

Listing of Potato Fungicides/Nematicides/Combinations with Insecticide for Selected Diseases & Nematodes with Efficacy Ratings
 T. A. Zitter, Dept of Plant Path & Plant Microbe Biology, Cornell University, Ithaca, NY. NOV 2013

(Group ¹) Common Name ^{(DTI) REI}	Trade Name ²	Uses; Action	Blk. Dot	Blk. Scurf	Com. Scab	Early Blight	Fus. Dry Rot	Gray Mold	LB, Fol. Tuber	Leak	Nema- todes	Pink Rot	Rhiz. Canker	Silver Scurf	Verti- cillium	White Mold	Mfr/Dist. Comments
¹¹ <i>azoxystrobin</i> ^{0 or 14} <i>In-Furrow</i> REI 4h	Quadris F	In-furrow ⁰ ; Foliar, trans-laminar	G, IF; VG, Fol.	G, IF	--	Res, mix with contact G	--	--	F, Fol., preven- tively	--	--	--	G	G, IF	--	--	Syngenta; Res for EB is common for all strobilurin Gp. 11 fungicides; use with contact
^{11+M5} <i>azoxystrobin</i> + <i>chlorothalonil</i> ¹⁴ REI 12h	Quadris Opti	Foliar; trans-laminar				G as mix			F, Fol., preven- tively								Syngenta;
¹¹⁺³ <i>azoxystrobin</i> + <i>difenoconazole</i> ¹⁴ REI 12h	Quadris Top	Foliar; trans-lam. & contact				G as mix			F, Fol., preven- tively								Syngenta;
¹¹ <i>azoxystrobin</i> + ⁴ <i>mefenoxam</i> ⁰ REI 0h (soil incorporated)	Quadris Ridomil Gold	In-furrow							US22, US23, US24	Some res.							Syngenta;
									?								
¹¹⁺¹²⁺³ <i>azoxystrobin</i> + <i>fludioxonil</i> + <i>difenoconazole</i> ⁰ REI PPE	Stadium	PH, spray				E							E				1 post-harvest spray to tubers; Do not use on seed potatoes or SP.
^{Bio} <i>Bacillus subtilis</i> ⁰ REI 4h	Serenade Soil DMRI	In-furrow															AgraQuest;
⁷ <i>boscalid</i> ¹⁰ REI 12h	Endura	Foliar,	--	--	--	E	--	G	--	--	--	--	--	--	--	G	BASF;
^{M5} <i>chlorothalonil</i> ⁷ REI 12h	Bravo W Stik or OLP	Foliar, contact	--	--	G, avoid repeat	--	G	G, Fol. P, Tuber	--	--	--	--	--	--	--		Syngenta; generics listed below; repeated use=Tol.
^{M5+33} <i>chlorothalonil</i> + <i>K phosphite</i> ⁷ REI 12h	Catamaran	Foliar, contact	F, Fol.	--	--	G	--	G	G, Fol. ?	Supp if full season	--	Supp if full season	--	--	--	Luxem.-Pamol;	

^{Bio} <i>Coniothyrium minitans</i> ⁰ REI 4h	Contans WG OMRI	Soil treat	--	--	--	--	--	--	--	--	--	--	--	--	--	G	Prophyta; use prior to planting
^{M₁} <i>copper hydroxide</i> ⁰ REI 24h	Kocide	Foliar, contact	--	--	--	F, Prev.	--	--	P-F Prev	--	--	--	--	--	--	--	DuPont; other coppers listed below
									NO or?								
(Group ¹) Common Name ^(DT) REI	Trade Name ²	Uses; Action	Blk. Dot	Blk. Scurf	Com. Scab	Early Blight	Fus. Dry Rot	Gray Mold	LB, Fol. Tuber	Leak	Nemato- todes	Pink Rot	Rhiz. Canker	Silver Scurf	Verticillium	White Mold	Mfr/ Disti. Comments
²¹ <i>cyazofamid</i> ^{0 or 7} REI 12h	Ranman 400SC	In-furrow ⁰ ; Foliar, contact	--	--	--	G, if tank-mixed	--	--	G-E	--	--	F	--	--	--	--	ISK (FMC); a contact fungicide
									G								
²⁷ <i>cymoxanil</i> ¹⁴ REI 12h	Curzate 60DF	Seed piece; Foliar, Trans-laminar	--	--	--	G, if tank-mixed	--	--	G, SP	--	--	--	--	--	--	--	DuPont; Specific for LB; must be tank-mixed with protectant
									G, Foliar								
^{27+11+contact} <i>cymoxanil + famoxadone</i> ¹⁴ REI 12h	Tanos 50DF	Foliar, Trans-laminar	--	--	--	Res, G if tank-mixed	--	--	E, tank-mixed	--	--	--	--	--	--	--	DuPont; must be tank-mixed with protectant
									No								
⁴⁰ <i>dimethomorph</i> ⁴ REI 12h	Forum	Foliar, Trans-laminar	--	--	--	G if tank-mixed	--	--	G, tank-mixed	-	--	--	--	--	--	--	BASF;
<i>ethoprop</i> (INS/NEM)	Mocap		--	-	P	-	-	-	-	F-G	-	-	-	-	-	-	Amvac pending
¹¹ <i>fenamidone</i> ¹⁴ REI 12h	Reason 500SC	Foliar, locally systemic	-	--	--	Res, see above,	G	--	G	--	--	G	--	--	--	--	Bayer;
									--								
<i>fenamiphos</i> (NEM)	Nemacur																Reregistration pending by Amvac
²⁹ <i>fluazinam</i> ¹⁴ REI 48h	Omega 500F	Foliar, contact activity	--	--	OK	--	--	--	G, Fol., contact	--	--	--	--	--	--	--	ISK; Not registered in NYS; also as Shirlan, Nando
									G								

