## Fungicides, Bactericides, and Nematicides

Note: Not all chemicals listed are recommended or currently registered for use. See listings for individual crops for recommended uses.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Abound	azoxystrobin	B, F, Ls, P	11	Effective against a large number of fungi including powdery and downy mildews. Severe phytotoxicity on apples with a McIntosh heritage.
Absolute	tebuconazole + trifloxystrobin	B, C, F, Ls, P	3 + 11	For rust and powdery mildew control in grasses grown for seed in the PNW.
Academy	fludioxonil + difenoconazole	B-N, F, P	12 + 3	Postharvest fungicide.
Accrue	spiroxamine	F, N, P	5	Discontinued.
Actigard, Blockade (Heritage Action)	acibenzolar-S-methyl	A	P1	Labeled for certain vegetable crops and fruit.
Acquire	metalaxyl	Fs, N, P, S	4	For seed treatment to control ooymcetes in specified row crops and vegetables.
Acrobat	dimethomorph	F, P	40	Discontinued.
Acrobat MZ	dimethomorph + mancozeb	F, P	40 + M3	Discontinued.
Acti-dione	cycloheximide	F		Discontinued. Antibiotic and fungicide.
Actigard	acibenzolar-S-methyl	A	P1	Labeled for certain vegetable crops and fire blight of fruit.
Actino-Iron	Streptomyces lydicus	F, P	BM02	Discontinued.
Actinovate	Streptomyces lydicus	F	BM02	Filamentous bacteria as a biological control agent. O
Adament	tebuconazole + trifloxystrobin	B, C, F, Ls, P	3 + 11	Discontinued.
Adorn	fluopicolide	F, N, P	43	Ornamental label for control of oomycetes. Must be tank- mixed with another fungicide.
Affirm	Polyoxin D zinc salt	F	19	Discontinued.
Aframe	azoxystrobin	B-N, C, F, Ls, P	11	Another generic fungicide for many diseases.
Aframe Plus	azoxystrobin + propiconazole	B-N, C, F, Ls, P	3 + 11	Generic combination product for many diseases.
Agclor	sodium hypochlorite	B, Bact, E, F		Used as postharvest dip. Many fruits and vegetables on label.
Agri-Fos	phosphorous acid	A, Fs, N, P, S	P7	Active against oomycete fungal-like organisms.
Agri-Mycin	streptomycin	Bact, P	25	Antibiotic to control a number of commercially important bacterial plant pathogens including fire blight.
Agri-Strep	streptomycin			Discontinued name.
Alamo	propiconazole	B-N, C, F, Ls, P	3	Trunk injection for diseases such as Dutch elm disease.
Aldesan Microbiocide	formaldehyde	B, D, F		Used on ornamental bulb crops for nematode and Sclerotium management.
aldicarb	Temik	I, Nem, S		Discontinued.
Aliette	aluminum tris	A, Fs, N, P, S	Р7	Used against oomycete fungal-like microorganisms; also some low bactericidal activity. Very acidic, so incompatible with copper products.
AllBan	thiophanate-methyl	B, F, P, S	1	Discontinued.
Allegiance	metalaxyl	Fs, N, P, S	4	Seed treatment to control damping-off caused by oomycetes.
Allisan	(DCNA) dichloran	F, N, P	14	Discontinued.

\*\* Not Classified H=Homeowner packaging commonly available O=Acceptable in organic production

\*Action

A = Activator of plant defense Ar = Acaricide - substance poisonous to mites or ticks B = Broad-spectrum activity Bact = Bactericidal
B-N = Broad to narrow
spectrum of activity
C = Curative
D = Disinfectant

E = Eradicant F = Fungicidal Fs = Fungistatic Fum = Fumigant I = Insecticidal

Ls = Locally systemic N = Narrow-spectrum activity Nem = Nematicide P = Protection S = Systemic V = Vapor active ? = Unknown

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
allyl isothiocyanate	Dominus	B, F, Fum, Nem	?	Broad spectrum pre-plant soil biofumigant for the control of certain soil borne fungi, nematodes, weeds, and insects in high-value crops.
Amplitude ST	Bacillus amyloliquefaciens strain F727	F, P	BM02	Broad spectrum biological for bulb vegetables, legumes, root, and row crops. O
Alto	cyproconazole	B, F, P	3	Broad-spectrum fungicide for cereals and soybean.
Alude	phosphorous acid	A, Fs, N, P, S	P7	Discontinued
aluminum tris	Areca, Aliette	A, Fs, N, P, S	P7	Useful for oomycetes and very acidic.
ametoctradin	(Zampro, Orvego)	F, P	45	A new class of fungicides, the pyrimidylamines, with activity against oomycetes.
Amistar	azoxystrobin	B, F, Ls, P	11	Discontinued
Anchor	oxadixyl	Fs, N, S		Discontinued.
anilazine	Dyrene			Voluntarily discontinued.
Apogee	prohexadione calcium	Growth regulator		Labeled for Apple to slow down or minimize shoot growth and thus susceptibility to fire blight.
Appear	potassium phosphite	A, Fs, N, P, S	P7	Label for oomycetes on turf and golf courses.
Aproach	picoxystrobin	B, F, Ls, P	11	For control of a range of foliar pathogens in field and nut crops
Apron	metalaxyl	N, P, S		Discontinued.
Apron XL	mefenoxam	Fs, P, S	4	The biologically active R-enantiomer of metalaxyl.
Aprovia	benzovindiflupyr (solatenol)	B-N, F, Ls, P	7	Fruit label for this third generation group 7 material.
Aprovia Top	difenoconazole + benzovindiflupyr	B, F, P	7 + 3	Broad-spectrum fungicide for fruit as well as certain vegetables and field crops.
AQ10	Ampelomyces quisqualis	E, F	NC	Discontinued.
Arasan	thiram			Discontinued name.
Arbor-OTC	oxytetracycline	Bact, P	41	Antibiotic for injection into trees.
ArborFos	phosphorous acid	A, Fs, N, P, S	P7	Tree injected material for use mostly against sudden oak death.
Arbotect	thiabendazole	B, C, F, Ls	1	Trunk injection for diseases such as Dutch elm disease.
Areca	aluminum tris	A, Fs, N, P, S	P7	Generic label for ornamentals.
Armada	triadimefon + trifloxystrobin	B-N, C, F, Ls, P	3 + 11	Combination for turf and ornamentals.
Armicarb	potassium bicarbonate	E, F	NC	Discontinued
Asperello	Trichoderma asperellum strain T34	F, P	BM02	Biofungicide for use in on a broad range of plants for many pathogens.
Aspire	Candida oleophila	P	NC	Discontinued.
Astun	isofetamid	F, P	7	For use on ornamentals grown in greenhouses and nurseries. Active on <i>Botrytis</i> and powdery mildews.
Auragreen	basic cupric carbonate	F		Discontinued name.
Autilus	pentachloronitrobenzene (PCNB)	B, F, P	14	Turf fungicide.
Auxigro	gamma aminobutyric acidnd L- Glutamic acid	A	NC	No registrations
Avelyo	mefentrifluconazole	B-N, C, F, Ls, P	3	Ornamental label for flexible molecule that helps with cross-resistance management within this FRAC 3 group.
Aviv	Bacillus subtilis strain IAB/BS0	A, B-N, F	BM02	Biological. O
azadirachtin	Ecozin	Nem	NC	Botanical insecticide. Interferes with juvenile growth and repels adult nematodes and a wide range of insects.
azoxystrobin	Abound, Heritage, Quadris Amistar, Dynasty (QuiltXcel, Ridomil Gold, Quadris Top, Uniform, Topguard EQ)	B, F, Ls, P	11	Effective against a large number of fungi including powdery and downy mildews. Severe phototoxcity on apples with a McIntosh heritage.
Bac-Master	streptomycin	Bact, P	25	Discontinued name.
Badge	copper oxychloride + copper hydroxide	B, Bact, F	M1	Registered on many crops.
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Ballad Plus	Bacillus pumilus strain QST 2808	Bact, F, P	BM02	Broad-spectrum biocontrol formulation for vegetable and field crops. O
Banner MAXX	propiconazole	B-N, C, F, Ls, P	3	Ornamental label.
Banol	propamocarb	F, N	28	Ornamental fungicide for use against oomycetes.
Banrot	etridiazole + thiophanate-methyl	B-N, F, P	14 & 1	Controls many soilborne fungal diseases.
Basamid	dazomet	F, Fum, Nem, V		Restricted use. Soil fumigant. Reacts with water to form fumigant.
Bayer Advanced Disease Control	tebuconazole	B-N, C, F, Ls, P	3	Discontinued.
Bayer Advanced Natria Disease Control	Bacillus subtilis strain QST 713	F, P	BM02	Discontinued.
Bayleton	triadimefon	B-N, C, F, Ls, P	3	Discontinued.
Baytan	triadimenol	F, S	3	Discontinued.
Benefit	iprodione + thiophanate-methyl	B, F, P, S		Discontinued.
Benlate	benomyl	B, C, F, Ls	1	<b>Discontinued</b> , was a popular benzamidazole with wide activity but narrow mode of action against fungal beta tublin gene. Result: wide-spread, stable populations of resistant fungi. Ornamental uses pulled in the mid-1990s. Not manufactured after 2001.
benomyl	Benlate, Tersan 1991	B, C, F, Ls	1	<b>Discontinued</b> . Controlled a wide range of fungal diseases. Resistance wide-spread and stable.
benzovindiflupyr (solatenol)	Aprovia (Aprovia Top, Elatus, Mural)	B, F, P	7	A fungicide belonging to the SDH-inhibitor group with an effect on a broad range of fungi.
Bexfond	Bacillus amyloliquefaciens subspecies plantarum strain FZB42	F, P	BM02	Biocontrol labeled for a range of crops. O
Bi-Carb Old Fashioned Fungicide	potassium bicarbonate	E, F	NC	One of several home labels for this active ingredient. H
BioAdvanced Disease Control	tebuconazole	B-N, C, F, Ls, P	3	Home label that was named Bayer Advanced.
BioAdvanced Fungus Control for Lawns	propiconazole	B-N, C, F, Ls, P	3	Home label for RTU product
BioSpectra	natamycin	B, P, F	48	Fermentation product of <i>Streptomyces</i> spp. Active against fungi but nontoxic to humans. Unstable in UV light.
Bio-Save	Pseudomonas syringae	Р	BM02	Bio-Save 11 LP is <b>Discontinued</b> . Bio-Save 10 LP is labeled for potato and tree fruits.
Bio-Tam	Trichoderma asperellum + T. gamsii	F, P	BM02	For control of soilborne pathogens in various fruits, nuts, vegetables, and field crops. O
Bio-Trek	Trichoderma harzianum	F, P	NC	Discontinued name, see RootShield.
BLAD	Fracture, Problad, Regime	F	BM01	A naturally occurring seed storage protein in sweet lupines. Effective on brown rot but not so much on powdery mildew.
BlightBan	Pseudomonas fluorescens	P	BM02	Discontinued.
B-Lock	boric acid	P	NC	Paint for protection of pruning wounds.
Blockade	acibenzolar-S-methyl	A	P1	Control of downy mildew in leafy vegetables.
Blocker 4F	pentachloronitrobenzene (PCNB)	F, P	14	Registered for soilborne diseases of vegetable and field crops.
Bloomtime	Pantoea agglomerans strain E325	P	NC	Discontinued.
Blossom Protect	Aureobasidium pullulans	F, P	NC	Biological for fire blight management. O
Bonide Revitalize Biofungicide	Bacillus amyloliquefaciens strain D747	A, F, P,	BM02	Discontinued name.
borax	Prev-Am, Sporax	P	NC	Best use is as a wound treatment for a few fungi. Individual labels differ widely.
bordeaux	copper sulfate + hydrated lime	B, Bact, F, P	M1	Still an excellent dormant-season fungicide for the Willamette Valley of Oregon because it is rain-fast when sprayed on plants. Difficult to mix and apply compared to modern fungicides.

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boscalid	Endura, (Pristine, Honor, Pagent) Emerald	F, P	7	For control of potato and tomato early blight and <i>Sclerotinia</i> , <i>Alternaria</i> , <i>Monilinia</i> and <i>Botrytis</i> . Also has activity on powdery mildew.
Botector	Aureobasidium pullans strains DSM 14940 and 14941	F, N, P	NC	Yeast that protects blossoms from <i>Botrytis</i> and brown rot pathogens. Variable efficacy so far. O
Botran	(DCNA) dichloran	F, P	14	Labeled for use during the growing season on several crops. Active against <i>Mucor</i> , <i>Rizopus</i> , and <i>Penicillium</i> .
BotryStop	Urocladium oudemansii U3 strain	F, N, P	NC	Biofungicide for use on many crops against <i>Botrytis</i> diseases.
Bravo	chlorothalonil	B, F, P	M5	Good protectant fungicide with long residual activity. Rain can redistribute to some extent.
Bravo CM	chlorothalonil + copper + maneb	B, Bact, F, P		Discontinued.
Break	propiconazole	B-N, C, F, Ls, P	3	Similar label to Tilt but for California only.
Briskway	azoxstrobin + difenconazole	B, C, F, Ls, P	3 + 11	Combination fungicide for use on turfgrass.
Broadform	fluopyram + trifloxystrobin	B, F Ls, P	7 + 11	Ornamental label for nurseries, greenhouse and land- scapes.
Bumper	propiconazole	B-N, C, F, Ls, P	3	Generic product for popular fungicide.
Burrows E Wrap	ethoxyquin	N, P		Discontinued.
Cabrio	pyraclostrobin	B, F, Ls, P	11	Next generation strobilurin after Sovran. Better activity on numerous diseases.
Calirus	phosphorous acid	A, Fs, N, P, S	P7	Discontinued.
Camelot O	copper octanoate (soap)	Bact, F	M1	Ornamental label.
Cannonball	fludioxonil	F, N, P	12	Active against <i>Botrytis</i> and <i>Sclerotinia</i> diseases. For ginseng, melons and vegetables.
captafol	Difolatan			Discontinued.
captan	Captan, (CaptEvate)	B, F, P	M4	Controls a wide variety of fungal diseases. Seed treatment by slurry; dry treatment; and plant-box application. Compatible with most commonly used insecticides and fungicides but cannot be used with strong alkalines or oil sprays.
CaptEvate	Captan + fenhexamid	B, F, P	M4 + 17	For <i>Botrytis</i> and brown rot control in some fruit crops.
Carbamate	ferbam	B, F, P		Discontinued name.
carbofuran	Furadan	B, I, Nem		Restricted-use pesticide breaks down rapidly with certain soil microbial populations.
Carboject	oxycarboxin	F, Ls, N		<b>Discontinued</b> . Used for tree injection.
carbon bisulfide	carbon disulfide	F, Fum, I, V		One of the most widely used fumigants for insects in stored grain, usually in combination with carbon tetrachloride to reduce fire hazard. Also a soil fumigant to control soil fungi and deep-rooted perennial weeds.
carboxin	Vitavax	F, S	7	Seed treatment. Controls smuts and Rhizoctonia solani.
Cavalier	thiophanate-methyl	B, F, P, S	1	Discontinued.
Cease	Bacillus subtilis strain QST 713	F, P	BM02	Biological for several crops. O
Cela W524	triforine	B-N, C, F, P, S		Discontinued. Old experimental code name.
Cellu-Treat	disodium octaborate tetrahydrate	Р	š	Wood preservative that can be used for protection of stumps from Heterobasidion Root Disease.
cerevisane	Romeo	A, P	NC	Cell walls of <i>Saccharomyces cerevisiae</i> strain LAS 117 (Brewer's yeast) that stmulates host defense mechanisms. O
Cevya	mefentrifluconazole	B-N, C, F, Ls, P	3	Flexible molecule that helps with cross-resistance management within this FRAC 3 group. Labeled for various tree fruit, small fruit, and vegetable crops.
ChampION++	copper hydroxide	B, Bact, F, P	M1	Organic formulation. O
Charter	triticonazole	B-N, C, F, Ls, P	3	Wheat and barley seed treatment. For smuts, bunt, and early season infections by <i>Fusarium</i> and <i>Rhizoctonia</i> .
Chipco 26019	iprodione	F, Ls, N, P	2	Ornamental label for material against such fungi as <i>Botrytis</i> and <i>Monilinia</i> . Resistance is likely with increasing number of applications.

