

Potato Late Blight Fungicides Registered for WI, 2019.

In-furrow and seed treatment registrations are omitted. Not a comprehensive list. Most fungicides listed are for use in conventional systems. Where generic fungicide trade names are listed, there may be numerous. Compiled 8 July 2019.

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Trade Name (rate/A)	Active Ingredient(s)	PHI	REI	FRAC #	Activity of Fungicide	Comments
<u>Agri Tin, Super Tin 4L, Super Tin 80WP</u> (4-6 fl oz)	triphenyltin hydroxide	7 days	48 hours	30	Protectant; kills spores on contact	Restricted use pesticide. 3 fl oz rate can be used if material is tank-mixed with another fungicide.
<u>Alude</u> (1.25 qt in 90 gal water) <u>Confine Extra</u> (3-5 qt in 20 gal water/acre) <u>K-Phite 7LP</u> (1-3 qt in 10 gal water/acre)	mono and dipotassium salts of phosphorous acid	0 days	4 hours	33	Upregulates resistance/disease protection in plant	Foliar application. Use higher rate when disease pressure is severe. Do not apply at less than 3 day intervals. Do not apply to plants that are dormant or that are heat or moisture stressed.
<u>Ariston</u> (2 pt)	chlorothalonil + cymoxanil	14 day	12 hours	M5+2 7	Protectant and locally systemic	Additional chlorothalonil may be tank-mixed with this formulation to enhance % active ingredient applied (be sure to include the Ariston component in overall season total). Cymoxanil is Curzate.
<u>Elixir</u> (1.2-2.0 lb)	mancozeb+ chlorothalonil	7 days	24 hours	M3+ M5	Protectant	Use higher rate as vines increase in size.
<u>Fosphite, Rampart</u> (1-4 qt)	potassium phosphite	0 days	4 hours	33	Upregulates resistance/disease protection in plant	Foliar post-emergence spray and post harvest spray for control in storage. Apply in at least 20 gal water/acre.
<u>Fungi-Phite</u> (Foliar: 2 qt/A Seed trt: 15% vol to vol-2 ton in 1 gal solution) <u>Helena Prophyt</u> (4 pt/acre) <u>Badge SC</u> (1-3 pt)	potassium phosphite	0 days	4 hours	33	Upregulates resistance/disease protection in plant	Seed piece spray and foliar post-emergence spray. Tank-mix with another effective fungicide is recommended and use high label rate for late blight control.
<u>Bravo Ultrex</u> (.7 then .9 to 1.36 lb) <u>Bravo WeatherStik, Echo 720, Equus 720 SST, Initiate 720, Chlorothalonil 720 SC, Chloronil 720, Praiz</u> (.75 then 1-1.5 pt) <u>Bravo Zn, Equus 500 Zn, Initiate Zn</u> (1 1/8 then 1.5 to 2.25 pt)	copper hydroxide, copper oxychloride	0 days	24 hours	M1	Protectant	Protectant activity only. Apply at 7 to 10 day interval.
<u>Bravo Ultrex</u> (.7 then .9 to 1.36 lb) <u>Bravo WeatherStik, Echo 720, Equus 720 SST, Initiate 720, Chlorothalonil 720 SC, Chloronil 720, Praiz</u> (.75 then 1-1.5 pt) <u>Bravo Zn, Equus 500 Zn, Initiate Zn</u> (1 1/8 then 1.5 to 2.25 pt)	chlorothalonil	7 days	12 hours	M5	Protectant	11.25 lb a.i./acre maximum on standard label. However, WI has a special 24(c) registration for long season potatoes extending the max a.i. from 11.25 to 16 lb a.i./acre with Bravo (Syngenta) and Echo (Sipcam Advan) formulations.