¹² <i>fludioxonil</i> ⁰ REI 12h	Maxim Dry	Seed piece, dry	--	G	--	--	G-E, res	--	--	--	--	--	--	G	--	--	Syngenta; Not for use on seed for seed production.
	Maxim 4FS, Liq., spec equi	Seed piece slurry	--	G	--	--	G-E, res	--	--	--	--	--	--	G	--	--	Also for seed prod., follow with MZ on SP or use Quadris IF
(Group ¹) Common Name ^(DTH) REI	Trade Name²	Uses; Action	Blk. Dot	Blk. Scurf	Com. Scab	Early Blight	Fus. Dry Rot	Gray Mold	LB, Fol. Tuber	Leak	Nematodes	Pink Rot	Rhiz. Canker	Silver Scurf	Verticillium	White Mold	Mfr/Disti. Comments
^{12+M3} <i>fludioxonil + mancozeb</i> ⁰ REI 24h	Maxim MZ	Seed piece dry	--	G	--	--	G-E	--	--	--	--	--	G	G	--	--	Syngenta;
^{12+Ins} <i>fludioxonil + thiamethoxam</i> ⁰ REI 12h	Cruiser Maxx Potato	Seed piece liquid	--	G	--	--	G-E	--	--	--	--	--	G	G	--	--	Syngenta; liq. seed treater
⁴² <i>fluopicolide</i> ⁷ REI 12h	Presidio	Foliar, specific Oomycete	--	--	--	--	--	--	G	--	--	G	--	--	--	--	Valent; Not yet registered for potato
¹¹ <i>fluoxastrobin</i> ⁷ REI 12h	Evito 480SC	Foliar	--	--	--	Res, see above, G	--	--	F	--	--	--	--	--	--	--	Arysta; Not Registered in NYS
⁷ <i>flutolanil</i>	Moncut 70DF	In-furrow	--	G	--	--	--	--	--	--	--	--	G	--	--	--	
^{7+M3} <i>flutolanil + mancozeb</i>	Moncoat MZ		-	G	-	-	-	-	-	-	-	-	G	-	-		
² <i>iprodione</i>	Rovral 4F		-	-	-	F	-	-	-	-	-	-	-	-	-	F-G	
<i>mancozeb</i> (M3)	Potato Seed Treater	Seed piece															Wilbur-Ellis ; Nubark mancozeb
<i>mancozeb</i> (M3)	Dithane DF, OLP	SP; Foliar	-	-	P	F-G	F	-	F-G	-	-	-	P-F	-	-	Dow; others listed below	

<i>mancozeb</i> (M3) + <i>imidacloprid</i>	Gaucho MZ	Seed piece															Bayer
<i>mandipropamid</i> (40)	Revus	Foliar; trans-laminar															Syngenta;
(Group 1) Common Name (DTH) REI	Trade Name²	Uses; Action	Blk. Dot	Blk. Scurf	Com.S cab	Early Blight	Fusarium Dry Rot	Gray Mold	Late Blight	Leak	Nema-todes	Pink Rot	Rhiz. Canker	Silver Scurf	Verti-cillium	White Mold	Mfr/ Disti. Comments
<i>mandipropamid</i> + <i>difenoconazole</i> (40 + 3)	Revus Top	Foliar; contact and trans-laminar	F-G		G				G							-	Syngenta
<i>mefenoxam</i> (4)	Ridomil Gold SL, or OLP		-	-	-	-	-	-	Res, P	Res, F	-	Res, F	-	-	-	-	Syngenta;
<i>mefenoxam</i> (4) + <i>copper hydroxide</i> (M1) or + <i>chlorothalonil</i> (M5) or <i>MZ</i> (M3)	Ridomil Gold Copper, Bravo, MZ																Syngenta
<i>metam sodium</i> (fumigant 42)	Vapam HL		P	-	-	-	?	-	-	-	G	-	-	-	G	-	
<i>metiram</i> (M3)	Polyram		-	-	-	F-G	-	-	F-G	-	-	-	-	-	-	-	
<i>oxamyl</i> (INS/NEM)	Vydate C-LV		-	-	-	-	-	-	-	-	F-G	-	-	-	-	-	
<i>PCNB</i> (14)	Blocker 4F	In-furrow	F	-	OK	-	-	-	-	-	-	-	-	-	-	-	Amvac; pentachloronitrobenzene
<i>propamocarb</i> (28)	Previcur Flex	Foliar;	-	-	-	-	-	-	G-E	-	-	-	-	-	-	-	
<i>phosphorous acids & salts</i> (33)	Phostrol or OLP								F			F-G					