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chitosan	Warhammer	A, B	NC	A chitosan formulation that is an activator of host defense responses in plants. May be applied to all crops and has no preharvest interval or reentry interval requirements.
chlorfenapyr	Pylon	I, Nem		An ornamental miticide with activity against foliar nematodes.
chloroneb	Anderson's Golf Product Fungicide	F	14	Supplemental seed treatment, or in-furrow soil treatment at planting time, for systemic control of seedling diseases. Controls snow mold ( <i>Typhula</i> ), Pythium blight, brown patch, Sclerotium rot.
Chlor-O-Pic	chloropicrin	Bact, F, Fum, I, Nem		Restricted-use material. Soil fumigant.
chloropicrin	Chlor-o-Pic Metapicrin Timber Fume Tri-Clor	Bact, F, Fum, I, Nem		Restricted use. Soil fumigant to control nematodes, bacteria, fungi, insects, and weeds. Also a warning agent in odorless fumigants such as methyl bromide (Terr-o-Gas) and sulfuryl fluoride. Active chemical in tear gas.
chlorothalonil	Bravo, Echo, Ensign, Daconil 2787 (Concert, Orondis Opti) many others.	B, F, P	M5	Good protectant fungicide. Controls many diseases on many crops.
Cinnacure	cinnamaldehyde	N, E		Discontinued.
cinnamaldehyde	Cinnacure	N, E		Labeled for several insects, mites and powdery mildew. Very short residual so use only as disinfectant.
Cinnamite	cinnamaldehyde	N, E		Discontinued name.
Cinnerate	Cinnamon Oil	E, F, I, N	NC	Botanic oil active on powdery mildews. Labeled for a variety of diseases, mites and crops. O
Civitas Turf Defense	horticultural mineral oil	E, F, I, P	NC	Label for turf on golf courses, sports and athletic fields.
Clandosan	chitin, urea, and minerals	N		Discontinued.
Cleary's 3336	thiophanate-methyl	B, F, P, S	1	Ornamental label. The plant converts thiophanate-methyl to carbendazim, the active fungicidal compound. Spectrum of activity is not as great as Benlate's.
Clevis	mancozeb + myclbutanil	B, C, F, Ls, P	M3 + 3	Discontinued.
C-O-C-S	copper oxychloride	B, Bact, F	M1	Activity is similar to other coppers.
Companion	Bacillus subtilis GB03	F, P	BM02	Control of <i>Rhizoctonia</i> , <i>Pythium</i> , <i>Fusarium</i> , and <i>Phytophthora</i> diseases. O
Compass	trifloxystrobin	B, F, Ls, P	11	Ornamental label for a strobilurin compound effective against many fungi.
Concert	propiconazole + chlorothalonil	B, C, F, Ls, P	3 + M5	Combination for turf and ornamentals.
Concorde	chlorothalonil	B, F, P	M5	Discontinued name.
Consyst	chlorothalonil + thiophanate-methyl	B, F, P	M5 + 1	Discontinued.
Contans	Coniothyrium minitans	Е	NC	Biological for destruction of sclerotia of Sclerotinia spp. O
Contend A	benzovindiflupyr + difenconazole	B, F, Ls, P	3 + 7	Label for snow mold on golf course turfgrass only.
Contend B	azoxystrobin + propiconazole	B-N, C, F, Ls, P	3 + 11	Label for snow mold on golf course turfgrass only.
Contrast	flutolanil	F, S, N	7	Discontinued.
Copper-Count-N	copper ammonium complex	Bact, F	M1	Discontinued.
coppers:			M1 for all	
bordeaux	copper sulfate + hydrated lime	B, Bact, F, P		Still an important and effective dormant-season product (mixture) in rainy areas. Difficult to make and apply with conventional equipment. O
copper ammonium complex	Copper Count-N, Ko-R-Spray	B, Bact, F		Similar to other copper products.O
copper sulfate	basic copper sulfate, cuprofix disperss	B, Bact, F		Controls many diseases. Used in dormant season with oil. O
copper hydroxide	Champ, Kocide, Nu-Cop, CuPRO, Kalmor, Kentan, Previsto	B, Bact, F		Controls many diseases. Used in dormant season with oil. Next-best copper after bordeaux for efficacy and rainfastness, and much easier to apply. O
copper octanoate	Cueva, and others	B, Bact, F		Many organic uses. O
copper oxychloride	C-O-C-S	B, Bact, F		Activity similar to other coppers. O
copper oxides	Nordox	B, Bact, F		Activity similar to other coppers. O

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Coronet	pyraclostrobin + boscalid	B, F, Ls, P	11 + 7	Broad-spectrum fungicide combination labeled for seed treatment of various vegetable and field crops.
Cosavet	sulfur	F, I, P, V	M2	Discontinued name.
Cruiser Extreme	thiamethoxam + fludioxonil + mefenoxam + azoxystrobin	B, F, Ls, P	4A + 12 + 4 + 11	Discontinued.
Cruiser Maxx Potato	thiamethoxam + fludioxonil	F, N, P	4A + 12 + 4 + 11	Seed treatment product for protection against certain insects, seedborne diseases, and seedling diseases of potato.
Cruiser Maxx Vibrance Potato	thiamethoxam + fludioxonil + difeno- conazole + sedaxane	B, C, F, Ls, P	4A + 3 + 12 + 7	Seed treatment product for protection against certain insects, seedborne diseases, and seedling diseases of potato.
Cruiser Maxx Potato Extreme	thiamethoxam + fludioxonil + difenoconazole	B, C, F, Ls, P	4A + 3 + 12	Seed treatment product for protection against certain insects, seedborne diseases, and seedling diseases of potato.
CS 2005	copper sulfate	B, Bact, F	M1	Similar to other copper-based pesticides.
Cueva	copper octanoate (soap)	B, P, Bact, F	M1	Many organic uses. O
CuPRO	copper hydroxide	B, Bact, F	M1	Similar to other copper products.
Cuprofix Disperss	basic copper sulfate	B, Bact, P	M1	Fixed copper labeled for many crops.
Curalan	vinclozolin	B-N, F, Ls, P	2	Discontinued.
Curzate	cymoxanil	F, Ls	27	Labeled for control of potato and tomato late blight; hop downy mildew.
cyazofamid	Ranman, Segway	N, F, Ls, P	21	Activity against oomycete fungal-like organisms.
cycloheximide	Acti-dione	F		Discontinued.
cyflufenamid	Torino, fastback	F, P	U6	For powdery mildew on a few fruit, hop, and vegetable crops.
Cygnus	kresoxim-methyl	B, F, Ls, P	11	Discontinued.
cymoxanil	Curzate, (Tanos)	F, Ls	27	Late blight of potato and tomato, downy mildew of hops.
Cyprex	dodine	U12		Discontinued name. See also Syllit.
cyproconazole	Alto	B-N, F, Ls	3	Broad spectrum fungicide for cereals and soybeans.
cyprodinil	Vangard, (Switch, Palladium)	C, Fs, Ls, N, P	9	Good activity on <i>Botrytis</i> and <i>Monilinia</i> . Fair on apple scab. Resistance is a problem if overused.
Daconil	chlorothalonil	B, F, P	M5	Ornamental label. Good protectant fungicide with long residual activity. Rain can redistribute to some extent.
Dart	Capric and Caprylic Acid	F, P	NC	Variety of crops and early formulations were phytotoxic.
Dasanit	fensulfothion	I, Nem		Discontinued.
dazomet	Basamid	F, Fum, I, Nem		Restricted use. For soil fungi, nematodes, germinating weeds, soil insects. Antimicrobial in slimicide preparations.
DCNA	dicloran	B, F, P	14	Discontinued.
Decco I-182	Candida oleophila	F, N, P		Discontinued name.
Decco Salt 19	thiabendazole	F, P, S	1	Postharvest fungicide for apples, pears, carrots, and potatoes
Deccosol	SOPP	F		Discontinued name.
Decree	fenhexamid	F, N, P	17	Labeled for use against <i>Botrytis</i> for ornamental and certain greenhouse vegetables/transplants.
Defend	pentachloronitrobenzene (PCNB)	B, F, P	14	Discontinued.
Defiant	thiram	B, F, P	M3	Discontinued.
Densicor	prothioconazole	NC	3	Turf label.
Deny	Burkholderia cepacia	F, N, P		Discontinued.
Dexter Max	mancozeb + azoxystrobin	B, F, P	M3 + 11	Broad-spectrum fungicide for vegetables, fruit, and cereals. Toxic to some apples.
Dexter SC	azoxystrobin	B, F, Ls, P	11	Effective against a large number of fungi including powdery and downy mildews. Severe phytotoxicity on apples with a McIntosh heritage.
Dexter Xcel	mancozeb + azoxystrobin + tebucon- azole	B, F, P	M3 + 11 + 3	Broad-spectrum fungicide for vegetables and cereals.

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dichlone	Dichlone Seed Protectant, Phygon			Discontinued.
dichloropropene	Telone II	B, E, Fum, Nem		Preplant for nematode, disease, insect, and weed control on a variety of crops. Harmful to crop plants and applied only as preplant to control nematodes. Do not apply in glasshouses containing plants. Apply year-round if soil conditions are suitable. Immediately seal soil surface by lightly compacting with roller or water. Do not plant any crop while any odor remains in soil. If in doubt, aerate soil by cultivating a few days before planting or sowing Restricted use.
dicloran	DCNA, Botran	B, F, P	14	Active against <i>Botrytis, Monilinia, Rhizopus</i> (best on), <i>Sclerotinia</i> , and <i>Sclerotium</i> .
difenoconazole	Dividend, Inspire, (Quadris Top, Academy, Miravis Duo, Postiva)	B-N, C, F, Ls, P	3	Controls a broad range of fungal pathogens on many crops.
Difolatan	captafol			Discontinued.
Dikar	mancozeb + dinocap			Discontinued.
dimethomorph	Acrobat, Forum, Stature, (Orvego, Zampro)	F, P	40	Active against oomycetes like late blight of potato. But not <i>Pythium!</i>
dimethy disulfide	Paladin	B, E, F, Fum, I, Nem		Discontinued.
dinocap	Karathane, Crotothane	F, I		Discontinued.
Disarm	fluoxastrobin	B, F, Ls, P	11	Turf label for this fungicide.
Distinguish	$pyrimethani\ l+trifloxystrobin$	B, F, Ls, P	9 + 11	Discontinued.
DiTera	<i>Myrothecium verrucaria</i> strain AARC-0255, fermentation solids and solubles	N	NC	Biocontrol formulation for nematode control in many crops. O
Dithane M22	maneb	B, F, P		Discontinued. No longer manufactured.
Dithane	mancozeb	B, F, P	M3	Excellent protective fungicide for many diseases on many crops. Field crop label.
Dividend	difenoconozole	B-N, C, F, P, S	3	Labeled as a seed treatment. Now comes packaged with Apron XL.
Dividend Extreme	difenoconazole + mefenoxam	B, C, F, P, S	3 + 4	Effective against various soilborne diseases in wheat, triticale, and barley.
Dividend XL RTA	difenoconazole + mefenoxam	B, C, F, P, S	3 + 4	Effective against various soilborne diseases in wheat.
Docket	chlorothalonil	B, F, P	M5	Discontinued name.
Dodine	dodine	B, F, P	U12	Good for apple scab (if resistance is not a problem) leaf spot, and a few bacterial diseases. Bacterial activity low.
Domain	thiophanate-methyl	B, F, P, S		Discontinued name.
Dominus	allyl isothiocyanate	B, F, Fum, Nem	?	Broad spectrum pre-plant soil biofumigant for the control of certain soil borne fungi, nematodes, weeds, and insects in high-value crops.
Double Nickel	Bacillus amyloliquefaciens strain D747	F, P	BM02	Biological registered for many diseases. O
Du-Ter	triphenyltin hydroxide			<b>Discontinued</b> name. See Super Tin
Duosan	thiophanate-methyl + mancozeb	B, F, P, S		Discontinued.
Dynasty	azoxystrobin	B, F, P, S	11	Seed treatment for control of seed and seedborne disease of barley, corn, wheat, and legume vegetables.
Dyrene	wanilazine			Discontinued.
eFog	fludioxonil	F, N. P	12	Use postharvest on pome fruit by thermal fogging.
Eagle	myclobutanil	B-N, C, F, Ls, P	3	Labeled for landscape diseases.
Echo	chlorothalonil	B, F, P	M5	Good protectant fungicide that controls many diseases.
EcoSwing	Extract of Swinglea glutinosa	BM01		Labeled for many crops. O
Ecozin	azadirachtin	Nem		Botanical insecticide. Interferes with juvenile growth and repellent of adult nematodes.
Elatus	azoxystrobin + benzovindiflupyr	B, F, P	11 + 7	Broad-spectrum fungicide for corn, canola, and potatoes.
Elevate	fenhexamid	F, N, P	17	Food use label for use against <i>Botrytis</i> .

