

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

September 29, 2022

Katarzyna O'Donnell Regulatory Affairs Associate Certis USA, LLC 945 Guilford Road, Suite 175 Columbia, MD 21046

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 – Addition of

Multiple Alternative Brand Names to Labeling

Product Name: CX-9030

EPA Registration Number: 70051-108

EPA Receipt Date: 05/26/2022 Action Case Number: 00368445

Dear Mrs. O'Donnell:

The U.S. Environmental Protection Agency (EPA) is in receipt of your application for notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Biopesticides and Pollution Prevention Division (BPPD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The alternate brand names Double Nickel 55 WG, Amylo-X 25 WG, and Bacstar 25 have been added to the product's records. You must submit one (1) copy of the final printed labeling with the modifications.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and is subject to review by EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists 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 EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to EPA's Office of Enforcement and Compliance Assurance.

Page 2 of 2 EPA Reg. No. 70051-108 Action Case No. 00368445

If you have any questions, please contact Joseph Mabon via email at mabon.joseph@epa.gov.

Sincerely,

Alexandra Boukedes, Product Manager 92

Microbial Pesticides Branch Biopesticides and Pollution Prevention Division (7511M Office of Pesticide Programs

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Enclosure

# MASTER LABEL SUBLABEL A: Agricultural Use

CX-9030

#### **BIOFUNGICIDE**

{Alternate Brand Names: See Last Page for List of ABNs}

#### Water Dispersible Granular Biofungicide



<sup>\*</sup>Contains a minimum of  $5 \times 10^{10}$  colony-forming units (cfu) per gram of product

# KEEP OUT OF REACH OF CHILDREN CAUTION

#### **FIRST AID**

*IF IN EYES:* Hold eyes 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.

#### Hotline Number

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line No.:1-800-255-3924 for emergency information.

#### **MANUFACTURED BY:**

Certis USA LLC 9145 Guilford Road, Suite 175 Columbia, MD 21046



EPA Reg. No. 70051-108 EPA Est. No. 70051-CA-1

Revision Date: 2022-05-26

Revises: 2020-10-29 ESL

Lot Number: Net Weight:

#### NOTIFICATION

70051-108

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

09/29/2022

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

Revision Date: 2022-05-26

Revises: 2020-10-29 ESL

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixer/loaders and applicators must wear a NIOSH approved particulate filter with any N, R, P filter with NIOSH approval number prefix TC-84A; or a NIOSH- approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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

#### **Engineering Controls:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR §170.607 (d), (e), and (f), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from treated areas.

#### PRODUCT INFORMATION

CX-9030 is a broad-spectrum preventative biofungicide for control or suppression of fungal and bacterial plant diseases. The active ingredient of CX-9030 is a strain (D747) of the beneficial rhizobacterium *Bacillus amyloliquefaciens*, which colonizes roots, leaves, and other plant surfaces. D747 rapidly colonizes plant root hairs, leaves, and other surfaces, preventing establishment of disease-causing fungi and bacteria.

Revision Date: 2022-05-26

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CX-9030 can be applied alone or in combination and/or rotation with chemical fungicides as a tool for integrated disease management in agricultural crops, ornamental and nursery plants, and turfgrass, in accordance with the most restrictive of those label limitations and precautions. CX-9030 offers a valuable tool for management of resistance to chemical fungicides through its multiple and unique modes of action.

CX-9030 can be applied up to and including the day of harvest.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal Agency responsible for pesticide regulation. 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 only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

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

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

#### 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. Keep unprotected persons out of treated areas until sprays have dried.

#### **MIXING AND HANDLING INSTRUCTIONS**

Mix the required amount of CX-9030 in cool water with sufficient agitation to maintain a uniform suspension in the spray or mixing tank. Tank should be cleaned prior to use. Do not use highly alkaline or highly acidic water to mix sprays. Use a buffering agent if necessary to maintain neutrality (pH 6 to 8) of water in the tank. Maintain agitation during application. Apply immediately after mixing; do not allow spray mix to stand overnight.

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#### **APPLICATION METHODS**

*Ground:* CX-9030 can be applied in most commonly-used ground application equipment, such as tractor-mounted boom, airblast, high clearance, hose-end, backpack, and other pressurized sprayers; hose-end or hand-held sprayers; foggers or mist blowers; water wheel and other drench applicators; and shank or other soil injection method.

Aerial: CX-9030 can be applied by fixed or rotary winged aircraft in a minimum of 3 gallons of water per acre. Standard precautions should be taken to minimize spray drift.

*Chemigation:* CX-9030 can be applied through drip (trickle) and sprinkler type irrigation equipment. Refer to the section entitled "Chemigation Instructions" for detailed instructions.

### Agricultural crops

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION		
	Vegetables and Melons			
Brassica Leafy Vegetables such as broccoli, cabbage, cauliflower, brussel sprouts, kohlrabi, mustard and collard greens, kale, bok choi, other cole crops (including those grown for seed production), and related crops.	Pin rot complex (Alternaria/Xanthomonas)† Leaf spots (Alternaria spp., Xanthomonas spp.) Downy mildew (Peronospora spp.) Powdery mildew (Erisyphe polygoni)	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.		
	"Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> † spp.	See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.		
Bulb Vegetables such as onions, garlic, shallots, and others (including those grown for seed production)	Botrytis spp. (neck rot, leaf blight) Purple blotch (Alternaria spp.) Downy mildew (Peronospora spp.) Powdery mildew (Erisyphe spp.) Rust (Puccinia pori)† White rot (Sclerotium cepivorum)	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.		
	"Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> † spp.	See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.		