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<u>Echo Zn</u> (1 to 2.125 pt) <u>Equus DF</u> (.7 then .9 to 1.36 lb) Echo 90DF (5/8 then 7/8 to 1.25 lb)	chlorothalonil	7 days	12 hours	M5	Protectant	11.25 lb a.i./acre maximum on standard label. However, WI has a special 24(c) registration for long season potatoes extending the max a.i. from 11.25 to 16 lb a.i./acre with Bravo (Syngenta) and Echo (Sipcam Advan) formulations.
<u>Cabrio Plus</u> (2.9 lb)	pyraclostrobin + metiram	3 days	24 hours	11+M 3	Locally systemic and protectant	17.4 lb/acre maximum per season. Do not apply more than 2 sequential applications.
<u>Champ WG</u> (1 to 1.5 lb 3 to 4 lb in severe areas) <u>Champ Formula 2 Flowable</u> (2/3 to 2 2/3 pt) <u>Champ DP Dry Prill</u> (2/3 to 1 lb 2 to 2 2/3 lb when disease is severe) <u>Kentan DF</u> (1-2.5 lb 4 lb when severe) <u>Kocide 2000, Kocide 3000</u> (.73- 3 lb .5-1.75 lb) <u>Nu-Cop 3L</u> (2/3 to 2 pt 2 to 4 pt if severe) <u>Nu-Cop 50DF</u> (1-1.5 lb 3-4 lb if severe) <u>Previsto</u> (1-3 qt)	copper hydroxide	0 days	24 hours	M1	Protectant	Use high label rates for foliar late blight protection.
<u>C-O-C-S WDG</u> (1.5- 4 lb) <u>Cuprofix-Ultra 40 Dispers</u> (0.75-3.0 lb)	copper oxychloride, basic copper sulfate	0 days	24 hours	M1	Protectant	Use high label rates for foliar late blight protection.
<u>Mastercop</u> (0.5-1.5 pt)	copper sulfate pentahydrate	0 days	24 hours	M1	Protectant	Use high label rates for foliar late blight protection.

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<u>Cueva</u> (2 gal in 50-100 gal water/acre)	copper octanoate	0 days	24 hours	M1	Protectant	Use high label rates for foliar late blight protection.
<u>Curzate 60DF</u> (3.2 oz foliar)	cymoxanil	14 days	12 hours	27	Locally systemic	Locally-systemic fungicide. Must be tank-mixed with a protectant fungicide. Rainfast within 2 hours.
<u>Dithane F45 Rainshield</u> (.4 to 1.6 qt) <u>Dithane M45</u> (.5 to 2 lb) <u>Koverall,</u> <u>Roper DF</u> <u>Rainshield,</u> <u>Fortuna</u> <u>75WDG</u> (1-2.0 lb)	mancozeb	24 hours	3 days	M3	Protectant	Max rate per acre/season is 11.2 lb a.i. Begin use at lower rate and increase as vines increase in size.
<u>Evito 480SC,</u> <u>Aftershock</u> (3.8 fl oz)	fluoxastrobin	7 days	12 hours	11	Locally systemic	Follow label for resistance management.
<u>Forum</u> (Foliar and tuber control: 6 oz)	dimethomorph	4 days	12 hours	40	Systemic	May be tank-mixed with another effective fungicide for enhanced management – but not required by label. Addition of an adjuvant may enhance management. Can be applied after vine kill.
<u>Gavel 75DF</u> (1.5 to 2 lb)	zoxamide+ mancozeb	3 days	48 hours	22+M3	Protectant	Do not make >6 applications/crop. Contact fungicide.
<u>Gem 500SC</u> (3.8 fl oz)	trifloxystrobin	7 days	12 hours	11	Locally systemic	Follow label for resistance management.
<u>Headline</u> (6 to 12 fl oz)	pyraclostrobin	3 days	12 hours	11	Locally systemic	Follow label for resistance management.
<u>ManKocide</u> (1.5 to 2 then 4-5 lb)	mancozeb+ copper hydroxide	3 days	24 hours	M3+ M1	Protectant	Not labeled as a seed trt for potatoes.
<u>Omega 500F</u> (5.5 fl oz)	fluazinam	14 days	48 hours	29	Protectant	REI is 4 days for high exposure activities. New special local need label 24c in April 2011.
<u>Omega Top MP</u> (5.5 fl oz) – individual label for Omega sold in co-pack with Top MP (difenoconazole)	fluazinam	14 days	48 hours	29	Protectant and locally systemic	Can be applied aerially. REI is 4 days for high exposure activities.