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Elite	tebuconazole	B-N, C, F, Ls, P	3	Discontinued.
Emblem	fludioxonil	F, N, P	12	Discontinued.
Emerald	boscalid	F, P	7	Labeled for turfgrass disease control.
Employ	harpin	A	?	SAR protein from a bacterium. Registered for many crops.
Empress	pyraclostrobin	B, F, Ls, P	11	Strobilurin used on many crops but this label for drenching ornamentals.
Encartis	boscalid + chlorothalonil	B, F, P	7 + M5	Label for golf course turfgrass.
Endorse	polyoxin D	F	19	Turf label for this antibiotic against Rhizoctonia diseases.
Endura	boscalid	F, P	7	For control of potato and tomato early blight and <i>Sclerotinia</i> , <i>Alternaria</i> , <i>Monilinia</i> and <i>Botrytis</i> .
Ensign	chlorothalonil	B, F, P	M5	Discontinued.
Enzone	tetrathiocarbonate	B, Fum, Nem, V		Discontinued.
Epic 30	iprodione	B-N, F, Ls, P	2	Discontinued.
Equus	chlorothalonil	B, F, P	M5	Good protectant fungicide. Controles many diseases on many crops.
E-Rase	Jojoba oil	E, F	NC	Discontinued.
ethaboxam	V-10208	C, Ls, N, P, S	22	For oomycete-caused diseases in vegetables.
ethoprop	Мосар	B, E, I, Nem		Action by contact; must be mixed with soil or carried by water into soil.
ethoxyquin	Pear Wrap III	N, P		Paper wrapped around pear fruit to prevent scald.
Ethylene dibromide	Dowfume	Fum, I, Nem		Discontinued.
etridiazole	Terrazole, Truban, (Banrot)	F, N	14	Soil-drench ornamental fungicides. Control <i>Pythium</i> and <i>Phytophthora</i> . Sensitive to UV irradiation.
Evito	fluoxastrobin	B, F, Ls, P	11	Effective against a large number of fungi including early and late blight.
Evolve	thiophanate-methyl + mancozeb + cymoxanil	F, P, S	1 + 27 + M3	Potato seed piece treatment for suppression of Fusarium, dry rot, black scurf ( <i>Rhizoctonia</i> sp.), silver scurf ( <i>Helminthosporium</i> sp.), and spread of <i>Phytophthora infestans</i> between seed-pieces.
Excalia	inpyrfluxam (Indiflin)	F, P	7	A few fruit and field crops to start.
Exotherm Termil	chlorothalonil	B, F, P	M5	Discontinued.
Exteris Stressgard	fluopyram + trifloxystrobin	B-N, F, Ls, P	7 + 11	Turfgrass label.
Fame	fluoxastrobin	B, F, Ls, P	11	Ornamental label.
famoxadone	(Tanos)	F, Ls	11	Labeled for hop and grape downy mildew, some foliar diseases of cucurbits.
Farmsaver	streptomycin	Bact, P	25	Discontinued.
Fastback	cyflufenamid	F, P	U6	Same product as Torino.
fenamidone	Reason, Fenstop	F, P	11	Effective against certain foliar diseases in vegetable crops. Also labeled for oomycetes on ornamentals.
fenaminosulf	Lesan	F		Discontinued.
fenamiphos	Nemacur	C, Nem, S		Discontinued.
fenarimol	Focus, Vintage	B-N, C, F, Ls	3	Discontinued.
fenazaquin	Magister, Magus	Ar, I, P	39	An acaricide with activity on powdery mildew. Bees are very sensitive.
fenbuconazole	Indar, Enable	B-N, C, F, Ls, P	3	Fruit label. Excellent against brown rot.
fenhexamid	Decree, Elevate, Judge	F, N, P	17	For use against <i>Botrytis</i> .
fenpyrazamine	Protexio	F, N, P	17	For use against <i>Botrytis</i> and related fungi. Is not recommended on fruit crops due to bad garlic smell when used.
Fenstop	fenamidone	F, N, P	11	Labeled for oomycetes on ornamentals.
fensulfothion	Dasanit	I, Nem		Discontinued.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
ferbam	Ferbam Granuflo	B, F, P	M3	Good fungicide but leaves a black residue and is not compatible with lime or copper.
Ferbam Granuflo	ferbam	B, F, P	M3	Label for fungal diseases of tree fruits and cranberries.
ferrous sulfate	MossMax, Moss out, Moss Terminator	C, N	NC	Kills moss on contact but can stain cement drive ways and sidewalks.
Fiata	phosphorous acid	A, Fs, N, P, S	P7	Turf label for a material with activity on oomycetes.
Fire line	oxytetracycline	Bact, P	41	Antibiotic for fire blight on pear.
Fire wall	streptomycin	Bact, P	25	Discontinued.
FirstStep	potassium bicarbonate	E, F		Discontinued name.
Fitness	propiconazole	B-N, C, F, Ls, P	3	Another generic of a popular fungicide.
FlameOut	oxytetracycline	Bact, P	41	Discontinued name.
Flanker	fosetyl-AL	A, Bact, Fs, P, S P7		Discontinued name.
Flint	trifloxystrobin	B, F, Ls, P	11	A strobilurin compound for several crops. Phytotoxic to Concord grapes.
Flo-Pro IMZ	imazalil	F, P, S		Discontinued.
Folpan	folpet	F	M4	Labeled for hop downy mildew.
fluazaindolizine	Salibro	Nem	N-UN	A novel, non-fumigant chemical nematicide for cucurbits, fruiting vegetables, carrots, potatoes, tree nuuts, sweet potatoes, and other crops. May be applied using drip or micro-sprinkler irrigation, drench or soil spray followed by irrigation.
fluazinam	Omega, Secure	B, F, P	29	Has a rather broad spectrum of activity. Labeled for use on potato for Phytophthora and Sclerotinia diseases, and Apple scab.
fludioxonil	Emblem, Maxim, Medallion, Scholar, Cannonball, Spirato, (Switch, Pal- ladium)	F, N, P	12	A seed treatment, postharvest and ornamental fungicide. Degraded by exposure to direct sunlight.
fluensulfone	Nimitz	Nem		Nematicide for use on vegetables and strawberries.
fluopicolide	Presidio, Adorn (Stellar)	F, N, P	43	Active against selective oomycetes. Prone to resistance problems so must be tank-mixed.
fluopyram	Luna Privilege, Indemnify, Velum Prime (Luna Experience, Luna Sensa- tion, Luna Tranquility)	F, P, Nem	7	Vegetables and tree crop foliar and fruit disease management. Some nemacidal activity too.
fluoxastrobin	Evito, Disarm, Aftershock, Fame	B, F, Ls, P	11	Effective against a large number of fungi including early and late blight of potato.
flutianil	Gatten	F, N	U13	Active on powdery mildews on many crops.
flutolanil	ProStar, Contrast, Moncut	F, S	7	Used to control turf and ornamental diseases caused by basidiomycetes. Sensitive to light.
flutriafol	Topguard, Rhyme, Rayora (Topguard EQ)	B-N, C, F, Ls, P	3	Label for field crops and nuts. Highly mobile in plant tissues with transpiration stream.
fluxapyroxad	(Merivon, Obvius) Orkestra, Xzemplar	B, F, P, C	7	Broad-spectrum fungicide used as a seed treatment or for foliar diseases.
Focus	fenarimol	B-N, C, F, Ls	3	Discontinued name.
Folcid	captafol			Discontinued name.
Folicur	tebuconazole	B-N, C, F, Ls, P	3	Discontinued name.
folpet	Folpan	F	M4	Labeled for hop downy mildew.
Fontelis	penthiopyrad	B, F, P	7	Use on fruits and vegetables for management of many leaf spots, powdery mildew and fruit rots.
Fore	mancozeb	B, F, P	M3	Ornamental label lists a broad array of diseases and crops. Has a green pigment for turf use.
formaldehyde	Aldesan Microbiocide	B, D, F		Fungicide, germicide, soil sterilant, and formerly seed treatment. Used on ornamental bulb crops for nematode and <i>Sclerotium</i> management.
Formalin	formaldehyde	F		Discontinued.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Forum	dimethomorph	F, P	40	Active against downy mildew of cucurbits, garlic, onion, lettuce, and hops as well as late blight of potato and tomato.
fosetyl-Al (aluminum tris)	Aliette, Signature	A, Bact, Fs, P, S	P7	Preventive and curative activity against many oomycetes.  A low level of bactericidal activity that has been variable.
Fosphite	phosphorous acid	A, Fs, N, P, S	P7	Activity against oomycete fungal-like organisms. O
Fracture	BLAD	F	BM01	A naturally occurring seed storage protein in sweet lupines. Registered on tomato and some fruit crops. Effective on brown rot but not so much on powdery mildew.
Fungaflor	imazalil	F, S	3	Discontinued.
Funginex	triforine	B-N, F, Ls, P	3	Discontinued.
Fungi-Phite	phosphorous acid	A, Fs, N, P, S	P7	Useful for oomycetes.
Fungisei	Bacillus subtilis strain IAB/BS03	A, B-N, F	BM02	Biocontrol labeled for a range of crops. H O
Fungisol	debacarb + carbendazim	B, C, F, Ls	? + 1	Used for tree injection against a number of diseases.
Fungo	thiophanate-methyl	B, F, P, S		Discontinued name.
Fung-onil (bonide)	chlorothalonil	B, F, P	M5	Home label for good fungicide.
FungOut	citric acid	Bact, F	NC	Labeled for a variety of crops. Active ingredient useful for improved antibiotic activity against fire blight. O
Furadan	carbofuran	B, I, Nem		Discontinued.
Gallex	xylenol + cresol	E		A paint on very young crown galls to prevent further development. May need to reapply frequently, and may not work if applied too late.
Galltrol	Agrobacterium radiobacter	Bact, P	NC	Biological for the prevention of crown gall. O
Gatten	flutianil	F, N	U13	Active on powdery mildews on many crops.
Gavel	mancozeb + zoxamide	B, F, P	M3 + 22	Broad-spectrum fungicide for control of potato late and early blights.
Gem	trifloxystrobin	B, F, Ls, P	11	Effective against many fungi. May become a discontinued name.
gibberellic acid	ProGibb	Growth regulator	NC	Plant hormone used to change growth of plants for aesthetic and disease control reasons (grapes).
Grotto	copper octanoate (copper soap)	B, Bact, F	M1	Ornamentals and turf label. O
Guarda	Thyme oil	B-N, F, I.	BM01	The essential oils can be used for several pest issues.
Halt	thiophanate-methyl	B, F, P, S	1	Discontinued.
Harbour	streptomycin	Bact, P	25	Antibiotic for fire blight management.
harpin	Messenger, Employ, ProAct	A		Protein from a bacterium that stimulates host defense mechanisms. Also purported to enhance plant growth. O
Headline	pyraclostrobin	B, F, Ls, P	11	Next generation strobilurin after Sovran. Better activity on numerous diseases.
Heads Up	saponins	A	NC	Botanical extract from <i>Chenopodium quinoa</i> for field crops and tomato. O
Headway	azoxystrobin + propiconazole	B-N, C, F, Ls, P	3 + 11	Turf label.
Helix Vibrance	difenoconazole + mefenoxam + fludioxonil + sedaxane	B, C, F, P, S	3 + 4 + 12 + 7	Broad-spectrum fungicide combination plus an insecticide labeled for seed treatment of canola.
Heritage	azoxystrobin	B, F, Ls, P	11	Labeled for turf and ornamentals, transplants of fruit and nut trees, and vegetable and herb plants. Very effective, active against a very large number of fungi.
Heritage Action	azoxystrobin + acibenzolar	A, B, F, Ls, P	11 + P1	Turf formulation with a fungicide and the plant activator Actigard.
hexachlorobenzene	Anticarie, Sanocide Seed Protectant, Hexachloro benzene 40, No Bunt 40, Smut Go			Most are discontinued. Seed protectant. For common bunt and smut.
HMO (Horticultural Mineral Oil)	Civitas, JMS Stylet Oil, Neem Oil	E, F, I, P	NC	Oils are good for powdery mildew eradication. Don't mix with sulfur. Synthetic oils better than botanical oils.
Hoist	myclobutanil	B-N, C, F, Ls, P	3	Discontinued.
Honor	boscalid + pyraclostrobin	B, F, Ls, P	7 + 11	Combination fungicide for use on golf courses.