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
Cucurbit Vegetables such as cucumber, squash (all types), cantaloupe, muskmelon, watermelon, and other melons (including those grown for seed production).	Powdery mildew (Erisyphe and Sphaerotheca spp.) Downy mildew (Pseudoperonospora spp.) Gummy stem blight (Didymella bryoniae and Phoma cucurbitacearum) Vine decline (Monosporascus cannonballus)** Charcoal rot (Macrophomina phaseoli)** "Damping off," seedling blights, and root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, Phytophthora, or Verticillium† spp.	See instructions for "Soil application."  ** Not for use in California.  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Fruiting Vegetables such as tomato, pepper, eggplant, tomatillo, okra, and others (including those grown for seed production).	Bacterial spot (Xanthomonas spp.)†‡ Bacterial speck (Pseudomonas syringae pv. tomato)†‡ Gray mold (Botrytis cinerea) Powdery mildew† (Leveillula, Oidiopsis, Erisyphe, and Sphaerotheca spp.) Early blight (Alternaria solani)† Late blight (Phytophthora infestans)† "Damping off," seedling blights, and root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, Phytophthora, or Verticillium† spp.	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.  ‡ Tank mix or rotate with copper-based fungicides at label rates for improved control.  See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Leafy Vegetables (Except Brassica Vegetables) such as head and leaf lettuce, celery, spinach, radicchio, arugula, watercress, and others (including leafy Brassica vegetables such as mustard and collard greens, kale, bok choy, and related crops), including those grown for seed production.	Southern blight (Sclerotium rolfsii)†**  Downy mildew (Bremia lactucae, Peronospora spp.)†  Powdery mildew (Golovinomyces (Erysiphe) cichoracearum)†  Bacterial blights Leaf spots (Cercospora spp.)  Botrytis spp.  Rusts (Puccinia spp.)	** Not for use in California.  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Head and leaf drop (Sclerotinia spp.) Pink rot (Sclerotinia sclerotiorum) White mold (Sclerotinia sclerotiorum)	Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist.

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
	"Damping off," seedling blights, and root or crown diseases caused by <i>Pythium, Rhizoctonia, Fusarium, Phytophthora</i> , or <i>Verticillium</i> † spp. Bottom rot ( <i>Rhizoctonia solani</i> )	See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Legume Vegetables (Succulent or Dried) succulent and dried beans and peas such as green, snap, shell, and Lima bean, garbanzo bean, chickpea, soybean, dry bean, pea, split pea, lentil, and other legumes, including those grown for seed production.	Gray mold (Botrytis cinerea) Powdery mildew (Microsphaera diffusa) Rusts†, including Uromyces appendiculatus, Puccinia spp., and Asian soybean rust (Phayospora pachyrhizi)	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	White mold (Sclerotinia sclerotiorum)	Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist.
	"Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> † spp.	See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Root, Tuber, and Corm Vegetables such as potato, sweet potato, carrot, cassava, beet, ginger, radish, horseradish, ginseng, turnip, and other root, tuber and corm crops (including those grown for seed production).	Black root/crown rot (Alternaria spp.) Bacterial leaf blight (Xanthomonas campestris) Downy mildew (Peronospora spp.) Powdery mildew (Erisyphe spp.) Gray mold (Botrytis spp.) Black leg /bacterial soft rot (Erwinia carotovora)** Early blight (Alternaria solani)† Late blight (Phytophthora infestans)†	** Not for use in California.  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	White mold (Sclerotinia sclerotiorum)	Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist.

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
	Black scurf ( <i>Rhizoctonia solani</i> ) Cavity spot ( <i>Pythium</i> spp.) "Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> † spp.	See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.  For treatment of horseradish roots immediately before transplanting: immerse bare roots (individually or in bunches) for 10 seconds in a suspension of 2-4 ounces of CX-9030 per gallon of water.
Other Vegetables such as asparagus, peanut	White mold (Sclerotinia sclerotiorum)	Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist.
	Botrytis spp. Rusts (Puccinia spp.) Leaf spots (Cercospora and Cercosporidium spp.)†	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	"Damping off," seedling blights, and root or crown diseases caused by <i>Pythium, Rhizoctonia, Fusarium, Phytophthora</i> , or <i>Verticillium</i> ; spp.	See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Tree Fruits ar	nd Nuts
	Greasy spot (Mycosphaerella citri)†	Apply at first new foliar flush and repeat with each new flush. Tank mix with spray oil or copper based fungicide at labeled rates.  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Citrus Fruit	Citrus canker ( <i>Xanthomonas</i> campestris pv. citri) <sup>‡</sup>	‡Tank mix or rotate with copper-based fungicides at label rates for improved control.
such as orange, lemon, lime, grapefruit, tangerine (mandarin), tangelo, pummelo, and other citrus	Scab (Elsinoe fawcetti)†	Start applications at first new foliage flush and repeat at petal fall and when fruit are ½ inch in diameter.  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Postbloom fruit drop (Colletotrichum acutatum)† Alternaria leaf spot (Alternaria alternata) Melanose (Diaporthe citri)†	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Root and collar rots† caused by Phytophthora, Pythium, Fusarium, Rhizoctonia, Armillaria	See instructions for "Root diseases" and "Collar rots." † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
Pome Fruits such as apple, pear, crabapple, quince, and others	Powdery mildew (Podosphaera leucotricha)	Make first application at or before tight cluster if conditions favor disease development. Repeat at 7-10 day intervals through the second cover spray or longer on susceptible varieties or if environmental conditions favor rapid disease development.
	Flyspeck ( <i>Zygophiala jamaicensis</i> )** Sooty blotch disease complex** Brooks spot ( <i>Mycosphaerella pomi</i> )** Bot rot/white rot ( <i>Botryosphaeria dothidea</i> )** Bitter rot ( <i>Colletotrichum</i> spp.) Cedar apple rust ( <i>Gymnosporangium juniperi-virginianae</i> )**	Begin applications before bloom when environmental conditions favor disease development, repeating at 7 to 14 day intervals or as needed. Control may be enhanced by addition of a surfactant to improve spray coverage. Use only surfactants known to be safe for use on the crop and for which such use is allowed.  ** Not for use in California.
	Fire blight (Erwinia amylovora)†	Rotate with antibiotics registered for fire blight control for improved performance. Begin applications at 1-5% open blossoms and repeat every 3-7 days as necessary until petal fall, when intervals can be increased to 7 days. CX-9030 can also be used in summer "cover spray" applications to control the shoot blight phase of fire blight and summer diseases. Can be mixed with copper fungicides to improve control.
		† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Scab (Venturia spp.)†	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Root and collar rots† caused by Phytophthora, Pythium, Fusarium, Rhizoctonia, Armillaria	See instructions for "Root diseases" and "Collar rots."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Stone Fruits such as apricot, cherry, nectarine, peach, plum, prune, prunus hybrids (such as pluot, aprium, plumcot) and others	Powdery mildew (Sphaerotheca and Podosphaera spp.)†	Make first application at popcorn stage and repeat every 7 days.  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Bacterial canker ( <i>Pseudomonas</i> spp.) Peach leaf curl ( <i>Taphrina deformans</i> )	
	Brown rot blossom blight ( <i>Monilinia</i> laxa)	Start applying at early bloom stage and repeat every 7 days through petal fall.

