



POTATO CROP CARE GUIDE

Syngenta is committed to helping potato growers produce the highest quality crop possible. Our goal is to aid potato growers in producing higher marketable yields, year after year, with proven solutions. This brochure is designed to provide a snapshot of the Syngenta portfolio.

SEED TREATMENT					
PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 Cruiser® 5FS seed treatment insecticide offers convenient, long-lasting seed-delivered insect protection through an optimized formulation with enhanced drying characteristics. It should be used as an integral part of a potato pest management strategy. A fungicide seed treatment is necessary with this product.	12 hours	N/A	See label	0.125 lbs a.i./A	Green peach aphids, potato aphids, Colorado potato beetle, flea beetles, potato leafhoppers, psyllids, whiteflies, wireworms (seed piece protection)
 CruiserMaxx® Potato liquid seed treatment insecticide/fungicide product for potatoes that puts the power of an insecticide and fungicide into one convenient product with an optimized formulation with enhanced drying characteristics.	12 hours	N/A	See label	0.125 lbs thiamethoxam per acre per year	Aphids, Colorado potato beetle, flea beetles, leafminers, Potato leafhopper, psyllids, whiteflies, Black scurf and stem and stolon canker (<i>Rhizoctonia solani</i>), <i>Fusarium</i> dry rot, silver scurf (<i>Helminthosporium solani</i>)
 CruiserMaxx® Potato Extreme seed treatment insecticide/fungicide from Syngenta combines the convenience and uniformity of a liquid seed treatment with the power of an insecticide and two fungicides with different modes of action and an optimized formulation with enhanced drying characteristics to aid in suberization.	12 hours	N/A	0.31 fl oz/100 lbs of potato seed tubers	0.125 lbs thiamethoxam per acre per year	Aphids, Colorado potato beetle, flea beetles, leafminers, Potato leafhopper, psyllids, whiteflies, Black scurf and stem and stolon canker (<i>Rhizoctonia solani</i>), <i>Fusarium</i> dry rot, silver scurf (<i>Helminthosporium solani</i>)

¹ See supplemental label for specific use.

² Refer to label for specific instructions for use in conjunction with a non-ionic surfactant or crop oil concentrate.

SEED TREATMENT					
PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 CruiserMaxx® Vibrance® Potato seed treatment Insecticide/fungicide combines the power of three industry-leading fungicides for <i>Rhizoctonia</i>, <i>Helminthosporium</i> and <i>Fusarium</i> protection with an optimized formulation for enhanced drying characteristics. This combination will help potato growers enhance germination, increase vigor and improve stand establishment, while improving size and tuber distribution to maximize quality yields.	12 hours	N/A	0.5 fl oz/100 lbs of potato seeds	0.125 lbs thiamethoxam per acre per year	Aphids, Colorado potato beetle, flea beetles, leafminers, Potato leafhopper, psyllids, Black scurf and stem and stolon canker (<i>Rhizoctonia solani</i>), <i>Fusarium</i> dry rot, silver scurf (<i>Helminthosporium solani</i>)
 Maxim® MZ fungicide protects against the seedborne and soilborne disease pathogens that cause poor emergence, uneven crop growth and reduced crop stand, helping to protect yield potential and improve the marketable quality of potatoes.	24 hours	N/A	0.5 lbs/100 lbs of potato seed tubers	N/A	<i>Fusarium</i> dry seed rot and decay, stem canker, tuber black scurf, silver scurf
 With Maxim® 4FS seed treatment fungicide, potato growers have the option of applying a liquid seed treatment for control of <i>Rhizoctonia solani</i>, <i>Fusarium</i> seed piece decay and silver scurf.	12 hours	N/A	0.08 fl oz/100 lbs of potato seed tubers	N/A	<i>Fusarium</i> dry seed rot and decay, stem canker, tuber black scurf, silver scurf
 Maxim® PSP seed treatment fungicide is a dry seed protectant designed to suppress certain fungal diseases of seed potatoes.	12 hours	N/A	0.5 lbs of product per 100 lbs of seed pieces	N/A	<i>Fusarium</i> dry rot seed decay, seed-borne <i>Rhizoctonia solani</i> , seed-borne <i>Helminthosporium solani</i>
 Revus® fungicide effectively reduces the spread of late blight fungus during cutting, handling and treating of seed potatoes. Revus must be used in conjunction with other seed treatments, and with proper care to the potato seed tubers after application.	4 hours	N/A	0.20 – 0.40 fl oz product/100 lbs of potato seeds	Check label to stay at or below the maximum allowed mandipropamid for the growing season.	Seedborne late blight
 Vibrance® Ultra Potato fungicide gives growers the disease-fighting strength they need to start the season strong. Vibrance Ultra, a combination of three trusted, proven active ingredients, is an all-in-one liquid formulation that provides broad-spectrum protection against key seed- and soil-borne diseases	0 hours	N/A	0.50 fl oz/100 lb of potato seeds	Refer to product label	Seed-borne silver scurf, seed-borne black scurf, stem and colon canker, <i>Fusarium</i> dry rot Suppression of Pink Rot Preventative control of late blight