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Howler Evo	Pseudomonas chlororaphis strain AFS009	A, B-N, F	BM02	Biological used mainly for <i>Botrytis</i> . O
Hurricane	fludioxonil + mefenoxam	N, F, Fs, P, S	12 + 4	Discontinued.
iodomethane	Midas	Fum, V		Discontinued.
imazalil	Double R, Fungaflor	F, S	3	Especially active against benzimidazole-resistant strains of plant pathogenic fungi.
Indar	fenbuconazole	B-N, C, F, Ls, P	3	Tree fruit label. Excellent against brown rot.
Indemnify	fluopyram	Nem, F, P	7	A fungicide with nematicidal activity for use on lawns and turf.
Infuse Systemic Disease Control Lawn & Landscape	thiophanate methyl	B, F, P, S	1	Home label for an old fungicide. Fungal resistance common.
Infuse Systemic Disease Control	propiconazole	B-N, C, F, Ls, P	3	Home label for this good fungicide.
inpyrfluxam (Indiflin)	Excalia	F, P	7	A few fruit and field crops to start.
Insignia	pyraclostrobin	B, F, Ls, P	11	Turf and ornamental label for this strobilurin.
Inspire	difenoconazole	B-N, C, F, Ls, P	3	Labels for sugar beet and fruit.
Inspire Super	difenconazole + cyprodinil	B-N, C, F, Ls, P	3 + 9	For pome fruit and nuts.
Instill	copper sulfate pentahydrate	B, Bact, F	M1	Another copper label for several crops. See also Phyton 27.
Instrata	chlorothalonil + propiconazole + fludioxonil	B, C, F, Ls, P	M5 + 3 + 12	Combination label for turf.
Intercept	Coniothyrium minitans	F		Discontinued name, see Contans.
Interface	iprodione + trifloxystrobin	B, C, F, Ls, P	2 + 11	Combination fungicide for use on turfgrass.
Intuity	mandestrobin	B, F, Ls, P	11	Another strobilurin for grapes and strawberries.
ipconazole	Rancona 3.8 FS	B, F P	3	Seed treatment for a broad range of crops.
iprodione	Chipco 26019, Rovral, Epic 30, Nevado, Iprodione, and many others	F, N-B, P	2	Active on a broad spectrum of diseases: <i>Botrytis, Sclerotinia, Monilinia, Alternaria, Helminthosporium, Fusarium, Rhizoctonia,</i> etc.
isofetamid	Kenja, Astun	B-N, C, F, Ls, P	7	Small fruit and ornamental fungicide.
Jet-Ag	peroxides	B, D	NC	Labeled as an algaecide as well as bactericide and fungicide.
JMS Stylet Oil	aliphatic petroleum distillate (HMO)	E, F, I, P	NC	Good activity against powdery mildews. Do not use near sulfur applications.
Judge	fenhexamid	F, N, P	17	Discontinued name.
Junction	copper hydroxide + mancozeb	Bact, B	M1 + M3	Developed to control bacteria (on ornamentals) that are resistant to copper products.
Kaligreen	potassium bicarbonate	E, F	NC	To supplement powdery-mildew control programs.
Kalmor	copper hydroxide	B, Bact, F	M1	Another copper for food crops and ornamentals.
Karathane	dinocap			Discontinued.
kasugamyacin	Kasumin	Bact, P	24	Control of bacterial diseases such as fire blight.
Kasumin	kasugamyacin	Bact, P	24	Control of bacterial diseases such as fire blight.
Kenja	isofetamid	B-N, C, F, Ls, P	7	Small fruit fungicide.
Kentan	copper hydroxide	B, Bact, F	M1	Registered on many crops.
Kestrel	propiconazole	B-N, C, F, Ls, P	3	Another generic of a great fungicide.
KleenGrow	quaternary ammonium	D		Disinfectant with over the plant label for some ornamentals. Bulb dips also.
Koban 30	etridiazole	F, N	14	Discontinued.
Kocide 50 DF	copper hydroxide	B, F, P	M1	Popular copper product for controlling many diseases. Several formulations are available.
Kodiak	Bacillus subtilis	F, P	NC	Discontinued.
Kop-R-Spray	copper ammonium carbonate	Bact, F	M1	Discontinued.
Koverall	mancozeb	B, F, P	M3	Old chemistry that is a good protectant fungicide.

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kresoxim-methyl	Cygnus, Sovran	B, F, Ls, P	11	Strobilurin fungicide effective on powdery mildew and many other fungi. Phytotoxic on a few cherry cultivars such as Van.
Kumulus	sulfur	F, I, P, V	M2	Discontinued.
LALStop G46	Clonostachys rosea strain J1446	A, B-N, F	BM02	Biological. O
LALStop K61	Streptomyces sp. strain K61	A, B-N, F	BM02	Biological. O
laminarin	Vacciplant	A	P4	Wide range of crops it can be used on. Better activity on annuals than perennials.
Laredo	myclobutanil	B-N, C, F, Ls, P	3	Just labeled for almond.
Legion	fosetyl-AL	A, Bact, Fs, P, S	P7	Discontinued.
Lesan	fenaminosulf			Discontinued.
Lexicon	fluxapyroxad + pyraclostrobin	B-N, F, Ls, P	7 + 11	Turfgrass label.
LifeGard	Bacillus mycoides isolate J	A		Biofungicide for use on fruit, field, nut and vegetable crops. O
Lilly Miller Sulfur Dust	sulfur			Discontinued.
lime sulfur	Lime-Sulfur, Sulforix	B, E, F, I		A fungicide that denatures fungal structures on contact. Good dormant-season control of insects and mites. O
LSP Flowable Fungicide	thiabendazole	F, P, S	1	Seed treatment effective against common bunt of wheat.
Luna Experience	fluopyram + tebuconazole	F, P B-N, C, Ls	7 + 3	Tree crop and grape foliar and fruit disease of wheat.
Luna Privilege	fluopyram	F, P	7	Vegetables and tree crop foliar and fruit disease management.
Luna Sensation	fluopyram + trifloxystrobin	F, P B-N, C, Ls	7 + 11	Tree crop and grape foliar and fruit disease management.
Luna Tranquility	fluopyram + pyrimethanil	F, N, P	7 + 9	Vegetable and fruit disease management.
Magister	fenazaquin	Ar, I, P	39	An acaricide mixed with fenazaquin with activity on powdery mildew. Bees are very sensitive. Labeled for cherry, hop, Christmas trees, and non-bearing fruit.
Magus	fenazaquin	Ar, I, P	39	An acaricide with activity on powdery mildew. Bees are very sensitive. Labeled for ornamentals.
Majestene	Dead Burkholderia spp. strain A396	Nem	NC	Nematacide for use after planting. O
mancozeb	Fore, Dithane, Manzate, Pentathelon Protect, and many others	B, F, P	M3	Good protectant fungicide and seed treatment.
mandestrobin	Intuity, Pinpoint	B, F, Ls, P	11	Another strobilurin for grapes, strawberries and turf.
mandipropamid	Revus (Revus Top, Orondis Ultra) Micora	N, F, P	40	For control of some ooymcetes like downy mildew but not Pythium.
maneb	Manex	B, F, P	M3	Moderately effective protectant fungicide.
Manex	maneb	B, F, P	M3	Discontinued.
ManKocide	copper hydroxide + mancozeb	Bact, B	M1 + M3	Developed to control bacteria resistant to copper products.
Marvista	Methylcyclopropene (1-MCP)	N		Pre-harvest application that prevents ethylene production in stored fruit so it helps control ripening and scald of apple among other things.
MasterCop	Copper sulfate pentahydrate	B, Bact, F	M1	Broad label for many crops.
Maxim	fludioxonil	F, P	12	A seed treatment.
Maxim MZ	fludioxonil + mancozeb	F, P	12 + M3	Potato seed piece treatment for suppression of Fusarium dry rot, black scurf ( <i>Rhizoctonia</i> sp.), and silver scurf ( <i>Helminthosporium</i> sp.).
Maxtima	mefentrifluconazole	B-N, C, F, Ls, P	3	Turf label.
Medallion	fludioxonil	F, N, P	12	Registered to control Rhizoctonia on ornamentals.
mefenoxam	Ridomil Gold, Subdue MAXX, Apron XL, Mefenoxam 2 (Quadris, Ridomil Gold, Ridomil Gold Bravo, Uniform)	Fs, P, S	4	The biologically active R-enantiomer of metalaxyl.
mefentrifluconazole	Avelyo, Cevya, Maxtima, Provysol (Veltyma)	B-N, C, F, Ls, P	3	Flexible molecule that helps with cross-resistance management within this FRAC 3 group.

Merivon fluxa  Mertect 340-F thial  Messenger harp metalaxyl Ridc Acqu  metam-sodium Vapa  Metapicrin chlo MetaStar meta metconazole Qua  Meteor ipro- metrafenone Viva methyl bromide Bror Tri-o	ecilomyces lilacinus strain 251  exapyroxad + pyraclostrobin  abendazole  rpin  domil, Subdue, Apron Allegiance, quire, MetaStar, (Obvius)  pam HL, Metam CLR  oropicrin  etalaxyl  lash, Tourney  odione  orando  om-o-Gas, Terr-o-Gas	Nem, P  F, P, B-N, C, Ls  F, P, S  A  C, Fs, P, S  E, F, Fum, I, Nem  Bact, F, Fum, I, Nem  Fs, N, P, S  B-N, C, F, Ls, P  F, N-B, P	7 + 11  1  4  4  3 2	A nematode used for biological control of nematodes that can be used after planting but better when used at planting. Stable for weeks in the refrigerator. O  Tree fruit fungicide for powdery mildew and several other diseases. Do not use near grapes.  Has a number of good postharvest uses if resistance is not yet a problem.  Discontinued name.  Best control of oomycetes if resistance is not yet a problem. May have curative properties, but using it that way encourages resistance to the chemical.  Restricted-use materials. Soil disinfectant for soil fungi, nematodes, soil insects (wireworms, centipedes) and weeds. Field area or row application by soil injection or sprinkler injection. Treat seed, plant beds, and potting soil by different methods. Penetration and effectiveness is improved by water seal. Repeated applications may encourage bacteria that degrade this chemical faster.  Discontinued.  For control of ooymcetes in many crops.  Labeled for tree fruit, nuts, and turf.
Mertect 340-F thial  Messenger harp metalaxyl Rido Acqu  metam-sodium Vapa  Metapicrin chlo MetaStar meta metconazole Qua Meteor ipro metrafenone Viva methyl bromide Bror Tri-o	abendazole  rpin  domil, Subdue, Apron Allegiance, quire, MetaStar, (Obvius)  pam HL, Metam CLR  oropicrin  etalaxyl  lash, Tourney odione	F, P, S  A C, Fs, P, S  E, F, Fum, I, Nem  Bact, F, Fum, I, Nem Fs, N, P, S  B-N, C, F, Ls, P  F, N-B, P	4 3	other diseases. Do not use near grapes.  Has a number of good postharvest uses if resistance is not yet a problem.  Discontinued name.  Best control of oomycetes if resistance is not yet a problem. May have curative properties, but using it that way encourages resistance to the chemical.  Restricted-use materials. Soil disinfectant for soil fungi, nematodes, soil insects (wireworms, centipedes) and weeds. Field area or row application by soil injection or sprinkler injection. Treat seed, plant beds, and potting soil by different methods. Penetration and effectiveness is improved by water seal. Repeated applications may encourage bacteria that degrade this chemical faster.  Discontinued.  For control of ooymcetes in many crops.  Labeled for tree fruit, nuts, and turf.
Messenger harp metalaxyl Rido Acqu metam-sodium Vapa  Metapicrin chlo MetaStar meta metconazole Qua Meteor ipro metrafenone Viva methyl bromide Bror Tri-o	rpin  domil, Subdue, Apron Allegiance, quire, MetaStar, (Obvius)  pam HL, Metam CLR  oropicrin  etalaxyl  nash, Tourney odione	A C, Fs, P, S  E, F, Fum, I, Nem  Bact, F, Fum, I, Nem Fs, N, P, S B-N, C, F, Ls, P F, N-B, P	4 3	Discontinued name.  Best control of oomycetes if resistance is not yet a problem. May have curative properties, but using it that way encourages resistance to the chemical.  Restricted-use materials. Soil disinfectant for soil fungi, nematodes, soil insects (wireworms, centipedes) and weeds. Field area or row application by soil injection or sprinkler injection. Treat seed, plant beds, and potting soil by different methods. Penetration and effectiveness is improved by water seal. Repeated applications may encourage bacteria that degrade this chemical faster.  Discontinued.  For control of ooymcetes in many crops.  Labeled for tree fruit, nuts, and turf.
metalaxyl Rido Acqui metam-sodium Vapa  Metapicrin chlo MetaStar metametconazole Qua Meteor iprometrafenone Viva methyl bromide Brometri-	oropicrin etalaxyl eash, Tourney odione	E, F, Fum, I, Nem  Bact, F, Fum, I, Nem Fs, N, P, S B-N, C, F, Ls, P F, N-B, P	4 3	Best control of oomycetes if resistance is not yet a problem. May have curative properties, but using it that way encourages resistance to the chemical.  Restricted-use materials. Soil disinfectant for soil fungi, nematodes, soil insects (wireworms, centipedes) and weeds. Field area or row application by soil injection or sprinkler injection. Treat seed, plant beds, and potting soil by different methods. Penetration and effectiveness is improved by water seal. Repeated applications may encourage bacteria that degrade this chemical faster.  Discontinued.  For control of ooymcetes in many crops.  Labeled for tree fruit, nuts, and turf.
Metapicrin chlo  MetaStar meta metconazole Qua  Meteor ipro- metrafenone Viva methyl bromide Bror Tri-	oropicrin etalaxyl lash, Tourney odione	Bact, F, Fum, I, Nem Fs, N, P, S B-N, C, F, Ls, P F, N-B, P	4 3	lem. May have curative properties, but using it that way encourages resistance to the chemical.  Restricted-use materials. Soil disinfectant for soil fungi, nematodes, soil insects (wireworms, centipedes) and weeds. Field area or row application by soil injection or sprinkler injection. Treat seed, plant beds, and potting soil by different methods. Penetration and effectiveness is improved by water seal. Repeated applications may encourage bacteria that degrade this chemical faster.  Discontinued.  For control of ooymcetes in many crops.  Labeled for tree fruit, nuts, and turf.
Metapicrin chlo  MetaStar meta metconazole Qua  Meteor ipro- metrafenone Viva methyl bromide Bror Tri-	oropicrin talaxyl ash, Tourney odione vando	Bact, F, Fum, I, Nem Fs, N, P, S B-N, C, F, Ls, P F, N-B, P	3	nematodes, soil insects (wireworms, centipedes) and weeds. Field area or row application by soil injection or sprinkler injection. Treat seed, plant beds, and potting soil by different methods. Penetration and effectiveness is improved by water seal. Repeated applications may encourage bacteria that degrade this chemical faster.  Discontinued.  For control of ooymcetes in many crops.  Labeled for tree fruit, nuts, and turf.
MetaStar meta metconazole Qua Meteor ipro- metrafenone Viva methyl bromide Bror Tri-	talaxyl nash, Tourney odione vando	Fs, N, P, S B-N, C, F, Ls, P F, N-B, P	3	For control of ooymcetes in many crops.  Labeled for tree fruit, nuts, and turf.
metconazole Qua  Meteor ipro metrafenone Viva methyl bromide Bror Tri-	ash, Tourney odione vando	B-N, C, F, Ls, P F, N-B, P	3	Labeled for tree fruit, nuts, and turf.
Meteor ipro- metrafenone Viva methyl bromide Brom Tri-	odione vando	F, N-B, P		
metrafenone Viva methyl bromide Brom Tri-o	vando		2	
methyl bromide Brom		E Lo N. D.	2	Active on several diseases such as Botrytis and Monilinia.
Tri-o	om-o-Gas, Terr-o-Gas	F, Ls, N, P	50	Active on fruit and hop powdery mildews.
methylcyclopropene Sma	-con	B, Bact, E, F, Fum, I, Nem		Odorless fumigant. Discontinued when classified as an ozone depleter under the Clean Air Act. Restricted use.
	artFresh	N		Prevents ethylene production in stored fruit so it helps control ripening and scald of apple among other things.
metiram Poly	yram	B, F, P	М3	Used to prevent downy mildews, anthracnose, rusts, leaf spots, and seedling damping-off.
Mettle tetra	raconazole	B-N, C, F, Ls, P	3	Labeled for grapes, cucurbits, and solaneous vegetables.
Micora man	ndipropamid	N, F, P	40	Ornamental fungicide for aerial oomycete management.
Microcop copp	oper sulfate	B, Bact, F, P	M1	Discontinued.
Microthiol Disperss sulfu	fur	F, I, P, V	M2	Good on powdery mildew.
Midas iodo	lomethane + chloropicrin	Fum, V		Discontinued.
Milban dode	demorph acetate	E, F	5	Discontinued.
MilStop pota	tassium bicarbonate	E, F	NC	Might be used to supplement a powdery mildew program. O
Mirage tebu	uconazole	B-N, C, F, Ls	3	Lawn and turf label for this fungicide.
Miravis pydi	liflumetofen	F, P	7	Label for peanut and fruit crops.
Miravis Ace pydi	liflumetofen + propiconazole	B-N, C, F, Ls, P	7 +3	Label just for cereal grains.
Miravis Ace A pydi	liflumetofen	F, P	7	Cereal label to start.
Miravis Ace B prop	ppiconazole	B-N, C, F, Ls, P	3	Cereal label to start.
Miravis Duo pydi	diflumetofen + difenconazole	B-N, C, F, Ls, P	7 +3	Fruits and nuts label.
	diflumetofen + propiconazole + oxystrobin	B-N, C, F, Ls, P	3	Broad-spectrum fungicide for vegetables and row crops.
Miravis Prime pydi	diflumetofen + fludioxonil	F, B-N, P	7 + 12	Fruit, potato, and vegetable label to start.
MiravisTop pydi	liflumetofen + difenconazole	B-N, C, F, Ls, P	3 + 7	Broad-spectrum fungicide for dry beans and certain vegetables.
Mocap etho	oprop	B, E, I, Nem		Action on contact; must be mixed with soil or carried by water into soil.
MoldBlock SOP	PP	F	NC	Fungicide used in pear-processing dump tanks.
Moncut fluto	tolanil	F, P	7	In-furrow use for potatoes for control of Rhizoctonia. 24-C label for bulbs in WA.
Monsoon Turf tebu	uconazole	B-N, C, F, Ls, P	3	For use on ornamentals and golf courses.
Monterey Complete Baci Disease Control	cillus amyloliquefaciens strain D747	F, P	BM02	Biological for use in the home garden. H O