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
	Brown rot (Monilinia fructicola)†	Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections.
		† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Gray mold (Botrytis cinerea)	Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections.
	Bacterial leaf spot (Xanthomonas arbicola pv. pruni) <sup>‡</sup> Rusty spot (Podosphaera leucotricha) <sup>‡</sup>	<sup>‡</sup> Tank mix or rotate with copper-based fungicides at label rates for improved control.
	Root and collar rots† caused by	See instructions for "Root diseases" and "Collar rots."
	Phytophthora, Pythium, Fusarium, Rhizoctonia, Armillaria	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Tree Nuts such as almond,	Walnut blight (Xanthomonas campestris)	Begin applications at or before pistillate bloom, repeating every 7-10 days. Apply before rainfall if possible and tank mix or rotate with a copper-based bactericide registered for such use for improved control.
	Anthracnose (Colletotrichum acutatum)† Shot hole (Wilsonomyces carpophilus)† Brown rot (Monilinia spp.)†	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
pistachio, pecan, walnut, filbert, hazelnut, chestnut,	Bacterial canker ( <i>Pseudomonas</i> syringae)	
macadamia, and other tree nuts.	Pecan scab (Cladosprium caryigenum)† <sup>‡**</sup>	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.  ‡ Tank mix or rotate with copper-based fungicides at label rates for improved control.  ** Not for use in California.
	Root and collar rots† caused by Phytophthora, Pythium, Fusarium, Rhizoctonia, Armillaria	See instructions for "Root diseases" and "Collar rots." † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Pomegranates	Leaf and fruit spots ( <i>Cercospora</i> , <i>Gloeosporium</i> and <i>Pestalotia</i> spp.) <sup>‡</sup>	<sup>‡</sup> Tank mix or rotate with copper-based fungicides at label rates for improved control.
	Fruit rots ( <i>Alternaria, Botrytis</i> , and other spp.)	Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections.
	Powdery mildew (Sphaerotheca pannosa)	

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
	Root and collar rots† caused by Phytophthora, Pythium, Fusarium, Rhizoctonia, Armillaria	See instructions for "Root diseases" and "Collar rots." † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Other Fru	uits
	Powdery mildew (Sphaerotheca macularis, Erisyphe spp.)†	Start applications at or just before flowering and repeat every 7-10 days as needed through harvest.  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Gray mold (Botrytis cinerea)†	Begin applications at or before pistillate bloom, repeating every 7-10 days. Apply before rainfall if possible and tank mix or rotate with a copper-based bactericide registered for such use for improved control.
		† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Strawberry	Anthracnose (Colletotrichum acutatum)	
	Angular leaf spot (Xanthomonas fragariae)‡	<sup>‡</sup> Tank mix or rotate with copper-based fungicides at label rates for improved control.
	"Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> † spp.	See instructions for "Soil application" and "Root dip." For treatment of roots immediately before transplanting: immerse bare roots (individually or in bunches) for 10 seconds in a suspension of 2-4 ounces of CX-9030 per gallon of water.
	Charcoal rot ( <i>Macrophomina</i> phaseolina)**	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.  ** Not for use in California.
Berries such as blueberry, blackberry, raspberry,	Mummy berry (Monilinia vaccinii-corymbosi)†	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
loganberry,	Botrytis blight (Botrytis cinerea)	
huckleberry, kiwifruit, gooseberry, elderberry, cranberry	Sclerotinia (Sclerotinia sclerotiorum)  Bacterial canker (Pseudomonas spp.)	Apply before fall rains and again during dormancy before spring growth.
(non-flooded fields), currant, and other berries. Excludes strawberry.	Anthracnose fruit rot (Colletotrichum acutatum)	Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections.
Grapes	Powdery mildew (Erisyphe (formerly Uncinula) necator)	Start applications when new shoots are ½ to ½ inches long. Repeat at 3-5 inches, 8-10 inches, and then at 7-10 day intervals until disease conditions no longer exist.

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
such as wine grapes, table grapes, and raisins	Gray mold ( <i>Botrytis cinerea</i> ) Sour rot complex	Apply at bloom, before bunch closure, at veraison, and before harvest.
	Downy mildew (Plasmopara viticola)†	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Phomopsis (Phomopsis viticola)	Apply when shoots are ½ to 1 inch long and again when 6-8 inches long.
	Eutypa (Eutypa lata)	Mix 1 ounce CX-9030 per gallon of water and apply to pruning wounds.
	Root and collar rots† caused by Phytophthora, Pythium, Fusarium, Rhizoctonia, Armillaria	See instructions for "Root diseases" and "Collar rots."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.  For suppression of <i>Phytophthora</i> and <i>Fusarium</i> root rots: Begin applications in early spring, timed for root flush and early shoot growth. Continue applications on a 4-6 week reapplication interval with a final application timed for fall root flush. Apply via drip (elevated, buried or ground-lay), banded drench, microsprinkler, or other common chemigation techniques.
Tropical and Subtropical Fruit, Inedible Peel such as avocado, mango, papaya, pineapple, banana, plantain, and others. Excludes pomegranate.	Anthracnose (Colletotrichum spp.) Scab (Sphaceloma perseae) Bacterial canker (Xanthomonas campestris)	For avocado and mango: Apply at budbreak and repeat on 14-21 day interval as needed through harvest.  For papaya and pineapple: Apply at flowering and repeat on 14-21 day interval as needed through harvest.
	Sigatoka (Mycosphaerella fijiensis)	Apply at first appearance of leaves and repeat at 7-21 day intervals as needed, in sufficient water to obtain thorough coverage of foliage. Tank mix with spray oil or other registered fungicides for improved control.
	Root and collar rots† caused by Phytophthora, Pythium, Fusarium, Rhizoctonia, Armillaria	See instructions for "Root diseases" and "Collar rots." † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Other Cro	ops
Herbs and Spices such as basil, thyme, coriander, dill, cilantro, parsley, mint, and others (including those	Powdery mildews ( <i>Oidium</i> spp. and others) Bacterial diseases ( <i>Erwinia</i> , <i>Xanthomonas</i> , and <i>Pseudomonas</i> spp.) Rusts ( <i>Puccinia</i> spp. and others)	

