

UPL Crop Establishment Product Profile



STartUP™ brand seed treatments mean the best in class quality in terms of physical and chemical parameters. They bring exceptional custom blend compatibility with polymers and colorants for a longer period compared with competitor products. STartUP brand components are superior in quality in terms of treatment performance such as uniform coverage, quick dryness, color strength, seed flow, low dust level and excellent distribution on the seed irrespective of seed type.

Seed Treatment Component INSECTICIDES for Custom Blending

Brand Name	Active Ingredient	A.I in lbs/gal	A.I in g/L	Packs	Crops and Use rates fl oz/cwt	Features
STartUP IMIDA	<i>Imidacloprid</i>	5.0	600	250, 30, 2x2.5	Canola: 10.24 - 25.6 Cotton: 12.8 Field Corn: 0.72 - 6.0 (various) Popcorn: 6.4 Small Grains: 0.8 - 2.4 Sorghum: 6.4 Soybean: 1.6 - 3.2 Sweet Corn: 0.8 - 6.4 (various)	STartUP IMIDA is a proven foundation insecticide seed treatment which can be applied across a diverse range of crops. It offers very reliable insect control. STartUP IMIDA controls thrips, aphids and soil pests. The systemic activity and the relatively low rate of application makes it user friendly for many complementary seed treatment blends.
STartUP ACE98	<i>Acephate</i>	n/a	980 g/kg	110 lb	Cotton: 4.5 - 6.4 oz	STartUP ACE98 is a broad-spectrum, systemic insecticide for cotton seed treatment. STartUP ACE98 is a water soluble insecticide that is rapidly absorbed by plant roots and provides systemic control of feeding insects even in marginal moisture at-plant scenarios. Excellent addition to STartUP IMIDA to control thiamethoxam (Cruiser® 5FS) resistant western flower thrips.

Seed Treatment Component FUNGICIDES for Custom Blending

Brand Name	Active Ingredient	A.I in lbs/gal	A.I in g/L	Packs	Crops and Use rates fl oz/cwt	Features
STartUP RANCONA® 3.8 FS	<i>Ipconazole</i>	3.77	452	30, 2x2.5	Beans: 0.085 Cotton: 0.051 - 0.34 Peas: 0.085 Small Grains: 0.051 - 0.085 Sorghum: 0.051 - 0.17 Soybeans: 0.085 Sunflower: 0.051 - 0.085	STartUP RANCONA 3.8 FS is a systemic and contact broad-spectrum fungicide seed treatment. RANCONA is recognized as a superior product for control of <i>Rhizoctonia solani</i> , <i>Fusarium spp.</i> , and <i>Phomopsis (Diaporthe)</i> .
STartUP RANCONA CTS	<i>Ipconazole</i>	0.209	25	250, 30	Beans: 1.53 Peas: 1.53 Small Grains: 0.92 - 1.53 Sorghum: 1.53 Soybeans: 1.53	RANCONA CTS is a systemic and contact broad-spectrum fungicide seed treatment that protects against a wide variety of seed- and soil-borne diseases.
	<i>Metalaxyl</i>	0.167	20			



Seed Treatment Component FUNGICIDES for Custom Blending (continued)