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Monterey Fungi-Fighter	propiconazole	B-N, C, F, Ls, P	3	Discontinued.
Monterey Liqui-Cop	copper diammonia diacetate complex	B, Bact, F	M1	Home label for many diseases. H
Morestan	oxythioquinox	F, I		<b>Discontinued</b> . Insecticide with some activity against powdery mildews.
MossMax	ferrous sulfate	C, N	NC	Kills moss on contact but can stain cement drive ways and sidewalks.
Moss Out	ferrous sulfate	C, N	NC	Kills moss on contact but can stain cement drive ways and sidewalks.
Moss Terminator	ferrous sulfate	C, N	NC	Kills moss on contact but can stain cement drive ways and sidewalks.
Mozart TR	fludioxonil	F, N, P	12	Discontinued.
M-Pede	fatty acids (soap)	E, F, I, P		Used mostly for soft-bodied insects but with good activity against powdery mildews. O
Mural	solatenol (benzovindiflupyr) + azoxystrobin	B-N, F, Ls, P	7 + 11	Third generation group 7 material, both materials have slow uptake.
Muscle	tebuconazole	B-N, C, F, Ls, P	3	For rust and powdery mildew control in grasses grown for seed.
myclobutanil	Rally, Systhane, Nova, Eagle Immunox, Laredo	B-N, C, F, Ls, P	3	Used for scab and powdery mildew. Resistance beginning to show up throughout PNW.
Mycoject	oxytetracycline	Bact, P	41	Used for tree injection against bacterial and phytoplasma diseases.
MycoShield	oxytetracycline	Bact, P	41	Antibiotic used on pears against fire blight.
Mycostop	Streptomyces griseoviridis strain 61	F, P	BM02	Biological seed, transplant or cutting dip for several crops. O
Mylone	dazomet			Discontinued.
MZ Curzate	mancozeb + cymoxanil	F, P	M3 + 27	Potato seed piece treatment for suppression of <i>Fusarium</i> , dry rot and spread of <i>Phytophthora infestans</i> between seed-pieces.
natamycin	BioSpectra	B, P, F	48	Fermentation product of <i>Streptomyces</i> spp. Active against fungi but nontoxic to humans. Unstable in UV light.
Natria Disease Control RTU	Bacillus subtilis strain QST 713	F, P	BM02	Home label for this biocontrol. OK for powdery mildew control. H O
Navicon	me fent riflucon azole + pyraclostrobin	B-N, C, F, Ls, P	3 + 11	Turf label.
Neem oil	Trilogy, Triact, Garden Defense, Rango	E, F, I, N, P	NC	Botanic oil active on powdery mildews. O
Nemacur	fenamiphos	C, Nem, S		Discontinued.
Nema Q	saponins	,	NC	Botanical extract from ${\it Quillaja\ saponaria}$ for suppression of neamtodes
Nemasol	metam-sodium	E, F, Fum, I, Nem		Discontinued name.
Nevado	iprodione	F, N-B, P	2	Discontinued.
Nexy	Candida oleophila strain O	N, F, P	NC	Biological for postharvest dip or drench of apples and pears against gray and blue mold.
Nimitz	fluensulfone	Nem		Post plant nematacide for use on vegetables and strawberries.
Nogall	Agrobacterium radiobacter	Bact, P	NC	New strain of the bacterium for crown gall. O
Norbac	Agrobacterium radiobacter	Bact, P		Discontinued.
Nordox	cuprous oxide	B, Bact, F, P	M1	Activity similar to other copper products. O
Nortica	Bacillus firmus strain I-1582	F, P	NC	Discontinued.
Nova	myclobutanil	B-N, C, F, Ls, P	3	Discontinued name.
Nu-Cop	copper hydroxide	B, Bact, F, P	M1	Good fungicide and bactericide for many diseases. Was called Blue Shield.
Nutrol	potassium dihydrogen phosphate	E, F	NC	Similar to potassium bicarbonates in fungicidal activity.
Nuzone	imazalil	F, S	3	Discontinued.

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Obtego	Trichoderma asperellum + T. gamsii	F, P	BM02	Biological for ornamental world.
Obvius	metalaxy + fluxapyroxad + picoxystrobin	B, F, Ls, P	4 + 7 + 11	Fungicide seed treatment combination for field crops.
OHP 26 GT-O	iprodione	F, N-B, P		Discontinued name.
OHP 6672	thiophanate-methyl	B, F, P, S	1	Ornamental label for a benomyl-like product.
Omega	fluazinam	F, P	29	Labeled for use on potato for <i>Phytophthora</i> and <i>Sclerotinia</i> diseases.
Organocide Plant Doctor	phosphorous acid	A, Fs, N, P, S	P7	Discontinued.
Orius	tebuconazole	B-N, C, F, Ls, P	3	Discontinued.
Orkestra	fluxapyroxad + pyraclostrobin	B-N, F, Ls, P	7 + 11	Ornamental label.
Ornalin	vinclozolin	F, Ls, P		Discontinued.
Orondis Gold	oxathiapiprolin + mefenoxam	F, Fs, P, S	4+49	Combination product for oomycetes.
Orondis Opti	chlorothalonil + oxathiapiprolin	B, F, P	M5 + 49	Fungicide for vegetables, ginseng and ornamental for use on downy mildews.
Orondis Ultra	oxathiapiprolin + mandipropamid	N, P	49 + 40	Premixed fungicide for vegetables to control oomycetes such as downy mildew.
Ortho Rose & Flower Disease Control	triticonazole	B-N, C, F, Ls, P	3	Home label for slightly different DMI in this market.
Orthorix	lime sulfur	B, E, F, I		<b>Discontinued</b> name changed to Sulforix.
Orvego	dimethomorph + ametoctradin	F, P	40 + 45	Ornamental fungicide for oomycete management.
Oso	polyoxin D	F	19	Liquid formulation of this active ingredient. O
oxadixyl	Anchor	F, N, S		Discontinued.
oxathiapiprolin	Segovis Orondis Gold (Orondis Opti, Orondis Ultra)	N, F,	49	Active on oomycetes.
oxamyl	Vydate, Return	I, Nem		For certain insects, mites, and/or nematodes. Restricted use.
OxiDate	peroxide	B, D		Disinfectant with very short residual activity. Registered like fungicides but do not use it that way.
OxiPhos	phosphorous acid + peroxide	A, B, D, Fs, N, P, S	P7	Another material in this class with activity on oomycetes with the added disinfectant activity of peroxide.
oxycarboxin	Plantvax, Carboject	F, Ls, N	7	Foliar application for rusts in greenhouses or shadehouses.
oxytetracycline	Myco-Shield, Fireline, Arbor-OTC	Bact, P	41	Antibiotic for fire blight on pear.
oxthioquinox	Morestan	F, I		Discontinued.
Pageant	pyraclostrobin + boscalid	B, F, Ls, P	11 + 7	Combination product for ornamental markets.
Paladin	dimethy disulfide	B, E, F, Fum, I, Nem		Discontinued.
Palladium	fludioxonil + cyprodinil	F, B, P	12 + 9	Combination material for control of $\it Botrytis$ and $\it Rhizoctonia$ in ornamentals.
parinol	Parnon			Discontinued.
Parnon	parinol			Discontinued.
PathGuard	chlorothalonil	B, F, P		Discontinued.
PathoCURB	thyme oil	E, F, I, P	NC	Oils are good for powdery mildew eradication. Don't mix with sulfur.
Pear Wrap	ethoxyquin + copper	N, P	M1	Paper wrapped around pear fruit to prevent scald.
Pegasus	chlorothalonil	B, F, P	M5	Another generic of a great fungicide.
Penbotec	pyrimethanil	F, N, P	9	Fungicide labeled for use on pome fruits postharvest.
Penncozeb	mancozeb	B, F, P	M3	General fungicide used on several crops to control many diseases.
pentachloronitroben- zene (PCNB)	Terraclor, Turfcide, Engage Defend, Blocker	B, F, P	14	Soil fungicide and seed dressing agent. Controls many soil fungi, storage rots, damping-off, and smut.
Pentathlon	mancozeb	B, F, P	M3	Discontinued.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
penthiopyrad	Fontelis, Vertisan, Velista	B, F, P	7	Use on fruits and vegetables for management of many leaf spots, powdery mildew and fruit rots.
Pentra-Bark	polyalkylene modified heptamethyltrisiloxane			Surfactant that purports to penetrate bark.
peroxide	OxiDate, TerraCyte, ZeroTol, Jet-Ag	B, D		Disinfectants with short residual activity. Can be used on plants, soil or inanimate objects such as greenhouse benches or irrigation lines.
PERpose Plus	peroxides	B, D	NC	Labeled as an algaecide and fungicide.
Phaltan	folpet			Discontinued.
Ph-D	polyoxin D	F	19	Label for fruiting crops.
Phospho Jet	phosphorous acid	A, Fs, N, P, S	P7	Inject into trees to control oomycetes such as <i>Phytoph-thora ramorum</i> .
Phosphorous Acid	Fosphite, Alude, Agri-Fos Phostrol, Topaz, ArborFOS, Fungi-phite, and more	A, Fs, N, P, S	P7	Activity against oomycete fungal-like organisms. Not a fertilizer. O
Phostrol	phosphorous acid	A, Fs, N, P, S	P7	Active against oomycete fungal-like organisms.
Physan 20	quaternary ammonium	D		Disinfectant with an over the plant label.
Phyton 27	tannate complex of picro cupric ammonium formate	B, Bact, F, P	M1	Copper product with many labeled uses.
Pic-Brom	methy bromide + chloropicrin	Bact, F, Fum, I, Nem		Restricted-use material. Soil fumigant.
Pic-Clor	dichloropropene + chloropicrin	Bact, F, Fum, I, Nem		Restricted-use material. Soil fumigant.
picoxystrobin	Aproach (Obvius)	B, F, Ls, P	11	For control of a range of foliar pathogens in field crops including canola, cereal grains except rice, sorghum, corn, dried legume vegetables, and soybean and hazelnuts.
Pillar	triticonazole + pyraclostrobin	B, C, F, Ls, P	3 + 11	Combination fungicide for use on turfgrass.
Pinpoint	mandestrobin	B, F, Ls, P	11	Turfgrass label.
piperalin	Pipron	F, N	5	Ornamental fungicide for powdery mildew.
Pipron	piperalin	F, N	5	Ornamental fungicide for powdery mildew.
PlantShield	Tricoderma harzianum Rifai strain T-22	F, P	BM02	Discontinued.
Plantvax	oxycarboxin	F, Ls, N	7	Discontinued.
PMA	phenylmercury acetate			Discontinued.
Polyoxin D	Endorse, Veranda, Ph-D, Affirm, OSO	F	19	Antibiotic active against certain fungi and bacteria.
Polyram	metiram	B, F, P	M3	Ethylenebis-dithiocarbamate (EBDC)-type fungicide.
Polysul	lime sulfur	B, E, F, I		Discontinued.
Posterity	pydiflumetofen	F, P	7	Turf label only.
Postiva	pydiflumetofen + difenconazole	B-N, C, F, Ls, P	7 + 3	Label for ornamentals, conifers, Christmas trees and greenhouse-grown vegetables.
potassium bicarbonate	Armicarb, Kaligreen, Remedy, MilStop	E, F	NC	Has activity against powdery mildew, but do not believe any claims for black spot of rose.
PreFence	Streptomyces sp. strain K61	F, P	BM02	Discontinued.
Premion	PCNB + tebuconazole	3+14		Turfgrass label.
Preplant Soil Fumi- gant	methy bromide + chloropicrin	Bact, F, Fum, I, Nem		Restricted-use material. Soil fumigant.
Presidio	fluopicolide	F, N, P	43	For control of oomycetes in vegetables and grapes. Prone to resistance problems so must be tank-mixed.
Prestop	Gliocladium catenulatum strain J1446	F, P	BM02	Biological formulation applied to soil, planting medium, or as a spray to plants prior to the presence of any harvestable food portions to control a range of soilborne and foliar pathogens on a range of crops. O
Prev-Am	borax	I, P		Label for insects, powdery mildew, and has activity some other fungi.
Previa	chlorothalonil	B, F, P	M5	Label for turf and landscape trees.
Previcur	propamocarb	F, P	28	Systemic fungicide for mix with contact fungicide to use for control of potato late and early blights.
Previsto	copper hydroxide	B, Bact, F	M1	Copper hydroxide in a matrix with Alginate. Has done well against fire blight.