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
grown for seed production).	Downy mildews (Peronospora spp. and others)† Leaf spots (Alternaria, Septoria, Colletotrichum, and Cercospora spp.)†	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	"Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> † spp.	See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Coffee berry disease ( <i>Colletotrichum coffeanum</i> ) <sup>‡</sup> Coffee rust ( <i>Hemileia vastatrix</i> ) <sup>‡**</sup>	<sup>‡</sup> Tank mix or rotate with copper-based fungicides at label rates for improved control.  ** Not for use in California.
Coffee	Anthracnose (Colletotrichum spp.)  Botrytis flower blight  Cercospora leaf spot** and berry  blotch**	** Not for use in California.
	"Damping off" and root or crown diseases caused by <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Pythium</i> , <i>Phytophthora</i> , and/or <i>Verticillium</i> † spp.	See instructions for "Soil application."  † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Tobacco	Angular leaf spot ( <i>Pseudomonas</i> spp.) Anthracnose ( <i>Colletotrichum</i> and <i>Glomerella</i> spp.) Blue mold or downy mildew ( <i>Peronospora</i> spp.)† Brown spot ( <i>Alternaria</i> ) Gray mold ( <i>Botrytis cinerea</i> ) Powdery mildew ( <i>Erysiphe cichoracearum</i> ) Target spot ( <i>Rhizoctonia solani</i> )	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
	Barn spot/ frogeye leaf spot (Cerrcospora nicotianae)	Pre-harvest applications in sufficient water to cover fruit or other harvested plant parts may improve control of postharvest infections.

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
	Collar rot (Sclerotinia slcerotiorum)	Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist.
	"Damping off," seedling blights, and	See instructions for "Soil application."
	root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, Olpidium, Phytophthora, or Verticillium† spp. Charcoal rot (Macrophomina phaseolina) Black root rot (Thielaviopsis basicola) Black shank (Phytophthora spp.)† Southern blight/southern stem rot (Sclerotium rolfsii)† Botrytis spp. Rusts (Puccinia spp.) Southern leaf blight (Bipolaris maydis/Cochliobolus heterostrophus/Helminthosporium maydis)	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
Corn including field corn,	Leaf spots ( <i>Cercospora</i> and <i>Cercosporidium</i> spp.)† Commmon rust ( <i>Puccinia sorghi</i> )†	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.
sweet corn, popcorn, sileage corn, seed corn, and other corn crops.	White mold (Sclerotinia sclerotiorum)	Apply at or immediately following planting (but before plant emergence) as a banded seedline treatment 4 to 6 inches wide. Make second application at thinning or cultivation in sufficient water and multiple nozzles to ensure thorough coverage of lower leaves and surrounding soil surface. Incorporation with light irrigation after application may improve disease control. Repeat at 10-14 day intervals if conditions promoting disease persist.
	"Damping off," seedling blights, and root or crown diseases caused by <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Fusarium</i> , <i>Phytophthora</i> , or <i>Verticillium</i> † spp.	See instructions for "Soil application." † Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
Cereal Grains** such as barley, millet, oats, rice, rye, sorghum, triticale, wheat, and other cereal grain crops (including those grown for seed).	Powdery mildew (Erysiphe graminis) Rust (Puccinia spp.)† Rice blast (Pyricularia oryzae) Sheath spot/blight (Rhizoctonia and Thanatephorus spp.) Smut (Tilletia barclayana) Bacterial blight/streak (Xanthomonas spp.) Stem rots (Magnaporthe and Sclerotium spp.) Cercospora leaf spot Brown rot/leaf spots/smuts (Ceratobasidium, Cochliobolus, Dreschlera, and Entyloma spp.)	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use.  ** Not for use in California.
Oilseed Crops** such as canola, castor, coconut, cotton, flax, oil palm, olive, peanut, rapeseed, safflower, sesame, sunflower, soybeans, and other oilseed crops, including those grown for seed production.	White mold/Stem rot (Sclerotinia sclerotiorum)  Rusts†, including Uromyces appendiculatus, Puccinia spp., and Asian soybean rust (Phayospora pachyrhizi)  Bacterial Speck (Pseudomonas syringae pv.glycinea)  Bacterial Pustule (Xanthamonas spp.)  Brown Spot (Septoria glycines)  Cercospora Leaf Spot  Pod and Stem Blights (Diaporthe and Phomopsis spp.)  Downy Mildew (Peronospora mansherica)	† Suppression only. For improved control, mix or rotate with chemical fungicide approved for such use ** Not for use in California.
Mint	Rust (Puccinia spp.)	
Hops	Powdery mildew (Sphaerotheca macularis)	Mix 0.5-1 lb. CX-9030 per 100 gallons of water and apply in minimum of 20 gallons per acre from emergence to training, 50 gallons per acre from training to wire, and 100 gallons per acre from wire touch through harvest.
Sugar Beets** including crops grown for seed production	Leaf spots ( <i>Cercospora</i> and <i>Ramularia</i> spp.) Powdery mildew ( <i>Erysiphe</i> spp.) Rust ( <i>Uromyces betae</i> )	** Not for use in California.

CROPS	DISEASES/PATHOGENS	ADDITIONAL INFORMATION
Нетр	Anthracnose (Colletotrichum spp.) Brown blight (Alternaria alternata) Brown leaf spot and stem canker (Ascochyta spp.) Gray mold (Botrytis cinerea) Hemp leaf spot (Bipolaris sp.) Powdery mildew (Leveillula and Sphaerotheca spp.) White leaf spot (Phomopsis ganjae) Yellow leaf spot (Septoria spp.) Olive leaf spot (Cercospora cannabis) Stemphylium leaf and stem spot (Stemphylium botryosum) Bacterial blight (Pseudomonas cannabina) Xanthomonas leaf spot (Xanthomonas campestris)	ADDITIONAL INFORMATION
	"Damping off," seedling blights, and root or crown diseases caused by Pythium, Rhizoctonia, Fusarium, Phytophthora, Botrytis, Verticillium spp.  Charcoal rot (Macrophomina phaseolina) Fusarium wilt, foot rot, stem canker (Fusarium spp.) Hemp canker (Sclerotinia sclerotiorum) Southern blight/southern stem blight (Sclerotium rolfsii) Verticillium wilt (Verticillium spp.)	See instructions "Soil application."