Brand Name	Active Ingredient	A.I in lbs/gal	A.I in g/L	Packs	Crops and Use rates fl oz/cwt	Features
STartUP RANCONA V 100 PRO FS	<i>Ipconazole</i>	0.208	25	30, 2x2.5	Cotton: 1.5 - 6.0 Dry Beans: 1.5 Peanut: 0.9 - 1.5 Small Grains: 0.9 - 1.5 Soybeans: 1.5	STartUP RANCONA V 100 PRO is a pre-blend containing <i>Ipconazole</i> and <i>Carboxin</i> . This combination provides industry leading control of <i>Rhizoctonia solani</i> , <i>Fusarium spp.</i> , and other seed and soil borne damping-off diseases. Two modes of action provides excellent resistance management.
	<i>Carboxin</i>	3.34	400			
STartUP METXL	<i>Metalaxyl</i>	2.65	317	250, 2x2.5	Canola: 0.25 - 0.5 Corn: 0.75 - 1.5 Cotton: 0.75 - 1.5 Peanut: 0.75 Small Grains: 0.75 - 1.5 Sorghum: 0.375 - 1.5 Soybeans: 0.75 - 1.5	STartUP METXL is a time tested, systemic fungicide seed treatment for control of water molds such as <i>Pythium spp.</i> and early season <i>Phytophthora spp.</i> STartUP METXL provides proven protection against these damping-off diseases that are not controlled by other seed treatment fungicides.
STartUP FLUDI	<i>Fludioxonil</i>	4.0	480	30, 4x1	Canola: 0.08 - 0.16 Corn: 0.08 - 0.16 Cotton: 0.08 - 0.16 Potato: 0.08 Small Grains: 0.08 - 0.16 Sorghum: 0.08 - 0.16 Soybeans: 0.08 - 0.16	STartUP FLUDI is a contact fungicide used for controlling seed- and soil-borne pathogens that affects emergence and stand. STartUP FLUDI provides excellent control of <i>Rhizoctonia solani</i> , <i>Fusarium spp.</i> , and other damping-off disease.
STartUP T-MTYL	<i>Thiophanate-methyl</i>	4.5	540	30, 2x2.5	Dry Beans: 0.14 - 0.28 Peanut: 0.14 - 0.28 Potato: 0.50 - 0.70 Soybeans: 0.14 - 0.28 Wheat: 0.14 - 0.28	STartUP T-MTYL is an effective systemic fungicide for seed treatment that provides early season protection of seedlings against <i>Rhizoctonia</i> , seedling blight and seed-borne <i>Sclerotinia spp.</i> in soybean and wheat. It is a great way to add an alternative effective mode of action to STartUP FLUDI.
STartUP TEBUZ	<i>Tebuconazole</i>	3.6	430	30, 4x1	Corn: 0.071 - 0.54 Small Grains: 0.073	STartUP TEBUZ provides excellent control of many seed- and soil-borne diseases in corn and small grains. It protects against diseases such as smuts and root rots. It has outstanding defense against soil-borne diseases with excellent crop safety.
STartUP MANZB	<i>Mancozeb</i>	4.0	480	2x2.5	Corn: 4.3 - 8.6 Cotton: 4.8 Peanut: 12.8 - 25.6 Potato: 1.6 - 2.5 Sorghum: 4.3 - 7.2 Wheat: 3.5 - 5.2	STartUP MANZB is a multiple site of action, broad-spectrum seed treatment with contact activity. Due to multiple sites of action there is currently no known resistance and can be incorporated as a resistance management tool. It provides excellent bio-stimulation due to Manganese and Zinc in the formulation. It is very complementary to current systemic standards.
STartUP AZOXY	<i>Azoxystrobin</i>	2.1	250	30, 4x1	Canola: 1.5 Corn: 0.04 - 0.19 Cotton: 0.4 - 1.5 Peanut: 0.25 - 0.3 Potato: 0.31 - 1.5 Rice: 0.25 - 1.5 Soybeans: 0.06 - 0.3 Sunflower: 0.25 - 1.8 Tomato: 0.25 - 1.5 Wheat: 0.25 - 1.5	STartUP AZOXY is a seed treatment with broad-spectrum and systemic activity that provides improved disease protection and control against a range of fungal pathogens including <i>Rhizoctonia solani</i> , and <i>Pythium spp.</i> that cause decay, damping-off and seedling blight.
STartUP VITAVAX®-34	<i>Carboxin</i>	3.34	400	30, 2x2.5	Barley: 2 - 3 Beans: 3 - 4 Corn: 2 - 4 Cotton: 4 - 8 Oats: 2 - 3 Soybeans: 3 - 4 Triticale: 2 - 3 Wheat: 2 - 3	VITAVAX-34 is a systemic broad-spectrum fungicide that protects against a wide variety of seed- and soil-borne diseases. VITAVAX-34 has long been a standard for control of <i>Rhizoctonia solani</i> while also being effective against loose smuts, covered smut, common bunt, and other damping off diseases.



Seed Treatment Component FUNGICIDES for Custom Blending (continued)

Brand Name	Active Ingredient	A.I in lbs/gal	A.I in g/L	Packs	Crops and Use rates fl oz/cwt	Features
STartUP THIRAM 480 DP	<i>Thiram</i>	4.0	480	2x2.5	Beans: 3 Canola: 6.4 Field Corn: 2.7 Grasses: 8 Small Grains: 3.3 Soybeans: 2 Rice: 3	THIRAM 480 DP helps to increase stands and yields by reducing losses from seed decay, damping-off and seedling blights caused by many seed- and soil-borne diseases.
STartUP VITAFLO®-280	<i>Carboxin</i>	1.45	174	2x2.5	Barley: 3 - 5 Beans: 4 Corn: 4.5 - 11 Oats: 5 Rice: 3.4 - 4.5 Soybeans: 4 Triticale: 3 Wheat: 3.5 - 5	VITAFLO-280 seed treatment combines systemic and contact fungicides to provide plant protection against seed- and soil-borne seedling diseases, resulting in optimum germination of the seed and reliable stand establishment.
	<i>Thiram</i>	1.23	147			