¹ See supplemental label for specific use.

² Refer to label for specific instructions for use in conjunction with a non-ionic surfactant or crop oil concentrate.

FUNGICIDES

PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 Elatus® is a broad-spectrum fungicide for in-furrow use in potatoes that provides excellent control of <i>Rhizoctonia</i>, resulting in improved emergence, more uniform crop stand, enhanced plant health and optimized distribution of tuber size.	12 hours	N/A	0.34 – 0.5 oz/1000 linear row feet	9.5 oz/A	<i>Rhizoctonia</i> canker, black dot, silver scurf
	ELATUS 2EE: 12 hours	ELATUS 2EE: 14 days	ELATUS 2EE: 0.5 oz/1000 linear row feet	ELATUS 2EE: 9.5 oz/A	ELATUS 2EE: Suppression of Verticillium wilt (<i>Verticillium</i> spp.)
 Miravis® Prime fungicide sets a new standard for power, spectrum and stamina in potatoes, including against difficult-to-control diseases such as early blight and white mold.	12 hours	14 days	9.2 – 11.4 fl oz/A See label for details	34.2 fl oz/year	Brown spot, early blight, powdery mildew, Septoria leaf spot, black dot (suppression), gray mold (suppression), white mold
 For reliable control of tough molds, rely on the protection provided by Omega® 500F fungicide. Omega, a protectant contact fungicide, uses a multi-site mode of action to attack pathogens, providing effective disease control for potatoes.	12 hours	14 days	5.5 – 8 fl oz/A	3.5 pts	Late blight, white mold
 Orondis® Opti fungicide is a foliar fungicide that combines two active ingredients, oxathiapiprolin and chlorothalonil, to aid growers in hitting an out-of-the-park home run against early and late blight on potatoes. It is a real game changer in oomycete disease control, protecting the crop when it is most actively growing to maximize marketable yields. Orondis Opti offers control you can rely on, making it one of this season's Most Valuable Products.	12 hours	7 days	1.75 – 2.5 pts/A	10 pt/A/year Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of an oxathiapiprolin-containing product	Late blight, early blight, black dot, <i>Botrytis</i> vine rot
 Orondis® Gold fungicide is an in-furrow fungicide that combines the active ingredients in Orondis and Ridomil Gold® SL fungicides, giving potato growers the strength to double down on pink rot and Pythium leak. The unique activity of oxathiapiprolin and the proven, trusted performance of mefenoxam offer soilborne oomycete disease control to protect potatoes after planting.	48 hours	14 days	27.8 fl oz/A	27.8 fl oz/A Do not follow soil applications of oxathiapiprolin-containing products with foliar applications of an oxathiapiprolin-containing product	Pink rot, Pythium leak, Pythium seedling disease Refer to label for use with soil applications.
 Orondis® Ultra fungicide combines two active ingredients, oxathiapiprolin and mandipropamid, to aid growers in hitting an out-of-the-park home run against late blight in potatoes. As the only active ingredient in FRAC Group 49, oxathiapiprolin is not cross-resistant to any other fungicide.	4 hours	14 days	5.5 – 8.0 fl oz/A	32.0 fl oz/A/year	Late blight

¹ See supplemental label for specific use.

