maximum seasonal application rate of 40 lb 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 lb 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 2.5-3.75 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 2.5-3.75 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 lb of **CAPTAN 80 WDG** per acre (3 lb ai/acre), with a maximum seasonal rate of 33.75 lb 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 – [Not registered for use in California.]**

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" to 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 to 14 day intervals as needed. Do not apply within 3 days of harvest (PHI = 3 days).

Apply **CAPTAN 80 WDG** as directed in 45 to 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 1.875-3.75 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 picking.

Anthracnose Fruit Rot (*Colletotrichum acutatum*) – Apply 3.75 pounds **CAPTAN 80 WDG** per acre (3.0 lb ai/acre) in sufficient water for thorough coverage by ground equipment. Begin applications at flower bud emergence. Apply at 7-day intervals through harvest. **(Not registered for use in California.)**

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 lb 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:

$$\frac{\text{Plant Bed Width (inches)}}{\text{Row Spacing (inches)}} \times \text{Broadcast rate per acre} = \text{Banded rate of } \mathbf{CAPTAN\ 80\ WDG} \text{ per acre}$$

#### **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 pts diluted sodium hypochlorite and 2.5 pounds **CAPTAN 80 WDG** per 100 gallons of water. Do not allow dip-tank solution to stand overnight. Do not allow others to contact the treated plants until the plants have dried.

## POST-HARVEST FRUIT APPLICATION

For control of various molds and storage rots (*Botrytis*, *Gloeosporium*, *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 PEACH PREPLANT ROOT DIP OR 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 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 as directed, 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 in the following sections 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, 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 to 7 days 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 lb **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 lb **CAPTAN 80 WDG** per 100 gallons of water. Dip cuttings before bedding.

### 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.

### 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.



## SOIL AND GREENHOUSE BENCH TREATMENT

Pre-plant treatment for damping-off, root rot disease on seedlings or transplants of roses (and other ornamental shrubs, trees and 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

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 HANDLING:** 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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