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Prevont	Bacillus subtilis strain IAB/BS03	A, B-N, F	BM02	Biological renamed Aviv and Fungisei.
Priaxor Xemium	fluxapyroxad + pyraclostrobin	B, F, P, C, Ls	7 + 11	Broad-spectrum fungicide combination labeled for various vegetable and field crops.
Pristine	pyraclostrobin + boscalid	B, F, Ls, P	7 + 11	Combination product from BASF registered on fruit and vegetables.
ProAct	Harpin protein	A	NC	Stimulates disease suppression system, labeled for in row crops.
Problad	BLAD	F	BM01	Registered for fruits and vegetables.
Problad Verde	BLAD	F	BM01	Registered for fruits and vegetables. See Fracture.
ProCon-Z	propiconazole	B-N, C, F, Ls, P	3	Another generic for this popular material.
Procure	triflumizole	B-N, C, F, Ls, P	3	For grapes and pears.
ProGibb	gibberellic acid	Growth regulator	NC	Plant hormone used to change growth of plants for aesthetic and disease control reasons (grapes).
prohexadione calcium	Apogee	Growth regulator		Labeled for apple to slow down or minimize shoot growth and thus susceptibility to fire blight.
Proline	prothioconazole	B-N, C, F, Ls, P	3	Field crop label and some fruits. Great on <i>Monilinia</i> . Phytotoxicity on hazelnuts.
Prolivo	pyriofenone	F, Ls, N, P	50	Useful on cucurbit and fruit powdery mildews.
Pro-Mix BX	Bacillus pumilus strain GHA180	A, B-N, F	BM02	Potting mix of sphagnum peat moss, other materials and the bacteria already incorporated into the mix. The mycorrhizae fungus <i>Glomus intraradices</i> is also incorporated for enhanced nutrient uptake.
propamocarb	Previcur, Tattoo, Banol Proplant (Stellar)	F, P	28	Systemic fungicide to mix with contact fungicide to use for control of potato late and early blights. Ornamental labels are Banol and Proplant
ProPensity	propiconazole	B-N, C, F, Ls, P	3	Discontinued.
ProPhyt	phosphorous acid	A, Fs, N, P, S	P7	Useful for oomycetes.
propiconazole	Alamo, Tilt, Banner, Bumper, Propi- Max, Ferti-lome Systemic Fungicide, (Concert) and many others	B-N, C, F, Ls, P	3	Has systemic and eradicative properties. Also growth regulation activity on a number of crops. Phytotoxicity on hazelnuts.
PropiMax	propiconazole	B-N, C, F, Ls, P	3	Popular fungicide with systemic and eradicant properties.
Propizol	propiconazole	B-N, C, F, Ls, P	3	Generic product for injection into trees.
Proplant	propamocarb	F, P	28	Ornamental label registered for control of oomycetes.
Propulse	fluopyram + prothioconazole	B, F, Ls, P	3 + 7	Field crops and small fruit label.
ProStar	flutolanil	F, S	7	Used for turf diseases only.
Protect	mancozeb	B, F, P	M3	Ornamental fungicide used on many crops to control many diseases. More ornamentals listed than on other similar labels.
Protégé	azoxystrobin	F, P	11	Discontinued name.
Pro-tex	maneb + triphenyltin hydroxide	F, P	M3 + 30	Potato early and late blight, Cercospora leaf spot of sugar beet. Restricted use.
Protexio	fenpyrazamine	F, N, P	17	For use against Botrytis and related fungi. Although reigistered it is not manufactured due to a garlic smelling residue on fruit crops.
prothioconazole	Proline, Densicor, (Propulse)	B-N, C, F, Ls, P	3	DMI material for field and fruit crops. Phytotoxicity on hazelnuts.
Protocol	propiconazole + thiophanate-methyl	B, C, F, Ls, P, S	1+3	Broad label for a different combination of fungicides.
Provysol	mefentrifluconazole	B-N, C, F, Ls, P	3	Labeled for various vegetables and field crops.
PureCrop1	Soybean and corn oils	B-N, F, I	NC	Botanical oils are active on powdery mildews.
pydiflumetofen	Posterity, Miravis Ace A, Saltro, Postiva, (Miravis Duo, Miravis Neo, Miravis Top)	F, P	7	Starting out on many crops.
Pylon	chlorfenapyr	I, Nem		An ornamental miticide with activity against foliar nematodes.
pyraclostrobin	Empress, Cabrio, Headline, Insignia, Stamina, (Pristine, Merivon, Honor, Pillar, Orkestra)	B, F, Ls, P	11	Next generation strobilurin after kresoxim-mthyl. Better activity on numerous diseases.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
pyrimethanil	Penbotec, Scala, (Luna Tranquility)	F, N, P	9	Fungicide used for Botrytis and Monilinia control and postharvest on pome fruit.
pyriofenone	Prolivo, Seido	F, Ls, N, P	50	Useful on cucurbit and fruit powdery mildews.
Quadris	azoxystrobin	B, F, Ls, P	11	Effective strobilurin compounds, active against a very large number of fungi.
Quadris Opti	azoxystrobin + chlorothalonil	B, F, P	11 + M5	Broad-spectrum fungicide for vegetables.
Quadris Ridomil Gold	azoxystrobin + mefenoxam	B, F, Fs, Ls, P, S	11 + 4	Broad-spectrum fungicide for potatoes.
Quadris Top	difenconazole + azoxystrobin	B-N, C, F, Ls, P	3 + 11	Combinations product for vegetables and tree fruit.
quaternary ammonium	KleenGrow, Phsan 20	D		Disinfectants that can be used over the plant. No residual so use often.
Quash	metconazole	B-N, C, F, Ls, P	3	Labeled at first for tree fruit and nuts.
Quell	metalaxyl	C, Fs, P, S		Discontinued name.
Quilt and Quilt Xcel	azoxystrobin + propiconazole	B, F, Ls, P	11 + 3	A combination fungicide for stone fruit, cereals, and grass-for-seed disease control.
quinoxyfen	Quintec	F, N, P	13	For control of only powdery mildews in general. Good on hop, however, ineffective on apple powdery mildew.
Quintec	quinoxyfen	F, N, P	13	For control of only powdery mildews in general. Good on hop, however, ineffective on apple powdery mildew.
Rally	myclobutanil	B-N, C, F, Ls, P	3	Fungicide with systemic and eradicative. properties. Excellent against powdery mildew diseases but resistance becoming a problem.
Rampart	phosphorous acid	A, Fs, N, P, S	P7	Another material in this class with activity on oomycetes. Can be trunk injected.
Rancona	ipconazole	B, F P	3	Seed treatment for a broad range of crops.
Rango	neem oil	E, F, I, N, P	NC	Botanic oil registered on many crops.
Ranman	cyazofamid	N, F, Ls, P	21	Activity against oomycete fungal-like organisms.
Rayora	flutriafol	B-N, C, F, Ls, P	3	Turf label.
Raxil	tebuconazole	B-N, C, F, Ls, P	3	Labeled as a seed treatment.
Raxil MD	tebuconazole + metalaxyl	B, C, F, Ls, P	3 + 4	Labeled as a seed treatment for control of various seed- borne and soilborne diseases in cereals.
Reach	chlorothalonil + triadimefon	B, C, F, Ls, P		Discontinued.
Reason	fenamidone	F, P	11	Effective against certain foliar diseases in vegetable crops.
Regalia	Extract of Reynoutria sachalienensis	A	P5	Activator of plant resistance. Labeled for ornamentals, fruit, hop, herbs, nut, and vegetable crops.
Regev	difenconazole + Tee Tree Oil	B-N, C, F, Ls, P	3 + BM01	Good group 3 material for many diseases but not sure what the oil is for beyond as a surfactant and/or for resistance management on powdery mildew.
Regime	BLAD	F	BM01	Registered for ornamentals.
Reliant	phosphites	A, Fs, N, P, S	P7	Generic label for many crops and ornamentals.
ReLoad	phosphites	A, Fs, N, P, S	P7	Discontinued name.
Remedy	potassium bicarbonate	E, F	NC	Discontinued name.
Renown	chlorothalonil + azoxystrobin	B, F, Ls, P	M5 + 11	Turf label.
Return	oxamyl	I, Nem		Restricted use material. For certain insects, mites and/or nematodes.
Revus	mandipropamid	N, F, P	40	For control of some ooymcetes like downy mildew, but not Pythium, in certain vegetables and grapes.
Revus Top	mandipropamid + difenoconazole	B, F, P, S	3 + 40	For control of many diseases in tomato and potato.
Rhapsody	Bacillus subtilis strain QST 713	F, P	BM02	Ornamental label for this biocontrol product. Protein in culture filtrate is actual active ingredient. O
Rhizopro	Bacillus subtilis var. amyloliquefaciens strain FZB24	A	BM02	Discontinued.
Rhyme	flutriafol	B-N, C, F, Ls, P	3	Registered for control of foliar diseases in nuts, fruits, hops, and certain vegetable crops.
Ridomil	metalaxyl	Fs, P, S	4	Active against oomycetes when resistance is not a problem.
Ridomil Gold	mefenoxam	Fs, P, S	4	The biologically active R-enantiomer of metalaxyl.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Ridomil Gold Bravo SC	mefenoxam + chlorothalonil	B-N, Fs, P, S	4 + M5	Prepacked mix for vegetable crops in the field.
Ridomil Gold Copper	mefenoxam + copper hydroxide	B-N, Fs, P, S	4 + M1	Prepacked mix for downy mildews.
Ridomil Gold MZ	mefenoxam + mancozeb	B-N, Fs, P, S	4 + M3	Prepacked mix for downy mildews.
Romeo	cerevisane	A, P	NC	Cell walls of <i>Saccharomyces cerevisiae</i> strain LAS 117 (Brewer's yeast) that stmulates host dewfense mechanisms. O
Ronilan	vinclozolin	B-N, F, Ls, P	2	Discontinued.
RootShield	<i>Trichoderma harzianum</i> Rifai strain T-22	F, P	BM02	Biological for various root diseases. H O
RootShield Plus	Trichoderma harzianum and Trichoderma virens	F, P	BM02	Biocontrol labeled for a range of crops. O
Roper	mancozeb	B, F, P	M3	Broad-spectrum fungicide for fruit and vegetables.
Rovral	iprodione	B-N, F, Ls, P	2	Good fungicide against Botrytis if resistance is not a problem.
Rubigan	fenarimol	B-N, C, F, Ls, P	3	Discontinued.
Safer Garden Fungicide	sulfur	F, I, P, V	M2	Home label and packaging. Good on powdery mildew. H O
Saf-T-Side	refined petroleum distillate (oil)	E, F, N, P	NC	Discontinued.
Salibro	fluazaindolizine	Nem	N-UN	A novel, non-fumigant chemical nematicide for cucurbits, fruiting vegetables, carrots, potatoes, tree nuts, sweet potatoes, and other crops. May be applied using drip or micro-sprinkler irrigation, drench or soil spray followed by irrigation.
Saltro	pydiflumetofen	F, P	7	Labeled as a seed treatment for rapeseed, other oilseed crops, and soybean with activity against <i>Leptosphaeria</i> and <i>Fusarium</i> .
Scala	pyrimethanil	F, N, P	9	Used for Botrytis and Monilinia control.
Scholar	fludioxonil	F, N, P	12	Postharvest label for stone fruits. Degraded by direct sunlight.
Secure	fluazinam	B, F, P	29	Lawn and turf label for tank-mixing in with fungicides at risk for resistance development.
Seido	pyriofenone	F, Ls, N, P.	50	Ornamental label for powdery mildew management.
Segovis	oxathiapiprolin	N, F, S	49	Ornamental label for use against downy mildews and aerial and soilborne <i>Phytophthora</i> diseases.
Segway	cyazofamid	N, F, Ls, P	21	Ornamental fungicide for downy mildews and aerial Phytophthoras.
Sentinel	cyproconazole	B-N, C, F, Ls, P		Discontinued name.
Sequestrene 138	chelated iron	Adjuvant		Tank-mixed with BlightBan for better control of fire blight than with BlightBan alone.
Serenade	Bacillus subtilis strain QST 713	F, P	BM02	Biological labeled for gray mold, powdery mildews, and other foliar diseases on many crops. Has had variable testing results. H O
Serifel	Bacillus amyloliquefaciens strain MBI 600	F, P	BM02	Biological registered for "suppression" of many diseases.
Sextant	iprodione	F, N-B, P		Discontinued name.
Shepherd	propiconazole	B-N, C, F, Ls, P	3	Label for tree injection.
Signature	fosetyl-Al	A, Fs, N, P, S	P7	Same as Aliette but with a green pigment included for the turf market.
Sil-Matrix	potassium silicate	F, I		General label for use on many crops. Do not use on open blooms of ornamentals.
SmartFresh	methylcyclopropene (1-MCP)	N		Prevents ethylene production in stored fruit so it helps control ripening and scald of apple among other things.
sodium hypochlorite	Clorox, Agclor	Bact, E, F		Bleach has a number of disinfectant uses.
sodium metabisulfite	Uvasys	B, F, Fum, V	M2	Used as a disinfectant, antioxidant, and preservative agent. In pads for blueberry export market.
SoilGard	Gliocladium virens	F, P	NC	Biological for damping-off organisms. O