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<u>Orondis Ultra</u> (5.5-8.0 fl oz)	oxathiapiprolin + mandipropamid	14 days	4 hours	U15 + 40	Translaminar or systemic within leaf and xylem mobile; rainfast within 30 minutes	Max single application rate is 8.0 fl oz/A. Max annual rate is 32.0 fl oz/A/year. Do not apply >0.125 lb ai/year of oxathiapiprolin. Do not apply >0.522 lb ai/year of mandipropamid. Make no more than 2 sequential applications before rotating to a different mode of action. Do not follow soil applications of oxathiapiprolin with foliar applications of Orondis Ultra.
<u>Orondis Opti</u> (1.75-2.50 pt)	oxathiapiprolin + chlorothalonil	7 days	12 hours	U15 + M5	Translaminar or systemic within leaf and xylem mobile; rainfast within 30 minutes	Max single application rate is 2.5 pt/A. Max application annual rate is 10 pt/A/year. Do not apply >0.125 lb ai/A/year of oxathiapiprolin. Do not apply >11.25 lb ai/A/year of chlorothalonil.
<u>Oxidate</u> (40 to 120 fl oz to 100 gal water, 30-100 gal/acre)	hydrogen dioxide	0 days	1 hour	NC	Kills spores on contact and no residual protectant activity after treatment	Foliar spray for late blight. Frequent applications (5-day intervals) can limit sporulation.
<u>Penncozeb 80WP</u> , <u>Penncozeb 75DF</u> (.5 to 2 lb) <u>Penncozeb 4FL</u> , <u>Manzate flowable</u> (.4 to 1.6 qt) <u>Manzate Pro-Stick</u> (1 to 2 lb, seed trt: 1.25 lb/50 gal water)	mancozeb	3 days	24 hours	M3	Protectant	Do not exceed 11.2 lb a.i./acre/year.
<u>Phostrol</u> (2.5 to 10 pt) (Post harvest trt: 1 gal/ton in .5 gal water)	mono- and di-basic sodium, potassium, and ammonium phosphites	0 days	4 hours	33	Upregulates resistance or plant defense	Can be applied as a foliar for late blight, pink rot, and Pythium leak. Can be applied post-harvest for storage disease control.
<u>Polyram 80DF</u> (1.5 to 2 lb in 15 gal water/acre minimum)	metiram	3 days	24 hours	M3	Protectant	Metiram is an EBDC, like mancozeb (M3). Total amount of a.i. per year/acre must include all EBDCs.
<u>Previcur Flex</u> (.7 to 1.2 pt)	propamocarb hydrochloride	14 days	12 hours	F	Systemic antisporeulant	Apply in a tank-mix with effective protectant. Can be applied as a broadcast or banded application over the row, post-emergence.
<u>Priaxor</u> (4-8 fl oz)	fluxapyroxad+ pyraclostrobin	7 days	12 hours	7+11	Protectant and locally systemic	Cannot apply more than 3 applications/season. Follow label for resistance management. Xemium and Headline pre-mix.

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<u>Quadris</u> , <u>Satori</u> , <u>Willowood</u> <u>Azoxy 2SC</u> , <u>Aframe</u> , <u>Equation SC</u> (6 to 15.5 fl oz) <u>Trevo</u> , <u>Azoxystrar</u> , <u>Azoxyzone</u> (6-20 fl oz)	azoxystrobin	14 days	4 hours	11	Locally systemic	Alternate away from Group 11 fungicides to manage resistance.
<u>Quadris Opti</u> (1.6 pt)	azoxystrobin + chlorothalonil	14 days	12 hours	11+ M5	Locally systemic and protectant	Alternate away from Group 11 fungicides to manage resistance.
<u>Ranman</u> (1.4 to 2.75 fl oz)	cyazofamid	7 days	12 hours	21	Protectant	Follow label for resistance management.
<u>Reason</u> (5.5 to 8.2 fl oz)	fenamidone	14 days	12 hours	11	Locally systemic	Follow label for resistance management.
<u>Revus Top</u> (5.5 to 7 fl oz)	mandipropamid+difenconazole	14 days	12 hours	40+3	Locally systemic and contact	Addition of an adjuvant is recommended.
<u>Tanos</u> (8 to 10 oz)	cymoxanil + famoxadone	14 days	12 hours	27+11	Locally systemic and contact	Must be tank-mixed with an effective protectant fungicide. Good protectant for limiting leaf blight. Excellent curative.
<u>Ridomil Gold SL</u> (1 to 2 pt)	mefenoxam	14 days	48 hours	4	Systemic	Do not apply beyond the at-planting stage.
<u>Ridomil Gold Bravo SC</u> (2.5 pt)	mefenoxam+chlorothalonil	14 days	48 hours	4+M5	Systemic and protectant	Follow label for resistance management.
<u>Ridomil Gold Copper</u> (2 lb)	mefenoxam+copper hydroxide	14 days	48 hours	4+M1	Systemic and protectant	Tank-mix with an effective protectant.
<u>Ridomil Gold MZ WG</u> (2.5 lb)	mefenoxam+mancozeb	3 days	48 hours	4+M3	Systemic and protectant	Follow label for resistance management.
<u>Zampro</u> (11-14 fl oz)	ametoctradin + dimethomorph	4 days	12 hours	45+40	Systemic and protectant	Do not make more than 2 sequential applications. Follow label for resistance management. Ametoctradin is new a.i.; dimethomorph is Forum (formerly Acrobat).
<u>Zing!</u> (32-34 fl oz)	zoxamide+chlorothalonil	7 days	12 hours	22+M5	Protectant	Do not make more than 2 sequential applications before alternating with another fungicide of a different mode of action. Do not make >8 applications or apply >1.52 lb of zoxamide and 8.88 lb of chlorothalonil per season per acre.