² Refer to label for specific instructions for use in conjunction with a non-ionic surfactant or crop oil concentrate.

FUNGICIDES

PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 Quadris® Quadris® fungicide provides outstanding broad-spectrum systemic disease control against yield-robbing fungi. Applications can be made in-furrow as well as by foliar spray.	4 hours	14 days	6 – 15.5 fl oz In furrow rate: 0.4 – 0.8 fl oz/1000 row ft	123 fl oz or 3.8 qts (See label for additional use precautions)	Early and late blight, black dot, powdery mildew, black scurf, silver scurf
 Quadris Opti® Quadris Opti® fungicide provides superior preventive control of major diseases while still providing the same crop quality and yield benefits of Quadris fungicide.	12 hours	14 days	1.6 pts/A	1.5 lbs a.i. of azoxystrobin per acre/year or 11.25 lbs of chlorothalonil per acre/year	Early blight, late blight, black dot, powdery mildew
 Quadris Ridomil Gold® Quadris Ridomil Gold® fungicide is azoxystrobin and mefenoxam packed together to provide broad-spectrum disease control in potatoes.	0 hours	N/A	0.82 fl oz /1000 ft of row	Do not apply more than 1.5 lb. a.i. of azoxystrobin-containing products per acre per season Do not apply more than 0.5 lb. a.i. of mefenoxam-containing products per acre per season	<i>Rhizoctonia</i> canker, <i>Pythium</i> seedling blight and root rot, black dot, pink rot, leak
 Amistar® Top Amistar® Top fungicide offers growers a high level of activity and reliability. With two active ingredients for control of many important plant diseases, its low-use rates and application flexibility also make it a great addition to many Integrated Pest Management (IPM) programs.	12 hours	14 days	8 – 14 fl oz/A	55.3 fl oz/A	Black dot, brown spot, early blight, powdery mildew, <i>Septoria</i> leafspot
 Revus Top® Revus Top® fungicide with LOK + FLO™ action offers exceptional, broad-spectrum disease control. It combines a world-leading triazole with the active ingredient in the revolutionary Revus ¹ fungicide for better control of early and late blight.	12 hours	14 days	5.5 – 7 fl oz/A	28 fl oz/A/season Do not apply more than 0.46 lb a.i./A per season of difenoconazole-containing products	Early blight, late blight, black dot, brown spot, powdery mildew

¹ See supplemental label for specific use.

² Refer to label for specific instructions for use in conjunction with a non-ionic surfactant or crop oil concentrate.

FUNGICIDES

PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 RidomilGold® Ridomil Gold® SL is a highly active, soil-applied fungicide that controls Oomycete soil-borne diseases.	48 hours	N/A	0.42 fl oz/1000 row feet	0.34 lb a.i./A per crop of soil-applied product	Pink rot, <i>Pythium</i> spp., <i>Pythium</i> leak
 RidomilGold® Bravo	48 hours	14 days	2.5 pts/A	7.5 pts/A	Early blight, late blight, Storage rots: pink rot, <i>Pythium</i> leak
 RidomilGold® MZ	48 hours	14 days	2.5 lbs of product/A	10 lbs of product/crop/season	Early blight, late blight, Storage rots: pink rot, <i>Pythium</i> leak
 RidomilGold® Copper	48 hours	14 days	Apply 1 pack of Ridomil Gold Copper (5 lbs. product/2.5 A)	No more than 3 applications/crop (15 lb product/A)	Late blight, Storage rots: pink rot, <i>Pythium</i> leak

POSTHARVEST FUNGICIDES

PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 Stadium® Stadium® postharvest fungicide prevents the spread of silver scurf and Fusarium dry rot on potato tubers in storage. Stadium contains the active ingredients fludioxonil, azoxystrobin and difenoconazole. Stadium fungicide has been tested on most leading potato varieties stored for seed, process, chipping and fresh market.	N/A	N/A	Apply Stadium as a dilute spray of 1 fl oz of product in approximately 0.5 gallons of water carrier per 2,000 lbs of tubers.	Do not make more than one post-harvest application to the tubers.	Stadium is a broad-spectrum fungicide to reduce the spread of silver scurf and Fusarium dry rot in stored potatoes in varied storage conditions.