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Soil-Prep	metam-sodium	E, F, Fum, I, Nem		Discontinued name.
solatenol (benzovindiflupyr)	Aprovia (Mural, Elatus)	B-N, F, Ls, P	7	Third generation group 7 material, slow uptake. Trademark name for benzovindiflupyr.
Sonata	Bacillus pumilis strain QST 2808	F, P	NC	Biocontrol product labeled for several diseases including powdery mildew. O
Sonoma	myclobutanil	B-N, C, F, Ls, P	3	Discontinued.
SOPP	Stri-Seal, MoldBlock	F		Fungicide used in pear-processing dump tanks.
Sovran	kresoxim-methyl	B, F, Ls, P	11	Fruit label for a strobilurin compound. Phytotoxic on a few cherry cultivars such as Van.
Sparra	phosphorous acid	A, Fs, N, P, S	P7	Activity against oomycete fungal-like organisms. Not a fertilizer.
Spectracide Immunox	myclobutanil	B-N, C, F, Ls, P	3	An effective fungicide for the home market.
Spectro	chlorothalonil + thiophanate-methyl	B, F, Ls, P	M5 + 1	Ornamental label for a combination of two good fungicides.
Spirato GHN	fludioxonil	F, N, P	12	Fungicide with an ornamental label that can be used in greenhouse and many other sites.
spiroxamine	Accrue	F, N, P	5	Discontinued.
Sporan	Rosemary oil + clove oil + thyme oil	E, F, I	BM01	Botanicales good for organic powdery mildew control.
Sporax	borax	F, N, P		Discontinued.
Spot-Less	Pseudomonas aureofaciens	F	NC	Discontinued.
Spotrete	thiram	B, F, P	M3	Fungicide used for a few diseases but mostly as an animal repellent.
Spur Shield	cyclohexane polymer	P	NC	Wound sealant.
Stamina	pyraclostrobin	B, F, Ls, P	11	Seed treatment of cereals and legumes to control a broad spectrum of fungal diseases.
Stargus	Bacillus amyloliquefaciens strain F727	F, P	44	Broad spectrum biological for vegetable, small fruit, and ornamental crops. O
Stature	dimethomorph	F, P	40	Ornamental label to control downy mildews.
Stellar	fluopicolide + propamocarb hydrochloride	N, F	28 + 43	Turf label for Pythium management.
Stratego	propiconazole + trifloxystrobin	B, C, F, Ls, P	3 + 11	Prepackaged fungicide mix for select markets.
streptomycin	Agri-Mycin, Harbour	Bact, P	25	Antibiotic; controls a number of commercially important bacterial plant pathogens including fire blight.
Streptrol	streptomycin	Bact, P	25	Discontinued.
Strider	propiconazole	B-N, C, F, Ls, P	3	Generic of a popular fungicide.
Strike	triadimefon	B-N, C, F, Ls, P	3	Discontinued.
Strike Plus	triadimefon + trifloxystrobin	B-N, C, F, Ls, P	3 + 11	Discontinued.
Stri-Seal	SOPP	F		Fungicide used in pear-processing dump tanks.
Subdue	metalaxyl	C, Fs, P, S	4	Controls oomycetes if resistance has not occurred.
Subdue MAXX	mefenoxam	Fs, P, S	4	The biologically active R-enantiomer of metalaxyl.
Subtilex	Bacillus subtilis stain MBI 600	F, P	BM02	Biological registered for several fungal root pathogens and powdery mildew. O
SuffOil-X	Petroleum oil	F, I		Has powdery mildew on the label.
Sulforix	lime sulfur	B, E, F		New name instead of Orthorix.
sulfur	Kumulus, Microthiol Disperss, Cosavet, (Unicorn)	F, I, P, V	M2	Sulfur is likely to injure plants above 85°F to 90°F. Effectively controls a variety of plant diseases especially powdery mildew. Do not use with oils.
Superior Oils	refined petroleum distillate (oil)	E, F, N, P	NC	Developed for summer orchard use and low phytotoxicity. These oils have a high content of paraffinic hydrocarbons with relatively small amounts of aromatic and naphthenic constituents. Use for insect and powdery mildew control as well as spray adjuvants.
Super Tin	ТРТН	F, N, P	30	Used for early and late blight of potato. Restricted use.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Switch	cyprodinil + fludioxonil	F, B, P	9 + 12	The combination gives better Botrytis control and resistance management than either one of the ingredients does alone. Labeled for control of other diseases including powdery mildew.
Syllit	dodine	B, F, P	U12	Used for a number of diseases such as apple scab and sycamore anthracnose.
Systec	thiophanate-methyl	N-B, F, P	1	Discontinued name.
System 3	Bacillus subtilis strain GB03 + Apron and Terraclor	F, P	NC + 4 + 14	Seed treatment.
Systhane	myclobutanil	B-N, C, F, Ls, P	3	Discontinued.
Systox	demeton			Discontinued.
Tachigaren	hymexazole	?	32	Seed treatment for sugar beets.
Taegro	Bacillus subtilis var. amyloliquefaciens strain FZB24	A	BM02	Biocontrol product targeting <i>Rhizoctonia</i> and <i>Fusarium</i> . O
Tanos	famoxadone + cymoxanil	F, Ls	11 + 27	Labeled for hop and grape downy mildew, some
Tartan	triadimefon + trifloxystrobin	B-N, C, F, Ls, P	3 + 11	Control of certain foliar, stem, and root diseases of foliar diseases of vegetable crops. turfgrass including golf courses, sod farms, and sports fields.
Tattoo C	propamocarb hydrochloride + chloro- thalonil	F, P	28 + M5	For potato late blight.
Tavano	polyoxin D	F	19	Discontinued.
TCMTB	Busan 30 A	F		Fungicide seed treatment.
Tebucon	tebuconazole	B-N, C, F, Ls, P	3	One of many generics.
tebuconazole	Toledo. Raxil, Tebuject, Orius, Bayer Advanced, Tebucon, Tebuzol, Tebustar (Luna Experience) and many others.	B-N, C, F, Ls, P	3	For fruit, grass seed, and ornamentals.
Tebuject	tebuconazole	B-N, C, F, Ls, P	3	Used for tree injection against a few diseases.
Tebusha	tebuconazole	B-N, C, F, Ls, P	3	Discontinued.
Tebustar	tebuconazole	B-N, C, F, Ls, P	3	Fungicide for grasses grown for seed.
Tebuzol	tebuconazole	B-N, C, F, Ls, P	3	Flowable formulation of this DMI.
Tee-Off	thiophanate-methyl	B, F, P, S	1	Discontinued name.
Telone II	dichloropropene	B, E, Fum, Nem		Preplant for nematode, disease, insect, and weed control on a variety of crops. Harmful to crop plants and applied only as preplant to control nematodes. Do not apply in glasshouses containing plants. Apply year-round if soil conditions are suitable, overall or a row basis. Immediately seal soil surface by lightly compacting with roller or water. Do not plant any crop while any odor remains in the soil. If in doubt, aerate soil by cultivating a few days before planting. <b>Restricted use</b> .
Telone C-17	dichloropropene + chloropicrin	F, Fum		<b>Restricted use</b> . Preplant nematicide and soilborne fungicide.
Temik	aldicarb	I, Nem, S		Discontinued.
Tenet	Trichoderma asperellum and Trichoderma gamsii	F, P	BM02	For control of soilborne pathogens in various fruits, nuts, vegetables, field, ornamental crops, and turf. O
Terraclor	PCNB	B, F, P	14	Soil fungicide and seed treatment. Controls many soil fungi, storage rots, damping-off, and smut.
TerraCyte	peroxide	B, D		Discontinued.
TerraCyte Pro	sodium carbonate peroxyhydrate	E		Discontinued.
Terraguard	triflumizole	B-N, C, F, Ls, P	3	For ornamental disease problems such as powdery mildew.
Terranil	chlorothalonil	B, F, P	M5	Discontinued.
Terrazole	etridiazole	F, N	14	Soil drench ornamental fungicide to control <i>Pythium</i> and <i>Phytophthora</i> .
Terr-o-cide	methyl bromide			Discontinued name. Now called Terr-o-gas.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Terr-O-Gas	methy bromide + chloropicrin	Bact, F, Fum, I, Nem		Soil fumigant. Restricted-use material.
Tersan LSR	maneb			Discontinued.
Tersan SP	chloroneb			Discontinued.
Tersan 1991	benomyl			Discontinued.
Tesaris	fluxapyroxad	B, F, P, C	7	Stand-alone product for many crops.
tetraconazole	Mettle	B-N, C, F, Ls, P	3	Label starting out in grapes.
Tetrasul	lime sulfur	B, E, F, I		Discontinued.
Tetrathiocarbonate	Enzone	B, Fum, Nem, V		<b>Discontinued</b> . Breaks down to carbon disulfide in the soil and acts as a fumigant
Theia	Bacillus subtilis strain AFS032321	A, B-N, F	BM02	Activity on powdery mildews but label has typical broad list of crops and pathogens.
thiabendazole	Mertect 340-F, Arbotect 20-S, LSP Flowable Fungicide	F, P, S	1	A fungicide, controls many storage-rot fungi and leaf-spotting diseases.
Thiolux	sulfur	F, I, P, V		Effectively controls a variety of plant diseases, especially powdery mildew. Do not use with oils.
thiophanate	Bromosan, Spot Klean			Discontinued.
thiophanate-methyl	Cleary's 3336, TOPS, Topsin M, Cavalier, OHP 6672, T-Methyl	B, F, P, S	1	Activity like benomyl's: the plant converts both to carbendazim, which is the active fungicidal compound. Fungal resistance common and stable.
thiram	Spotrete, Thiram Granuflo, Defiant	B, F, P	M3	Fungicide, seed protectant, animal repellent. As seed protectant, reduces losses from seed decay, damping-off, and seedling blights caused by many seedborne and soilborne organisms.
Thiosperse	sulfur	F, I, P, V	M2	Discontinued.
Thynon	dithianon			Discontinued.
Tilt	propiconazole	B-N, C, F, Ls, P	3	Labeled for many crops.
Timber Fume	chloropicrin	Bact, F, Fum, I, Nem		Restricted-use material. Fumigant to control decay in wood.
T-Methyl	thiophanate-methyl	B, F, P, S	1	Converted in the plant to carbendazim, which is the active fungicidal compound.
TNC Biological Fungicide	Neem Oil + caprylic acid	E, F, I, N, P	NC	Discontinued name.
Toledo	tebuconazole	B-N, C, F, Ls, P	3	For rust and powdery mildew control in grasses grown for seed in the PNW.
Topaz	propiconazole	B-N, C, F, Ls, P	3	Another generic for this popular material.
Topguard	flutriafol	B-N, C, F, Ls, P	3	Labeled for grapes, pome fruits, stone fruits, and hop. Most systemic of the DMI's.
Topguard EQ	flutriafol + azoxystrobin	B-N, C, F,	3 + 11 Ls, P	Combination package of 2 fungicides.
Tops	thiophanate-methyl	B, F, P, S	1	Potato seed treatment.
TopShield	Trichoderma harzianum	F, P		Discontinued.
Topsin M	thiophanate-methyl	B, F, P, S	1	Converted in the plant to carbendazim, which is the active fungicidal compound.
Tops-MZ	thiophanate-methyl + mancozeb	B, F, P, S	1 + M3	Potato seed treatment.
Torino	cyflufenamid	F, P	U6	For powdery mildew on a few fruit, hop, and vegetable crops.
Torque	tebuconazole	B-N, C, F, Ls, P	3	One of many generics.
Touché	vinclozolin	F, Ls, N, P		Discontinued.
Tourney	metconazole	B-N, C, F, Ls, P	3	Turf and ornamental label.
TPTH	Super Tin	F, N, P	30	Used for early and late blight of potato. Restricted use.
Triact	neem oil	E, F, N, P	NC	Used as a fungicide on powdery mildews. Solidifies at $40^{\circ}\mathrm{F.~O}$
triadimefon	Strike, Bayleton (Armada, Strike Plus, Trigo)	B-N, C, F, Ls, P	3	Controls powdery mildew and rust diseases on many crops.

Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
triadimenol	Baytan	F, S	3	Seed treatment for smuts, rusts, and powdery mildews.
Triathlon BA	Bacillus amyloliquefaciens strain D747	F, P	BM02	Biological for suppression of a broad spectrum of diseases on agricultural crops, ornamental and nursery plants, and turfgrass.
Tri-Clor	chloropicrin I, Nem	Bact, F, Fum,		Restricted-use material. Soil fumigant.
Tri-Con	methy bromide + chloropicrin	Bact, F, Fum, I, Nem		Restricted-use material. Soil fumigant.
trifloxystrobin	Flint, Compass, (Armada, Strike Plus, Trigo)	B, F, Ls, P	11	A strobilurin compound effective against many fungi.
triflumizole	Terraguard, Procure Trionic	B-N, C, F, Ls, P	3	Fungicide used on ornamentals, pears, and grapes for powdery mildew and scab control.
triforine	Funginex, Cela W-524, Triforine, Saprol	B-N, F, Ls, P	3	For use against powdery mildew, scab, rust, and other diseases. Ag uses cancelled.
Tri-Form	dichloropropene + chloropicrin	Bact, F, Fum, I, Nem		Restricted-use material. Soil fumigant.
Trigo	triadimefon + trifloxystrobin	B-N, C, F, Ls, P	3 + 11	Discontinued.
Trinity	triticonazole	B-N, C, F, Ls, P	3	Fungicide for turf diseases. TR or total release formulation for greenhouse use.
Trilogy	neem oil	E, F, N, P, I	NC	Discontinued.
Trionic	triflumizole	B-N, C, F, Ls, P	3	Generic Procure for a few fruits and vegetables.
triticonazole	Charter, Trinity (Pillar)	B-N, C, F, Ls, P	3	Fungicide for turf diseases and wheat and barley seed treatment.
Trivapro	benzovindiflupyr + azoxystrobin + propiconazole	B, F, P	3 + 7 + 11	Broad-spectrum fungicide for cereals, corn, and soybean.
Truban	etridiazole	F	14	Used for damping-off and root rot caused by oomycetes.
Turfcide	PCNB	B, F, P	14	Turf label to control a few diseases.
Tutane	2-aminobutane			Discontinued.
T-22	Trichoderma harzianum	F, P	BM02	Discontinued.
Ultra-Shield	chlorine dioxide	B, D		Discontinued.
Unicorn	tebuconazole + sulfur	B-N, C, F	3 + M2	Discontinued name.
Uvasys	sodium metabisulfite	B, F, Fum, V	M2	Dual release pads used for blueberry export markets post-harvest only.
V-10208	ethaboxam	C, Ls, N, P, S	22	For oomycete-caused diseases in vegetables.
Vacciplant	laminarin	°A	P4	Wide range of crops it can be used on. Better activity on annuals than perennials.
Vangard	cyprodinil	C, Fs, Ls, N, P	9	Good activity on <i>Botrytis</i> and <i>Monilinia</i> . Fair on apple scab. Resistance could be a problem if overused.
Vapam HL	metam-sodium	E, F, Fum, I, Nem		Restricted use. Soil disinfectant for soil fungi, nematodes, soil insects (wireworms, centipedes), and weeds. Field area or row application by soil injection or sprinkler injection. Treat seed, plant beds, and potting soil by different methods. Penetration and effectiveness is improved by water seal.
VeggieTurbo	Polyoxin D	F	19	Discontinued.
Velista	penthiopyrad	B, F, P	7	Turf formulation for this fungicide.
Veltyma	mefentrifluconazole + pyraclostrobin	B-N, C, F, Ls, P.	3+11	Labeled for various vegetables and field crops.
Velum Prime	fluopyram	F, N, Nem	7	High rate of this fungicide is also nematicidal. Label is directed at nematodes and delivered via chemigation, drip or drench.
Veranda T	Polyoxin D	F	19	Turfgrass label.
Vertisan	penthiopyrad	B, F, P	7	Broad-sprectrum fungicide for many diseases in field crops.
Victus	Pseudomonas fluorescens	Bact	NC	Biological to control bacterial blotch in mushroom production.
vinclozolin	Ronilan, Ornalin, Touché, Vorlan	F, Ls, N, P	2	Discontinued.
Vintage	fenarimol	B-N, C, F, Ls	3	Discontinued.
Vintec	Trichoderma atroviride strain SC1	F, P	BM02	Pruning wound treatment for grapes and stone fruit. O

