

2021 Seed Treatment Product Reference Guide

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Our fully integrated seed treatment portfolio offers the most diversified line of products, along with robust formulations, so growers can improve their seed performance and protect their valuable seed investments. From chemistry and advanced biologicals to inoculants and plantability polymers and colorants, our products protect seeds from germination to emergence, promote early-season vigor, limit disease and insect pressure, and provide tested Plant Health benefits including improved cold and drought tolerance. With the industry's leading seed treatment specialists and decades of pioneering research, we connect innovative thinking and practical action, driving toward one goal: giving every seed every advantage.

OUR GOAL:

Giving every seed every advantage.



Soybean Seed Treatments 📎



The Fungicide	Early-Season	SDS & Nematode	Inoculate	Boost
Foundation	Insect Control	Control	and Protect	Performance
Obvius Plus	Poncho® XC	Seed Treatment	Vault IP Plus	Relenya [®]
Fungicide Seed Treatment	Seed Treatment		Seed Treatment	Seed Treatment
Broad spectrum 4-way disease protection with early-planting benefits	Powerful protection against damaging early season insects	The only proven winner against both SDS and nematodes	Two biofungicides plus inoculant for vigorous roots, increased nutrient uptake and plant growth	Adds to a base foundation to boost disease control and yield potential

Fungicide and Nematicide Seed Treatments

Product	Key Disease/Pests	Standard Use Rate	Key Benefits
Obvius® Plus Fungicide Seed Treatment	PhytophthoraPythiumFusariumRhizoctonia	■ 0.71 fl. oz/140,000 seeds	 Long-lasting, 4-way disease protection against key early fungal diseases Provides stress tolerance in early planting conditions Enables outstanding early season vigor and plant stands
Relenya® Seed Treatment	FusariumRhizoctonia	■ 0.2-0.4 fl. oz/cwt	 Innovative cutting-edge protection built on new Revysol[®] technology Adds to a base foundation to boost disease protection under Fusarium and Rhizoctonia pressure Partners with a base package to boost yield potential under varied levels of disease pressure
ILEVO® Seed Treatment	 Sudden Death Syndrome Nematodes 	 SDS + Nematode rate: 1.18 fl. oz/140,000 seeds (0.15 mg ai/seed) Nematode rate: 0.6 fl. oz/140,000 seeds (0.075 mg ai/seed) 	 Proven protection against above-and below ground phases of SDS Broad spectrum protection against multiple species of nematodes, including Soybean Cyst, Root-Knot and Reniform nematodes Trusted and proven on millions of acres, year over year over year



Insecticide Seed Treatments*

Product	Key Disease/Pests	Standard Use Rate	Key Benefits
Poncho® XC Seed Treatment	 Early season insects: aphids, bean leaf beetle, grape colaspis, leafhopper, seedcorn maggot, three cornered alfalfa hopper, thrips, white grubs, wireworm 	 0.87 fl. oz/140,000 seeds (0.11 mg ai/seed) 	 Delivers immediate insect efficacy to protect against damage from early season insects Highest intrinsic activity at the CNI receptor in chemical class Systemic mode of action protects the entire plant, supporting healthier plant establishment
Poncho Votivo® Seed Treatment	 Early season insects: aphids, bean leaf beetle, grape colaspis, leafhopper, seedcorn maggot, three cornered alfalfa hopper, thrips, white grubs, wireworm Nematodes 	 1.02 fl. oz/140,000 seeds (0.13 mg ai/seed) 	 Delivers immediate insect efficacy to protect against damage from early season insects Creates a living barrier that protects soybean roots from damage from multiple generations of nematodes Provides a consistent yield benefit across a wide range of geographies and environments

Colors and Coatings

Product	Technology	Standard Use Rate	Key Benefits
Color Coat	Colorant	■ 0.20-0.71 fl. oz/cwt	 Effectively colors any seed, regardless of size, shape or texture for functional and aesthetic uses Available in a variety of vibrant colors to add a distinctive appearance to seed
Flo Rite [®] 1706 Plantability Polymer	Plantability Polymer	■ 1.0 fl. oz/cwt	 Improves uniform coverage and application of seed-applied insecticides and fungicides Reduces stickiness, seed bridging, clumping, skips and doubles Delivers best-in-class retention of active seed treatment ingredients