¹ See supplemental label for specific use.

² Refer to label for specific instructions for use in conjunction with a non-ionic surfactant or crop oil concentrate.

HERBICIDES & DESSICANTS

PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 Boundary® 6.5 EC herbicide is recommended for preemergence weed control prior to or after potato emergence. Boundary controls both grass and broadleaf weeds.	12 hours	Do not harvest within 60 days of the last Boundary application	1.5 – 2.9 pt/A — rate dependent on use pattern, soil texture and %OM (Refer to label for details) On sandy soils do not use more than 1.5 pts/A of Boundary or more than 0.5 lb a.i./A of metribuzin	See label for maximum rate allowed per acre per year Refer to label for important use precautions	Preemergence: Most annual grasses, yellow nutsedge and many annual broadleaf weeds including Eastern black nightshade, pigweeds, lambsquarters, Russian thistle, Jimsonweed, waterhemp, galinsoga, prickly sida and others
 Dual Magnum® herbicide is powerful chemistry that provides excellent control of grasses, nutsedge and small-seeded broadleaf weeds.	24 hours	60 days for at planting to drag-off application 40 days for a lay-by application	1 – 2 pts/A Rate dependent on use pattern, soil texture and %OM (Refer to the label for details)	3.6 pt/A Refer to label for important use precautions	Incorporated, preemergence and post-emergence layby
 Gramoxone® SL 2.0² nonselective herbicide controls grasses and broadleaf weeds. It is effective under a variety of conditions.	24 hours	N/A	1 – 2 pt/A (all states except CA, ID, OR, WA))	N/A	Preplant or preemergence
 Gramoxone® SL 3.0² nonselective herbicide controls grasses and broadleaf weeds. It is effective under a variety of conditions.	24 hours	Harvest at normal crop maturity	0.7 – 1.3 pt/A	1.3 pt/A Do not exceed 1.5lb ai/A/year of paraquat-containing products	Preplant or preemergence Refer to label for specific precautions
 Reflex® herbicide provides excellent preemergence control of a broad-spectrum of broadleaf weeds and suppression of yellow nutsedge in potato.	24 hours	70 days	1 pt/A	Do not exceed 1 pt/A/season Refer to Reflex regional use map for the maximum rate of Reflex that may be applied per year or alternate year in each geographic region	Broadcast preemergence application after planting but before potato emergence 24(C) labels in specific counties in OR and WA
 Reglone®² herbicide, the most frequently used desiccant in the world, provides fast and consistent crop desiccation.	24 hours	7 days	1 – 2 pts/A 5 day interval between applications is recommended	4 pt/A	Preharvest desiccation

Gramoxone SL 2.0 and Gramoxone SL 3.0 are Restricted Use Pesticides.

¹ See supplemental label for specific use.

² Refer to label for specific instructions for use in conjunction with a non-ionic surfactant or crop oil concentrate.

SOIL-APPLIED INSECTICIDES

PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 Platinum[®] 75 SG insecticide is a highly concentrated soil-applied formulation of thiamethoxam, which provides control of many sucking and chewing pests.	12 hours	N/A	1.66 – 2.67 oz/A	2.67 oz/A	Aphids, Colorado potato beetle, flea beetles, potato leafhoppers, potato psyllid, wireworm (seed pieces only)