#### **APPLICATION INSTRUCTIONS:**

<u>For root diseases</u>: Apply **0.5 to 1 pound** of CX-9030 per acre as a banded soil spray or drench, or as chemigated injection via microsprinkler, drip (elevated, buried or ground-lay) or other irrigation systems. Apply in sufficient water or irrigate immediately after application to move the product to the root zone. Begin applications in early spring, timed for root flush and early shoot growth. Continue applications at 4-6 week intervals through fall root flush.

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*For collar rots*: Apply as drench or spray at the base of the trunk, covering the soil contact zone.

Foliar application: For control of diseases on foliage, flowers, fruit, or other above-ground parts of plants: Mix CX-9030 in water and apply as a spray at a rate of **0.25 to 3 pounds per acre** in sufficient water to achieve thorough coverage of the crop canopy with minimal runoff. Begin applications at crop emergence, transplanting, or when conditions are conducive to development of disease. Apply every 7 to 10 days as needed, for as long as conditions favor disease development. Lower rates (0.25 to 1 pound per acre) may be applied under light disease pressure, to smaller (e.g. newly-emerged) plants, or when CX-9030 is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (1 to 3 pounds per acre), apply more frequently (every 3 to 7 days), and mix or rotate CX-9030 with other fungicides for improved performance.

<u>Soil application</u>: For control of soil-borne diseases infecting seeds, seedlings, roots, crown, stems, or other plant parts below ground or in contact with soil: Apply CX-9030 at **0.125 to 1 pound per acre**. Mix the required amount in sufficient water to apply by one of the following methods:

- Soil drench applied to transplants in flats or pots in the greenhouse or nursery any time prior to transplanting (see additional drench instructions under "Nurseries, greenhouses, shade houses, and ornamental plants" below).
- Soil drench at transplanting, using a "water wheel" injector, spray nozzles/hoses, or other method to drench each root ball and/or planting hole.
- Soil or seedline drench, or banded spray (in-furrow) at planting. See the section on "Banded (in-furrow) application" below for additional instructions.

Follow-up (post-planting) preventative applications can be made every 2-4 weeks by one or more of the following methods, if needed:

- Drip (trickle) or any type of sprinkler irrigation, any time after planting or transplanting. See Chemigation Instructions for additional information.
- Spray directly onto the soil surface and/or lower plant parts. If targeting root disease, follow immediately with sufficient overhead sprinkler irrigation to move CX-9030 to the root zone.
- Injection directly into the rooting zone using shanks or similar equipment.

Lower rates (0.125 to 0.5 pounds per acre) may be applied under light disease pressure, to smaller plants, or when CX-9030 is used in a tank mix with other fungicides whose labels allow such use. Under moderate to severe disease pressure, or when environmental conditions and plant stage are conducive to rapid disease development, use higher label rates (0.5 to 1 pound per acre), apply more frequently (every 2 weeks), and mix or rotate CX-9030 with other fungicides for improved performance.

assistance calibrating band spraying equipment.

<u>Banded (in-furrow) application</u>: Use the table below to determine the correct application rate of CX-9030 per 1,000 row feet, based on row spacing and desired rate per acre. Mix the required amount of CX-9030 in water and apply as banded spray (4" to 6" wide) or seedline drench centered over the planting furrow. Apply directly over seeds in the furrow just before they are covered with soil. The volume of water required per acre or per 1,000 row feet will depend on the application equipment used. Consult your local cooperative extension service if you need

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Rates for banded (in-furrow) application: Find desired application rate in the left column. Read across that line to the correct row spacing indicated at the top to find the number of ounces (dry) per 1,000 row feet that will provide the desired application rate per acre. To convert to level teaspoons, multiply the number of ounces by 8.2. For level tablespoons, multiply the number of ounces by 2.75.

Rate/acre	Space between rows (inches)														
(pounds)	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
0.25	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
0.5	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
0.75	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9
1.0	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.2	1.2
1.25	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.5
1.5	0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.8
1.75	0.6	0.7	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1
2.0	0.7	0.9	1.0	1.1	1.2	1.3	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.3	2.4
2.25	0.8	1.0	1.1	1.2	1.4	1.5	1.7	1.8	1.9	2.1	2.2	2.3	2.5	2.6	2.8
2.5	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.8	2.9	3.1
2.75	1.0	1.2	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.7	2.9	3.0	3.2	3.4
3.0	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.7

#### Nurseries, greenhouses, shadehouses, and ornamental plants:

<u>Spray application</u>: Mix **0.25 to 3 pounds of CX-9030 per 100 gallons of water** and apply as a foliar spray of sufficient volume to wet the entire plant with minimal runoff. Begin preventative applications at plant emergence and repeat every 3-28 days as needed (every 3-7 days if disease pressure is high or environmental conditions are highly favorable to disease outbreak, 10-28 days under low pressure or less conducive conditions).

<u>Drench application</u>: Mix **0.125 to 2 pounds of CX-9030 per 100 gallons of water** and apply as a drench or coarse spray to soil or other growing media in pots, flats, plugs, trays, or planting beds, for control or suppression of soil-borne diseases of seedlings, cuttings, bedding plants, and transplants (including vegetables and other transplanted food crops). Make first application at or immediately before seeding, sticking, germination, or transplanting. Repeat applications every 14-28 days as needed. Transplants can be treated immediately before transplanting into field soils to protect against damping-off and other diseases that reduce plant establishment.

<u>Cutting or root dip</u>: Dip basal end of cuttings or bare roots (individually or in bunches) in a suspension of 1 to 2 pounds of CX-9030 per gallon of water. Immerse for 5-10 seconds immediately before planting.

<u>Chemigation</u>: Mix **0.125 to 2 pounds of CX-9030 per 100 gallons of water** and apply via drip, handheld, or sprinkler irrigation systems. Refer to "Chemigation Instructions" for more details.