Inoculants

Product	Key Disease/Technology	Standard Use Rate	Key Benefits
Vault® IP Plus Seed Treatment Liquid	Rhizobial inoculant/ Biofungicide Rhizoctonia Fusarium	 1.1 fl. oz/cwt or 0.51 fl. oz/140,000 seeds 	 Best-in-class nitrogen fixation with proven, superior rhizobial strain EPA registered, dual-strain biofungicide promotes more vigorous roots and increased nutrient uptake Lowest application volume inoculant/biofungicide treatment available in the market Fewer components for less waste, more time saving and more treated units per case
Vault NP for Soybeans Inoculant Liquid	 Liquid soybean inoculant for seed treatment or in- furrow application 	 4.2 fl. oz/cwt (on seed) or 1.96 fl. oz/140,000 seeds 	 Highly effective rhizobia strain and OMRI listed Apply directly to seed or in-furrow Convenient commercial application or on-farm use
Vault SP for Soybeans Inoculant Peat-based	 Rhizobial soybean inoculant for on-farm, planter box treatment 	■ 2.8 oz/cwt	 Sterile, peat-based carrier for durable and high rhizobia potency Easily applied in planter box with excellent adhesion to seed
Rhizo-Flo® for Soybeans Inoculant <i>Granular</i>	 Granular peat soybean inoculant for in-furrow or double inoculation uses 	6.5 lbs/acre (drilled seeding)	 Granular formulation helps protect rhizobia from high surface soil temperatures and dry soil conditions Contains highly effective rhizobial strain Supplies large number of viable and effective rhizobia directly to the root zone

*Poncho XC Seed Treatment and Poncho Votivo Seed Treatment applied to soybean seed with the multifunctional coating Flo Rite 1706 plantability polymer at the recommended rates provides excellent dust control. Always follow planter manufacturer recommendations for the proper use of planter lubricants.



Product Spotlight

Stamina[®] F4 Cereals

Fungicide Seed Treatment

Stamina F4 Cereals fungicide is the first seed treatment engineered with Xemium[®] brand fungicide, which adds unique plant mobility and translocation to ensure the fungicide spreads throughout the entire plant, from roots to shoots. This systemic disease protection delivers control above and below ground, and allows for extended residual disease control. It also contains the active ingredient F500[®] fungicide, which works with Xemium fungicide to deliver protection in the earliest development stages, which leads to improved stress and cold tolerance and more rapid emergence, the foundations for healthier crops and better yield potential.

Fungicide and Insecticide Seed Treatments

Product	Key Disease/Pests	Standard Use Rate	Key Benefits
Stamina® Fungicide Seed Treatment	Control of seedling disease caused by: <i>Rhizoctonia solani</i> <i>Penicillium oxalicum</i> Suppression of seed and seedling disease caused by: <i>Aspergillus</i> spp. <i>Fusarium</i> spp. <i>Pythium</i> spp.	 0.4-0.8 fl oz/100 lbs seed; Please refer to label for rates 	 Faster emergence, excellent cold tolerance Flexible blending partner for customized mixtures
Stamina® F4 Cereals Fungicide Seed Treatment	 Fusarium seed rot and seedling blight Fusarium crown and root rot* Pythium damping off Rhizoctonia root rot Common root rot Covered smut Dry seed decay False loose, loose and true loose smut Common bunt Flag smut 	4.6 fl oz/100 lbs seed	 Broad spectrum protection with four modes of action in one formulation including Xemium® and F500® technologies Cold tolerance, rapid emergence and highly systemic disease protection against key seedling diseases Flexible blending partner for customized mixtures Unique, systemic activity provides longer and more complete disease protection Labeled on wheat, barley, oats, triticale and rye

*Labeled for suppression.