<i>Pseudomonas syringae</i> (Bio)	Bio-Save 10LP	Post harvest																	
<i>pyraclostrobin</i> (11)	Headline EC	In-furrow; Foliar	VG, Fol	-	-	Res, see above,	-	F	G, prev	-	-	-	-	-	-	-	-	-	BASF;
<i>pyrimethanil</i> (9)	Scala SC		-	-	-	F-G	-	-	-	-	-	-	-	-	-	-	-	-	Bayer;
(Group ¹) Common Name ^(DTH) REI	Trade Name ²	Uses; Action	Blk. Dot	Blk. Scurf	Com. S cab	Early Blight	Fusarium Dry Rot	Gray Mold	Late Blight	Leak	Nematodes	Pink Rot	Rhiz. Canker	Silver Scurf	Verticillium	White Mold	Mfr/ Disti. Comments		
<i>sodium hypochlorite</i> (M)	AgClor 310																		
<i>thiabendazole</i> (1)	Mertect	Post harvest	-	-	-	-	Res, P	-	-	-	-	-	-	Res	-	-	-	-	
<i>thiophanate methyl</i> (1)	Topsin M		--	--	--	--	G	--	--	--	--	--	G	--	--	G	--	--	
<i>thiophanate methyl</i> (1) + MZ (M3)	Tops MZ 70WP	Seed piece	-	G	-	-	G	-	-	-	-	-	G	P-F	-	-	-	-	
<i>thiophanate methyl</i> (1) + MZ (M3) + cymoxanil (27)	Evolve Potato Seed Piece	Seed piece																	
<i>thiophanate methyl</i> (1) + MZ (M3) + imidacloprid	TOPS MZ-Gaucho	Seed piece																	
<i>Trichoderma harzianum</i> (Bio)	T-22 HC OMRI	Seed piece; In-furrow																	
<i>trifloxystrobin</i> (11)	Gem 500SC	Foliar, trans-laminar; tank-	-	-	-	Res, see above, G	--	F	F; must be tank-mixed	--	--	--	--	--	--	--	--	--	Bayer; tank-mix with contact
<i>triphenyltin hydroxide</i> (30)	Super Tin		-	-	-	G	-	-	F	-	-	-	-	-	-	-	-	-	

zoxamide (22) + MZ (M3)	Gavel 75DF		-	-	-	G	-	-	G-E	-	-	-	-	-	-	-	-	-	-
zoxamide (22)	Zoxium 80WSP								G-E										

¹**Group Number**^{DTH} refers to the Fungicide Resistance Action Committee (**FRAC**) code, accepted by EPA to indicated mode of action for fungicide classification; **DTH**=Days to Harvest, especially for products applied to foliage; **REI** = reentry interval.

²**Product trade names** (*If underlined, then registered in NYS*) have been used for clarity, but reference to trade names does not imply endorsement by the author and Cornell University, and discrimination is not intended against any product not mentioned.

Abbreviations for Diseases: **BD** = Black Dot (*Colletotrichum coccodes*); **BS** = Black Scurf and Rhizoctonia canker (*Rhizoctonia solani*); **CS** = Common Scab; **EB** = Early Blight, (*Alternaria solani*); **F** = Fusarium Dry & Tuber Rots;;

GM = Gray Mold or Botrytis vine rot (*Botrytis*); **LB** = Late Blight; **L** = Leak; **N** = Nematodes; **PR** = Pink Rot; **R** = Rhizoctonia Canker; **SS** = Silver Scurf; **VT** = Verticillium; **WM** = White Mold

Abbreviations used in Table: **OLP** = other labeled trade name products that are registered in NY; **OMRI** = Organic Material Res. Inst.; **IF** = In-furrow; **SP** = Seed piece.

Performance Code: **Res** = fungicide resistance has occurred in NYS or has been reported in other states; **P** = Poor; **F** = Fair, **OK** = probably is useful; **G** = Good, **VG** = Very good; **E** = Excellent; **PREV** = use preventatively.

OLP = Generics exist: **chlorothalonil** (*Echo Equus, Chlorothalonil 720, Initiate*); **fixed coppers** (*Badge SC, Basic Copper Sulfate, BCS 53, Champ, Champion, Kentan, Cuprofix, Nu-Cop, phosphorous acids (Agri-Fos, Fungi-Phite, ProPhyt, Kphite, Rampart)*); **Sulfurs** (*Kumulus DF, Micro Sulf, Microthiol Disperss, Sulfur DF*)