CROPS/USE SITES	DISEASES/PATHOGENS
Indoor, outdoor, and shade- or other cover-grown ornamental trees and shrubs, flowering plants, foliage plants, tropical plants, potted plants, potted or cut flowers, bedding plants, forestry seedlings, conifer production for reforestation, fruit trees, vegetables and other crops grown in greenhouses or nurseries, or other cover, interiorscapes, and landscapes	Powdery mildews caused by Erisyphe, Podosphaera, Sphaerotheca, Oidium, and Golovinomyces spp.)  Anthracnose (Colletotrichum spp.)  Bacterial leaf spots caused by Erwinia, Pseudomonas, and Xanthomonas spp.  Damping-off disease (Rhizoctonia, Pythium, Fusarium spp.)  Late blight, blackeye, and root rots caused by Phytophthora spp.  Gray mold and blight caused by Botrytis cinerea  Black root rot (Aspergillus spp.)  Black spot of roses (Diplocarpon rosae)  Downy mildew (Peronospora spp.)  Leaf spots caused by Alternaria, Septoria, Cercospora, Entomosporium, Helminthosporium, and Myrothecium spp.)  Rust (Puccinia spp.)  Scab (Venturia spp.)  Root rot, bottom rot, or stem rot caused by Rhizoctonia solani Sclerotinia blight  Fusarium wilts

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**Turfgrass application:** For control of foliar diseases, apply CX-9030 at **0.5 to 1 ounce per 1,000 square feet** as a ground-directed spray in sufficient water to provide thorough coverage. To control root and crown diseases in or on the soil, immediately follow the spray with sufficient overhead sprinkler irrigation to move the product into the root zone.

USE SITES/CROPS	DISEASES/PATHOGENS
Turf, sod, lawns, golf course (fairways, roughs, greens, tees), grass seed production Including but not limited to: Bluegrass, Bentgrass, Bermudagrass (common & hybrid), Dichondra, Fescue, Orchardgrass, <i>Poa annua</i> , St. Augustine grass, Ryegrass, <i>Zoysia</i> , mixtures, and other grasses or ornamental turf	Anthracnose (Colletotrichum graminicola) Brown patch (Rhizoctonia solani) Dollar spot (Lanzia and Moellerodiscus spp., formerly Sclerotinia homeocarpa) Powdery mildew (Erisyphe graminis) Rust (Puccinia spp.) Gray leaf spot (Pyricularia grisea) "Damping off" or seedling blights caused by Pythium

#### STORAGE AND DISPOSAL

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

*Pesticide Storage*: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

*Pesticide Disposal*: Wastes resulting from the use of this product must be disposed of onsite or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### **CHEMIGATION INSTRUCTIONS**

#### **General Information:**

1. Apply this product only through drip (trickle) irrigation (including micro-irrigation through spaghetti tubes or individual tubes) or sprinkler irrigation (including impact or microsprinklers, overhead boom, solid set, lateral move, end tow, side-roll, center pivot, or hand move, including mist-type systems); or with hand-held calibrated irrigation equipment (such as a hand-held wand with injector). Do not apply this product through any other type of irrigation system.

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- 2. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- 3. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.
- 4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 5. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### **Public water system chemigation**

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

- 1. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.
- 3. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 5. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 6. Do not apply when wind speed favors drift beyond the area intended for treatment.

7. Remove scale, pesticide residues, and other foreign matter from the chemical supply tank and injector system and flush with clean water before use. Failure to provide a clean tank, free of scale or residues may reduce effectiveness of this product.

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8. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Application should be continuous in sufficient water to apply the specified rate evenly to the entire treated area.

#### **Drip (Trickle) and Micro-irrigation Chemigation:**

- 1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer, or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.

#### **Sprinkler Chemigation:**

- 1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

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- 6. Systems must use a metering pump, such as a positive displacement injection pump (i.e., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Dilute the product in water following the label mixing directions. It may be premixed in a supply tank with water, fertilizer or other appropriate tank-mixed agricultural chemicals. Agitation is necessary. Apply to moderately moist soils. Use volumes that thoroughly wet the soil but that do not cause significant runoff or excessive drip from pots. Application should be continuous in sufficient water to apply the recommended rate evenly to the entire treated area.
- 8. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### WARRANTY

Certis USA LLC warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purpose referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the disease problem, condition of the crop, incompatibility with other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage, or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

MASTER LABEL CX-9030 EPA Reg. No. 70051-108

{List of Alternate Brand Names:}

Double Nickel 55®

 $\text{Amylo-}X \\ \mathbb{R}$ 

Bacstar®

Amylo-X® WG

Double Nickel® 55 WG

Amylo-X® 25 WG Bacstar 25® WG

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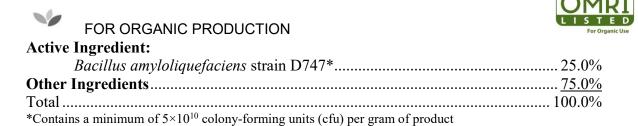
# MASTER LABEL SUBLABEL B: Seed Treatment

CX-9030

#### BIOFUNGICIDE

{Alternate Brand Names: See Last Page for List of ABNs}

#### Water Dispersible Granular Biofungicide



### KEEP OUT OF REACH OF CHILDREN

### **CAUTION**

#### **FIRST AID**

*IF IN EYES:* Hold eyes 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.

#### Hotline Number

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Hot Line No.:1-800-255-3924 for emergency information.

#### **MANUFACTURED BY:**

Certis USA LLC 9145 Guilford Road, Suite 175 Columbia, MD 21046 EPA Reg. No. 70051-108 EPA Est. No. 70051-CA-1

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Lot Number: Net Weight:



## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

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**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Workers involved with treating the seed (e.g. connecting and disconnecting hoses and transfer pumps, mixing, equipment calibration, etc.) and others exposed to the concentrate, and cleaners/repairers of seed treatment equipment must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- NIOSH-approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Baggers and bag sewers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- NIOSH-approved particulate respirator with any N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

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

#### **Engineering Controls:**

When handlers use closed systems or enclosed cabs, in a manner that meets requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.607 (d) and (e)), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Remove clothing/PPE immediately if pesticides get inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from treated areas.