FOLIAR-APPLIED INSECTICIDES

PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 Actara[®] is a foliar-applied insecticide that provides excellent control of many sucking and chewing pests.	12 hours	14 days	1.5 – 3 oz/A	6 oz/A	Colorado potato beetles, potato leafhoppers, flea beetles, aphids
 Agri-Mek[®] SC insecticide is based on chemistry with a unique mode of action that delivers long-lasting control of Colorado potato beetles, spider mites, psyllids and leafminers.	12 hours	14 days	1.75 – 3.5 fl oz plus a non-ionic surfactant ²	Do not apply more than 10.25 fl oz/A (or 0.056 lb a.i./A) of Agri-Mek SC or any other foliar-applied abamectin-containing product	Colorado potato beetle, spider mites, potato psyllid, leafminers
 Besiege[®] foliar insecticide combines two active ingredients in a convenient, economical premix formulation to provide fast knockdown and long-lasting residual activity on key lepidopteran pests, as well as effective control of multiple other pest species.	24 hours	14 days	5 – 9 fl oz/A	Do not exceed a total of 27 fl oz or 0.12 lbs a.i. of lambda-cyhalothrin-containing products or 0.2 lbs a.i. of chlorantraniliprole-containing products/A per year	Armyworms, Colorado potato beetle, European corn borer, flea beetles, loopers, potato tuberworm (Refer to label for complete listing)
 Endigo[®] ZC insecticide delivers three technologies with a proprietary Zeon[®] Concentrate formulation for fast knockdown and extended residual control of all major potato insect pests.	24 hours	14 days	2.5 – 4.5 fl oz/A (Check labeled rates based on pest pressures)	10 fl oz or 0.12 lbs a.i. of lambda-cyhalothrin-containing products or 0.094 lbs a.i. of thiamethoxam-containing foliar products/A per season	Colorado potato beetle, leafhoppers, aphids, psyllids, plant bugs, cutworms, potato tuber worm, grasshoppers (See label for complete list of pests controlled)
 Voliam Flexi[®] uses dual modes of action to control key sucking, chewing and lepidopteran pests in potatoes. Foliar application of Voliam Flexi exhibits excellent translaminar and locally systemic movement into plant tissue as well as accumulation on the leaf surface.	12 hours	14 days	4.0 oz/A	Do not exceed a total of 8.0 oz. of Voliam Flexi or 0.094 lb. a.i. of foliar applied thiamethoxam containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season	Aphids, beet armyworm, cabbage looper, Colorado potato beetle, European corn borer, flea beetles, potato leafhopper

Agri-Mek SC, Besiege and Endigo ZC are Restricted Use Pesticides.

¹ See supplemental label for specific use.

² Refer to label for specific instructions for use in conjunction with a non-ionic surfactant or crop oil concentrate.



FOLIAR-APPLIED INSECTICIDES

PRODUCT OVERVIEW	REI	PHI	RATE/ACRE	MAXIMUM/CROP	LABELED USES
 Minecto® Pro insecticide, a premix formulation of cyantraniliprole and abamectin, offers robust control of key potato pests, including Colorado potato beetle and potato psyllids. With two translaminar modes of action, Minecto Pro creates a reservoir of active ingredients, offering extended residual control of pests.	12 hours	14 days	5.5 – 10 fl oz/A	20 fl oz/A	Beet armyworm, Colorado potato beetle, European corn borer, <i>Liriomyza</i> leafminers, potato tuberworm, spider mites, yellowstriped armyworm, cabbage looper, green peach aphid, potato psyllid Suppression: potato aphid, potato flea beetle
 Warrior II with Zeon Technology® insecticide delivers a combination of consistently reliable performance, modern formulation technology and long residual insect protection for potatoes.	24 hours	7 days	0.96 – 1.92 fl oz/A	7.68 fl oz/A	Armyworms, potato tuber worm, cutworms, loopers, Colorado potato beetle, stinkbugs, plant bugs, flea beetles, grasshoppers, leafhoppers, aphids (Refer to label for complete listing)

¹ See supplemental label for specific use.

² Refer to label for specific instructions for use in conjunction with a non-ionic surfactant or crop oil concentrate.



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Product performance assumes disease presence.

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