Ready to Use Seed Treatment Products

Brand Name	Active Ingredient	A.I in lbs/gal	A.I in g/L	Packs	Crops and Use rates fl oz/cwt	Features
RANCONA CREST	<i>Ipconazole</i>	0.0384	4.6	250, 30,	Barley: 5 - 8.33 Oats: 5 - 8.33 Rye, Triticale: 5 - 8.33 Wheat: 5 - 8.33	RANCONA CREST seed treatment is an advanced generation seed treatment for cereals with two powerful fungicides combined with a systemic insecticide delivered at the highest rate of any ready-to-use seed treatment to protect seed and seedlings from pests and diseases.
	<i>Metalaxyl</i>	0.0513	6.15	2x2.5		
	<i>Imidacloprid</i>	1.286	154			
RANCONA SUMMIT	<i>Ipconazole</i>	0.080	9.6	250, 30,	Beans: 4.0 Peas: 4.0 Small Grains: 2.5 - 4.0 Soybeans: 4.0	RANCONA SUMMIT seed treatment protects crops by combining two powerful fungicides that control both seed- and soil-borne diseases, including seed-borne <i>Ascochyta</i> , with the superior coverage and adhesion of RANCONA microdispersion (MD) technology. You have a ready-to-use seed treatment that provides more vigorous and uniform crop emergence for healthy stands.
	<i>Metalaxyl</i>	0.128	15.4	2x2.5		
RANCONA V RTU FS	<i>Ipconazole</i>	0.042	5.0	250, 30,	Dry Beans: 4.6 Small Grains: 4.6 Soybeans: 4.6	RANCONA V RTU seed treatment is three powerful fungicides that provide both contact and systemic activity against a broad spectrum of yield-robbing wheat diseases. With the superior coverage and adhesion of RANCONA flowable application technology, you have a safe seed treatment for cereals that delivers more consistent protection under a wider range of conditions.
	<i>Metalaxyl</i>	0.111	13.3	2x2.5		
	<i>Carboxin</i>	1.11	133.0			
RANCONA V PD	<i>Ipconazole</i>	1.0%	n/a	50 lb	Peanut: 4.0	RANCONA V PD is a dust seed treatment that provides both contact and systemic activity, which leads to broad-spectrum control of key peanut diseases including seed rots, damping-off and seedling blights caused by <i>Rhizoctonia</i> , <i>Fusarium</i> and <i>Pythium</i> , as well as seedling-stage crown rot caused by <i>Aspergillus niger</i> . With its three different active ingredients, it is a great way to battle early stand loss from strobilurin resistant seedling diseases that are becoming increasingly prevalent in peanut producing areas.
	<i>Carboxin</i>	16.0%	n/a			
	<i>Metalaxyl</i>	0.8%	n/a			

Seed Treatment Herbicide Safeners

Brand Name	Active Ingredient	A.I in lbs/gal	A.I in g/L	Packs	Crops and Use rates fl oz/cwt	Features
MESH™-40WP	<i>Flurazole</i>	n/a	400 g/kg	55 lb	Sorghum: 2.2 - 2.8	MESH-40WP provides industry leading safety for germinating grain sorghum by reducing seedling injury and stand loss caused by chloroacetamides. When herbicides containing the active ingredients metolachlor, s-metolachlor, acetochlor and dimethenamide are applied at high rates it provides superior safety when compared to other sorghum safening products.