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#### PRODUCT INFORMATION

CX-9030 is a biological fungicide for seed treatment that provides early season protection of seedlings against "damping off" disease caused by *Rhizoctonia* and other pathogens. Seed should be sound and well-cured before treatment. Do not use CX-9030 in combination with other seed treatment products unless compatibility has been verified. Read and follow carefully all label directions of each combination product. When using combinations of products, the most restrictive of label limitations and precautions must be followed.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation. 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 only in accordance with its labeling and with the Worker Protection Standard 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

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

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

#### 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. Keep unprotected persons out of treated areas until sprays have dried.

#### **Seed Treatment Equipment:**

CX-9030 may be used both for commercial and for on-farm application. It can be applied with mechanical, slurry, or mist-type seed treating equipment, as long as the equipment can be calibrated to accurately and uniformly apply the product to seed without undue mechanical damage to the seed. Uniform application to seed is important for all seed treatment products.

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Seed should be sound and well-cured before treatment. Refer to the label rates below. CX-9030 is typically diluted with water and/or mixed with other products to attain an appropriate slurry application volume per hundredweight (cwt., or 100 pounds) of seed (fl.oz./cwt. slurry rates) to provide effective treating. The appropriate volume of slurry depends on crop, weather, type of treater and other factors and should be adjusted as per normal treating practices for the circumstances. Contact your local supplier or distributor representative for specific recommendations.

CX-9030 plus water and/or other treatments should be mixed thoroughly prior to treating seed. Recalibrate treating equipment to compensate for the required slurry rate to ensure all products are applied at the correct rate.

### **APPLICATION INSTRUCTIONS**

Crop(s)	Application Rate
Wheat, barley, oats, rye and triticale	0.015-0.3 fl.oz/cwt
Millet, sorghum	0.15-3 fl.oz/cwt
Rice	0.015-0.3 fl.oz/cwt
Field Corn, Sweet Corn, Popcorn	0.04-0.4 fl.oz/seed unit (80,000 kernels) (Equivalent to 0.09-0.90 fl.oz/cwt at a seed weight of 1,800 seeds/pound)
Soybeans	0.07-0.7 fl.oz/seed unit (140,000 seeds) Equivalent to 0.15- 1.5 fl.oz/cwt at a seed weight 2,979 seeds per pound.
Peanuts	0.01-0.3 fl.oz/cwt
Canola	0.5-12 fl.oz/cwt
Cotton	0.01-0.3 fl.oz/cwt
Sunflowers, safflower	0.01-0.3 fl.oz/cwt
Grass Seed: For turf, sod, lawns, golf course (fairways, roughs, greens, tees), and grass seed production including: Bluegrass, Bentgrass, Bermudagrass (common & hybrid), Dichondra, Fescue, Orchardgrass, Poa annua, St. Augustine grass, Ryegrass, Zoysia, mixtures, and other grasses or ornamental turf seed	0.15-3 fl.oz/cwt

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Crop(s)	Application Rate
Brassica Leafy Vegetables:  Broccoli (Brassica oleracea var. botrytis); Broccoli, Chinese (gai lon) (Brassica alboglabra); Broccoli raab (rapini) (Brassica campestris); Brussels sprouts (Brassica oleracea var. gemmifera); Cabbage (Brassica oleracea); Cabbage, Chinese (bok choy) (Brassica chinensis); Cabbage, Chinese (napa) (Brassica pekinensis); Cabbage, Chinese mustard (gai choy) (Brassica campestris); Cauliflower (Brassica oleracea var. botrytis); Cavalo broccolo (Brassica oleracea var. botrytis); Collards (Brassica oleracea var. acephala); Kale (Brassica oleracea var. acephala); Kohlrabi (Brassica oleracea var. gongylodes); Mizuna (Brassica rapa Japonica Group); Mustard greens (Brassica juncea); Mustard spinach (Brassica rapa Perviridis Group); Rape greens (Brassica napus)	0.01-0.4 fl.oz per 100,000 seeds
Bulb Vegetables:  Chive, fresh leaves (Allium schoenoprasum L.); Chive, Chinese, fresh leaves (Allium tuberosum Rottler ex Spreng); Daylily, bulb (Hemerocallis fulva (L.) L. var. fulva); Elegans hosta (Hosta Sieboldiana (Hook.) Engl); Fritillaria, bulb (Fritillaria L. fritillary); Fritillaria, leaves (Fritillaria L. fritillary); Garlic, bulb (Allium sativum L. var. sativum) (A. sativum Common Garlic Group); Garlic, great headed, bulb (Allium ampeloprasum L. var. ampeloprasum) (A. ampeloprasum Great Headed Garlic Group); Garlic, Serpent, bulb (Allium sativum var. ophioscorodon or A. sativum Ophioscorodon Group); Kurrat (Allium kurrat Schweinf. Ex. K. Krause or A. ampeloprasum Kurrat Group); Lady's leek (Allium cernuum Roth); Leek Allium porrum L. (syn: A. ampeloprasum L. var. porrum (L.) J. Gay) (A.ampeloprasum Leek Group); Leek, wild (Allium tricoccum Aiton); Lily, bulb (Lilium spp. (Lilium Leichtlinii var. maximowiczii, Lilium lancifolium)); Onion, Beltsville bunching (Allium x proliferum (Moench) Schrad.) (syn: Allium fistulosum L. x A. cepa L.); Onion, bulb (Allium cepa L. var. cepa) (A. cepa Common Onion Group); Onion, Chinese, bulb (Allium chinense G. Don.) (syn: A. bakeri Regel); Onion, fresh (Allium fistulosum L. var. caespitosum Makino); Onion, green (Allium cepa L. var. cepa) (A. cepa Common Onion Group); Onion, macrostem (Allium macrostemom Bunge); Onion, pearl (Allium porrum var. sectivum or A. ampeloprasum Pearl Onion Group); Onion, potato, bulb (Allium cepa L. var. aggregatum G. Don.) (A. cepa Aggregatum Group); Onion, Welsh, tops (Allium fistulosum L.); Shallot, bulb (Allium cepa var. aggregatum G. Don.)	0.01-0.4 fl.oz per 100,000 seeds