responses in plants. May be applied to all crops and has no preharvest interval or reentry interval requirements. Has been touted as a nematicide and bactericide. Activity has not been stellar.  Willowood Azoxy azoxystrobin B-N, C, F, Ls, P 11 Discontinued name.  Wingman mancozeb B, F, P M3 Discontinued name.  WRC-AP-1 Gliocladium virens F, P NC Discontinued name, see SoilGard.  Xeroton-3 hydrogen peroxide + peroxyacetic acid + octanoic acid + octanoic acid  Xzemplar fluxapyroxad B, C, F, P 7 Turfgrass label. Does not kill algae.  Zampro ametoctradin + dimethomorph F, P 45 + 40 Pungicide mixture for diseases caused by oomycetes in vegetables, hop, and grapes.  ZeroTol peroxide B, D Dissinfectant with very short residual activity. Registered like fungicides but do not use it that way.  Zen-O-Spore Ulocladium oudemansii strain U3 F, N, P NC Biofungicide for use on fruits and nuts against Botrytis diseases. O  Zineb Zineb Zineb B, F, P BM2 Biological fungicide for turf and ornamentals.  AFS009  Ziram Ziram, Ziram Granuflo B, F, P M3 Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbantes; none photoxic except for zim-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo Ziram Bhannolipid Biosurfactant B, F, P M3 Label for many diseases on many crops.	Common or Trade Name	Trade or Common Name	Action*	Fungicide Group#**	Use
Vitavax carboxin F, Ls, N 7 Seed treatment for small grains to control Rhizoctonia.  Vivando metrafenone F, Ls, N, P 50 Active on fruit powdery mildews.  Vorlan vindozolin F, Ls, N, P Discontinued.  Vorlan vindozolin F, Ls, N, P Discontinued.  Vydate oxamyl I, Nem For certain insects, mites, and/or nematodes. Restricted use.  Wakil fludioxonil, metalaxyl-M, and cymoxanil F, Ls, P 12 + 4 + 27 Seed treatment combination for pea seed crops. Cymoxanil  Warhammer Chitosan A, B NC Achitosan formulation that is an activator of host defense responses in plants. May be applied to all crops and has no preharvest interval or retently interval requirements. Has been touted as a nematicide and bactericide. Activity has not been stellar.  Willowood Azoxy azoxystrobin B-N, C, F, Ls, P 11 Discontinued name.  Wingman mancozeb B, F, P M3 Discontinued name.  Wingman mancozeb B, F, P M3 Discontinued name, see SoilGard.  Xeroton-3 hydrogen peroxide + peroxyacetic acid + octanoic acid  #Xeroton-3 hydrogen peroxide + peroxyacetic acid + octanoic acid  #Xeroton-3 ametoctradin + dimethomorph E, P 7 Turfgrass label. Does not kill algae.  Zampro ametoctradin + dimethomorph E, P 45 + 40 Fungicide mixture for diseases caused by comycetes in vegetables, hop, and grapes.  Zero l'ol peroxide B, D Disinfectant with very short residual activity. Registered like fungicides but do not use if that way.  Zero-Spore Udoladium oudemansii strain U3 E, N, P NC Biofungicide for use on fruits and nuts against Botry its diseases. O Discontinued.  Zineb Zineb Zineb B, F, P Discontinued.  Ziram, Ziram Granullo B, F, P M3 Used extensively to control shothole, brown rot, and peach fed curl. The most stable of the metallic dithiocantesis or properties	Vital	phosphorous acid	A, Fs, N, P, S	P7	Discontinued.
Vivando   metrafenone   F. I.S. N. P   50   Active on fruit powdery mildews.	Vitiseal	paint	P	NC	Paint for protection of pruning wounds.
Vorlan   vinclozolin   F, Is, N, P   Discontinued.	Vitavax	carboxin	F, Ls, N	7	Seed treatment for small grains to control Rhizoctonia.
Vydate   Oxamyl   I, Nem   Por certain insects, mites, and/or nematodes. Restricted use.	Vivando	metrafenone	F, Ls, N, P	50	Active on fruit powdery mildews.
Vydate   oxamyl   I. Nem   For certain insects, mites, and/or nematodes. Restricted use.	Vorlan	vinclozolin	F, Ls, N, P		Discontinued.
Wakil   fludioxonil, metalaxyl-M, and cymoxanil   B, F, Ls, P   12 + 4 + 27   Seed treatment combination for pea seed crops.	Vorlex	methyl isothicyanate			Discontinued.
Cymoxanil  Warhammer  Chitosan  A, B  NC  A chitosan formulation that is an activator of host defense responses in plants. May be applied to all crops and has no preharvest interval or reentry interval requirements. Has been touted as a nematicide and bactericide. Activity has not been stellar.  Wilngman  mancozeb  B, E, P  M3  Discontinued name.  WRC-AP-1  Gliocladium virens  E, P  NC  Discontinued name, see SoilGard.  Lots of uses but expect low residual.	Vydate	oxamyl	I, Nem		
responses in plants. May be applied to all crops and has no prehavest interval or reentry interval requirements. Has been touted as a nematicide and bactericide. Activity has not been stellar.  Willowood Azoxy azoxystrobin B-N, C, F, Ls, P 11 Discontinued name.  Wingman mancozeb B, F, P M3 Discontinued name.  WRC-AP-1 Gliocladium virens F, P NC Discontinued name, see SoilGard.  Xeroton-3 hydrogen peroxide + peroxyacetic acid + octanoic acid + octanoic acid  Xzemplar fluxapyroxad B, C, F, P 7 Turfgrass label. Does not kill algae.  Zampro ametoctradin + dimethomorph F, P 45 + 40 Fungicide mixture for diseases caused by oomycetes in vegetables, hop, and grapes.  ZeroTol peroxide B, D Disinfectant with very short residual activity. Registered like fungicides but do not use it that way.  Zen-O-Spore Ulocladium oudemansii strain U3 F, N, P NC Biofungicide for use on fruits and nuts against Botrytis diseases. O  Zineb Zineb Zineb B, F, P BM0 Biological fungicide for turf and ornamentals.  AFS009  Ziram Ziram, Ziram Granuflo B, F, P M3 Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbantes; non-phytoxiox except for zimc-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo Ziram B, F, P M3 Label for many diseases on many crops.	Wakil	•	B, F, Ls, P	12 + 4 + 27	Seed treatment combination for pea seed crops.
Wingman mancozeb B, F, P M3 Discontinued name.  WRC-AP-1 Gliocladium virens F, P NC Discontinued name, see SoilGard.  Xeroton-3 hydrogen peroxide + peroxyacetic acid + octanoic acid + octanoic acid  Xzemplar fluxapyroxad B, C, F, P 7 Turfgrass label. Does not kill algae.  Zampro ametoctradin + dimethomorph F, P 45 + 40 Fungicide mixture for diseases caused by oomycetes in vegetables, hop, and grapes.  ZeroTol peroxide B, D Disinfectant with very short residual activity. Registered like fungicides but do not use it that way.  Zen-O-Spore Ulocladium oudemansii strain U3 F, N, P NC Biofungicide for use on fruits and nuts against Botrytis diseases. O  zineb Zineb B, F, P Discontinued.  Zio Pseudomonas chlororaphis strain F BM02 Biological fungicide for turf and ornamentals.  AFS009  ziram Ziram, Ziram Granuflo B, F, P M3 Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbamates; nonphytotoxic except for zinc-esnitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo ziram B, F, P M3 Label for many diseases on many crops.  Zonix Biofungicide Rhamnolipid Biosurfactant E, F NC A surfactant derived from Pseudomonas aeruginosa that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	Warhammer	chitosan	A, B	NC	no preharvest interval or reentry interval requirements. Has been touted as a nematicide and bactericide. Activity
WRC-AP-1 Gliocladium virens E, P NC Discontinued name, see SoilGard.  Xeroton-3 hydrogen peroxide + peroxyacetic acid + octanoic acid  Xzemplar fluxapyroxad B, C, E, P 7 Turfgrass label. Does not kill algae.  Zampro ametoctradin + dimethomorph F, P 45 + 40 Fungicide mixture for diseases caused by oomycetes in vegetables, hop, and grapes.  ZeroTol peroxide B, D Disinfectant with very short residual activity. Registered like fungicides but do not use it that way.  Zen-O-Spore Ulocladium oudemansii strain U3 E, N, P NC Biofungicide for use on fruits and nuts against Botrytis diseases. O  zineb Zineb B, E, P Discontinued.  Zio Pseudomonas chlororaphis strain F BM02 Biological fungicide for turf and ornamentals.  AFS009  ziram Ziram, Ziram Granuflo B, E, P M3 Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbamates; nonphytotoxic except for zinc-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo ziram B, E, F M3 Label for many diseases on many crops.  Zonix Biofungicide Rhamnolipid Biosurfactant E, F NC A surfactant derived from Pseudomonas aeruginosa that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	Willowood Azoxy	azoxystrobin	B-N, C, F, Ls, P	11	Discontinued name.
Agroton-3	Wingman	mancozeb	B, F, P	M3	Discontinued name.
Hoctanoic acid	WRC-AP-1	Gliocladium virens	F, P	NC	Discontinued name, see SoilGard.
Zampro       ametoctradin + dimethomorph       F, P       45 + 40       Fungicide mixture for diseases caused by oomycetes in vegetables, hop, and grapes.         ZeroTol       peroxide       B, D       Disinfectant with very short residual activity. Registered like fungicides but do not use it that way.         Zen-O-Spore       Ulocladium oudemansii strain U3       F, N, P       NC       Biofungicide for use on fruits and nuts against Botrytis diseases. O         zineb       Zineb       B, F, P       Discontinued.         Zio       Pseudomonas chlororaphis strain AFS009       F       BM02       Biological fungicide for turf and ornamentals.         ziram       Ziram, Ziram Granuflo       B, F, P       M3       Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbamates; nonphytotoxic except for zinc-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.         Ziram Granuflo       ziram       B, F, P       M3       Label for many diseases on many crops.         Zonix Biofungicide       Rhamnolipid Biosurfactant       E, F       NC       A surfactant derived from Pseudomonas aeruginosa that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	Xeroton-3	, , ,	D		Lots of uses but expect low residual.
Vegetables, hop, and grapes.  ZeroTol peroxide B, D Disinfectant with very short residual activity. Registered like fungicides but do not use it that way.  Zen-O-Spore Ulocladium oudemansii strain U3 F, N, P NC Biofungicide for use on fruits and nuts against Botrytis diseases. O  zineb Zineb B, F, P Discontinued.  Zio Pseudomonas chlororaphis strain AFS009  ziram Ziram, Ziram Granuflo B, F, P M3 Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbamates; nonphytotoxic except for zinc-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo ziram B, F, P M3 Label for many diseases on many crops.  Zonix Biofungicide Rhamnolipid Biosurfactant E, F NC A surfactant derived from Pseudomonas aeruginosa that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	Xzemplar	fluxapyroxad	B, C, F, P	7	Turfgrass label. <b>Does not kill algae</b> .
Like fungicides but do not use it that way.	Zampro	ametoctradin + dimethomorph	F, P	45 + 40	, ,
diseases. O  Zineb Zineb Zineb B, F, P  Discontinued.  Zio Pseudomonas chlororaphis strain AFS009  Ziram, Ziram Granuflo B, F, P  M3 Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbamates; nonphytotoxic except for zinc-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo ziram B, F, P  M3 Label for many diseases on many crops.  Zonix Biofungicide Rhamnolipid Biosurfactant E, F  NC A surfactant derived from Pseudomonas aeruginosa that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	ZeroTol	peroxide	B, D		, , ,
Ziram Granuflo  Ziram Granuflo  B, F, P  M3  Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbamates; nonphytotoxic except for zinc-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo  Ziram B, F, P  M3  Label for many diseases on many crops.  Zonix Biofungicide  Rhamnolipid Biosurfactant  E, F  NC  A surfactant derived from Pseudomonas aeruginosa that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	Zen-O-Spore	Ulocladium oudemansii strain U3	F, N, P	NC	,
AFS009  ziram Ziram, Ziram Granuflo B, F, P M3 Used extensively to control shothole, brown rot, and peach leaf curl. The most stable of the metallic dithiocarbamates; nonphytotoxic except for zinc-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo ziram B, F, P M3 Label for many diseases on many crops.  Zonix Biofungicide Rhamnolipid Biosurfactant E, F NC A surfactant derived from <i>Pseudomonas aeruginosa</i> that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	zineb	Zineb	B, F, P		Discontinued.
peach leaf curl. The most stable of the metallic dithiocarbamates; nonphytotoxic except for zinc-sensitive plants. Does not build up in soil and is rapidly decomposed by weathering.  Ziram Granuflo ziram B, F, P M3 Label for many diseases on many crops.  Zonix Biofungicide Rhamnolipid Biosurfactant E, F NC A surfactant derived from <i>Pseudomonas aeruginosa</i> that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	Zio	•	F	BM02	Biological fungicide for turf and ornamentals.
Zonix Biofungicide Rhamnolipid Biosurfactant E, F NC A surfactant derived from <i>Pseudomonas aeruginosa</i> that actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	ziram	Ziram, Ziram Granuflo	B, F, P	M3	peach leaf curl. The most stable of the metallic dithiocar- bamates; nonphytotoxic except for zinc-sensitive plants. Does not build up in soil and is rapidly decomposed by
actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on the label.	Ziram Granuflo	ziram	B, F, P	M3	Label for many diseases on many crops.
Zyban thiophanate-methyl + mancozeb B, F, P, S 1 + M3 <b>Discontinued.</b>	Zonix Biofungicide	Rhamnolipid Biosurfactant	E, F	NC	actively lyses zoospores. Good use in hydroponic systems and may have several other uses. Several general crops on
	Zyban	thiophanate-methyl + mancozeb	B, F, P, S	1 + M3	Discontinued.