Planter Box/Specialty Use Products

Brand Name	Active Ingredient	A.I in lbs/gal	A.I in g/L	Packs	Crops and Use rates fl oz/cwt	Features
BEAN GUARD®/ Allegiance®	<i>Carboxin</i>	12.5%	n/a	4x5 lb	Soybeans: 2 oz/60 lbs	BEAN GUARD/Allegiance is a planter-box treatment that combines systemic and contact activity to control certain seed and seedling diseases in soybeans. It is effective against <i>Pythium</i> and <i>Rhizoctonia</i> and shows good activity against <i>Fusarium</i> and <i>Helminthosporium</i> . BEAN GUARD/Allegiance also provides 0.2 ounce of molybdenum per acre for plant nutrition and nitrogen fixation.
	<i>Captan</i>	24.45%	n/a			
	<i>Metaxyl</i>	3.75%	n/a			
	<i>Molybdenum</i>	11.9%	n/a			
ENHANCE®	<i>Carboxin</i>	20.00%	n/a	4x5 lb	Small Grains: 4 oz/cwt Soybeans: 5 oz/cwt	ENHANCE is a planter-box seed treatment that controls covered and loose smut on wheat, barley and oats. It reduces seed rot and seedling blight caused by soil fungi. ENHANCE also protects soybean seed from seed- and soil-borne fungi that causes seed decay, damping-off and seedling blights.
	<i>Captan</i>	19.55%	n/a			
PRO-GRO®	<i>Carboxin</i>	30.0%	n/a	25 lb	Onion: 1.5 - 2.5 lbs/cwt	PRO-GRO is a dust applied seed treatment for control of onion smut (<i>Urocystis spp.</i>) on onion seed.
	<i>Thiram</i>	50.0%	n/a			

In-furrow Spray, Starter Fertilizer Compatible Products

Brand Name	Active Ingredient	A.I in lbs/gal	A.I in g/L	Packs	Crops and Use rates fl oz/cwt	Features
TEPERA® PLUS	<i>Fluoxastrobin</i>	0.83	100	2x2.5	Canola: 5.1 - 12.5 Corn: 5.2 - 27.8 Dry Beans: 4.0 - 15.4 Dry Peas: 4.0 - 15.4 Fruiting Vegetables: 9.2 - 15.4 Leaf Petiole Veges: 9.2 - 17.0 Potato: 5.1 - 18.5 Soybean: 5.1 - 15.4	TEPERA PLUS brings the best of TEPERA and BIFENTURE LFC together for protection against both below ground insects and soil borne disease. Many other products that offer this combination of protection require special equipment or do not stay in solution for uniform application causing injury that is uneven throughout the field. TEPERA PLUS is an excellent solution to help mitigate early season stress caused by cool wet conditions and exacerbated by insects such as wireworms and grubs.
	<i>Bifenthrin</i>	0.82	98			
BIFENTURE® LFC	<i>Bifenthrin</i>	1.5	180.0	250, 2x2.5	Brassicas: 3.4 - 8.5 Citrus: 8.5 - 42.5 Corn: 3.4 - 17.0 Dry Beans: 3.4 - 8.5 Dry Peas: 3.4 - 8.5 Fruiting Vegetables: 3.4 - 8.5 Leaf Petiole Veges: 3.4 - 8.5 Sod: 2.8 - 17.42 Succulent Beans/Peas: 3.4 - 8.5	BIFENTURE LFC is an excellent addition to any starter liquid fertilizer program for below ground pests. BIFENTURE LFC is formulated to work with your preferred starter fertilizer program and is easier to handle than granular insecticide. Bifenthrin has a long lasting soil residual profile that creates a zone of inhibition from white grubs, wireworms and seed corn maggots. As failures of corn traits continue or hybrids that have a single trait are used, BIFENTURE LFC is an excellent addition for managing the early season feeding that causes late season water stress and lodging from root pruning.
TEPERA	<i>Fluoxastrobin</i>	1.82	219.0	2x2.5	Corn: 4.2 - 12.6 Dry Beans: 4.0 - 15.4 Dry Peas: 4.0 - 15.4 Fruiting Vegetables: 4.2 - 12.6 Leaf Petiole Veges: 12.6 Peanut: 6.1 - 12.6 Potato: 4.2 - 9.2 Rice: 6.3 - 12.6 Sorghum: 4.2 - 9.2 Soybeans: 4.2 - 12.6 Wheat: 4.2 - 8.4	TEPERA is a group 11 fungicide that provides protection against a broad range of diseases both foliar and in-furrow. TEPERA contains the active ingredient <i>fluoxastrobin</i> that when applied in-furrow provides excellent protection against yield robbing soil-borne diseases like <i>rhizoctonia</i> root rot. TEPERA's <i>fluoxastrobin</i> is one of the longest lasting soil residual fungicides available today. This residual provides plant health benefits well into the season when other fungicides have long run out of protection. When your crop is better able to manage stress, it is setting yield early translating to increased profitability come harvest.

To learn more, talk to your local UPL representative or retailer,
visit our website at www.upl-ltd.com/us or call 1-800-438-6071.



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