Crop(s)	Application Rate
Cucurbit Vegetables: Chayote (fruit) (Sechium edule); Chinese waxgourd (Chinese preserving melon) (Benincasa hispida); Citron melon (Citrullus lanatus var. citroides); Cucumber (Cucumis sativus); Gherkin (Cucumis anguria); Gourd, edible (Lagenaria spp.) (includes hyotan, cucuzza); (Luffa acutangula, L. cylindrica) (includes hechima, Chinese okra); Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskmelon (hybrids and/or cultivars of Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); Pumpkin (Cucurbita spp.); Squash, summer (Cucurbita pepo var. melopepo) (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Squash, winter (Cucurbita maxima; C. moschata) (includes butternut squash, calabaza, hubbard squash); (C. mixta; C. pepo) (includes acorn squash, spaghetti squash); Watermelon (includes hybrids and/or varieties of Citrullus lanatus)	0.01-0.4 fl.oz per 100,000 seeds
Fruiting Vegetables:  Eggplant (Solanum melongena); Groundcherry (Physalis spp.); Pepino (Solanum muricatum); Pepper (Capsicum spp.) (includes bell pepper,; chili pepper, cooking pepper, pimento,; sweet pepper); Tomatillo (Physalis ixocarpa); Tomato (Lycopersicon esculentum)	0.01-0.4 fl.oz per 100,000 seeds
Leafy Vegetables (Excluding Brassicas):  Amaranth (leafy amaranth, Chinese spinach, tampala) (Amaranthus spp.); Arugula (Roquette) (Eruca sativa); Cardoon (Cynara cardunculus); Celery (Apium graveolens var. dulce); Celery, Chinese (Apium graveolens var. secalinum); Celtuce (Lactuca sativa var. angustana); Chervil (Anthriscus cerefolium); Chrysanthemum, edible-leaved (Chrysanthemum coronarium var. coronarium); Chrysanthemum, garland (Chrysanthemum coronarium var. spatiosum); Corn salad (Valerianella locusta); Cress, garden (Lepidium sativum); Cress, upland (yellow rocket, winter cress) (Barbarea vulgaris); Dandelion (Taraxacum officinale); Dock (sorrel) (Rumex spp.); Endive (escarole) (Cichorium endivia); Fennel, Florence (finochio) (Foeniculum vulgare Azoricum Group); Lettuce, head and leaf (Lactuca sativa); Orach (Atriplex hortensis); Parsley (Petroselinum crispum); Purslane, garden (Portulaca oleracea); Purslane, winter (Montia perfoliata); Radicchio (red chicory) (Cichorium intybus); Rhubarb (Rheum rhabarbarum); Spinach (Spinacia oleracea); Spinach, New Zealand (Tetragonia tetragonioides, T. expansa); Spinach, vine (Malabar spinach, Indian spinach) (Basella alba); Swiss chard (Beta vulgaris var. cicla)	0.01-0.4 fl.oz per 100,000 seeds

Legume Vegetables (Dry and Succulent):  Bean (Lupinus spp.) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); Bean (Phaseolus spp.) (includes field bean, kidney bean,	Crop(s)	Application Rate
bean); Bean (Vigna spp.) (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); Broad bean (fava bean) (Vicia faba); Chickpea (garbanzo bean) (Cicer arietinum); Guar (Cyamopsis tetragonoloba); Jackbean (Canavalia ensiformis); Lablab bean (hyacinth bean) (Lablab purpureus); Lentil (Lens esculenta); Pea (Pisum spp.) (includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea); Pigeon pea (Cajanus cajan); Soybean	Legume Vegetables (Dry and Succulent):  Bean (Lupinus spp.) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); Bean (Phaseolus spp.) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); Bean (Vigna spp.) (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); Broad bean (fava bean) (Vicia faba); Chickpea (garbanzo bean) (Cicer arietinum); Guar (Cyamopsis tetragonoloba); Jackbean (Canavalia ensiformis); Lablab bean (hyacinth bean) (Lablab purpureus); Lentil (Lens esculenta); Pea (Pisum spp.) (includes dwarf pea, edible-pod pea, English pea, field pea, garden pea,	

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Use higher rates when there is a history of heavy *Rhizoctonia* pressure in the field or for higher levels of protection.

#### TREATED SEED LABELING

Seed that has been treated with this product that is then packaged or bagged for future use must contain the following labeling on the outside of the seed package or bag:

"This bag contains seed treated with *Bacillus amyloliquefaciens* strain D747. Do not use for Food, Feed, or Oil Purposes. Store away from feed and food stuffs. Wear long pants, long-sleeved shirt, and protective gloves when handling treated seed."

#### **USE RESTRICTIONS**

Do not use treated seed for food, feed or oil purposes. Care must be exercised in the handling of treated seed. Augers used for handling treated seed should not be used to move seed for feed, food or oil processing. Do not re-use bags from treated seed to handle food or feed products.

Treatment of mechanically damaged seed or seed of low vigor or poor quality may result in reduced germination. Treat and conduct germination tests on a small test sample of seed before using this product on commercial quantities. Due to seed quality and seed storage conditions beyond the control of Certis USA LLC, Certis USA LLC makes no claims or guarantees as to germination of carry-over seed.

**NOTE:** The purchaser of this product is responsible for ensuring that all seed treated with this product are adequately dyed with a suitable color to prevent its accidental use as food for man or feed for animals. Refer to 21 CFR Part 2.25. Any dye or colorant added to treated seed must be cleared for use under 40 CFR Part 180. Alternatively, use in combination with other colored seed treatment products may provide adequate coloration.

TO ENSURE UNIFORMITY, MIX PRODUCT WELL BEFORE USE

#### **STORAGE AND DISPOSAL**

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

*Pesticide Storage*: Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

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*Pesticide Disposal*: Wastes resulting from the use of this product must be disposed of onsite or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### **WARRANTY**

Certis USA LLC warrants that the material contained herein conforms to the description on the label and is reasonably fit for the purposes referred to in the directions for use. Timing and method of application, weather, watering practices, nature of soil, the insect problem, condition of the crop, incompatibility with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herein. NO OTHER EXPRESS OR IMPLIED WARRANTY OF THE FITNESS OR MERCHANTABILITY IS MADE.

MASTER LABEL CX-9030 EPA Reg. No. 70051-108

{List of Alternate Brand Names:}

Double Nickel 55®

 $\text{Amylo-}X \\ \mathbb{R}$ 

Bacstar®

Amylo-X® WG

Double Nickel® 55 WG

Amylo-X® 25 WG Bacstar 25® WG

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