Product	Key Disease/Pests	Standard Use Rate	Key Benefits
Poncho® XC Seed Treatment	 Aphids including Bird cherryoat, English grain, Greenbug, and Russian wheat aphid Hessian fly Wireworms 	 0.25-1.79 fl oz/100 lbs seed; Please refer to label for rates 	 Systemic insect protection from early season damage Labeled on barley, buckwheat, millet, oats, rye, teosinte, triticale and wheat
Relenya® Fungicide Seed Treatment	 Dwarf bunt Common root rot Common bunt <i>Fusarium</i> <i>Rhizoctonia</i> 	 0.2-0.4 fl oz/100 lbs seed; Please refer to label for rates 	 Unique seed-applied azole innovation from Revysol[®] active ingredient Excellent control of dwarf bunt and seedling diseases and protects seed and root zone during early development Highly flexible blending partner Labeled on barley, buckwheat, millet, oats, rye, triticale and wheat
Teraxxa™ Seed Treatment (Anticipated sales Jan 2021)	 Wireworms 	Pending State Registrations	New mode of action for true in-season control and effective management of wireworms
Teraxxa F4 Seed Treatment (Anticipated sales Jan 2021)	 Wireworms Fusarium seed rot and seedling blight Fusarium crown and root rot* Pythium damping off Rhizoctonia root rot Common root rot Covered smut Dry seed decay False loose, loose and true loose smut Common bunt Flag smut 	 Pending State Registrations 	 Blockbuster 5 MoA seed treatment for wireworm control and broad-spectrum disease control New mode of action for true in-season control and effective management of wireworms Broad spectrum protection with four modes of action in one formulation including Xemium® and F500® technologies Cold tolerance, rapid emergence and highly systemic disease protection against key seedling diseases Flexible blending partner for customized mixtures Unique, systemic activity provides longer and more complete disease protection Labeled on wheat, barley, oats, triticale and rye

Fungicide and Insecticide Seed Treatments, cont.

Colors and Coatings

Product	Technology	Standard Use Rate	Key Benefits
Color Coat	 Colorant 	 0.20-1.20 fl oz/cwt (wheat) 	 Effectively colors any seed, regardless of size, shape or texture for functional and aesthetic uses Water-based, low viscosity solution with neutral pH that offers convenience and easy cleanup Available in a variety of vibrant colors to add a distinctive appearance to seed
Flo Rite® 1197 Plantability Polymer	Plantability Polymer	2.0 fl oz/cwt (wheat)	 Improves uniform coverage and application of seed-applied insecticides and fungicides Reduces stickiness, seed bridging, clumping, skips and doubles Delivers best-in-class retention of active seed treatment ingredients



Inoculant Seed Treatments

Product	Technology	Standard Use Rate	Key Benefits
Nodulator® Duo SCG Granular Inoculant for Peas and Lentils	 Solid core granule 	■ 3.3 lbs/A	 Top-performing strain of rhizobium specifically selected for peas and lentils Guaranteed to contain a minimum of 8 x 10⁷ viable cells of <i>Rhizobium leguminosarum</i> biovar viceae per gram and 2 x 10⁸ viable cells of <i>Bacillus subtilis</i> per gram. Root-strengthening biofilm bacterium helps in water and nutrient uptake Technologically advanced multi-layered granular carrier for rhizobia
Nodulator Granular Inoculant for Peas and Lentils	 Peat granular based 	■ 6.5 lbs/A	 Proven rhizobia strain in a convenient peat- based formulation Convenient soil application Pelletized particles remain intact for excellent integrity through application equipment Superior rhizobia dominate nodule sites for more effective nitrogen fixation
Nodulator Liquid Inoculant for Peas and Lentils	 Liquid rhizobial inoculant OMRI Listed 	2.5 fl oz/60 lbs of seed	 High levels of rhizobia in a liquid formulation Sterile production ensures more than 750 million rhizobia per milliliter Simple to use planter box or commercial bulk-seed treatment* Unique, crop-specific strain chosen for its effectiveness on peas and lentils
Nodulator Self-Adhering Inoculant for Peas and Lentils	 Sterile peat-based 	 1.9 oz/60 lbs of seed 	 Advanced self-adhering properties for more uniform seed coverage Sterile production provides more than 1 billion rhizobia per gram Sterile, peat-based carrier for high rhizobia potency Easily applied by mixing with seed directly in planter box
Nodulator Granular Inoculant for Chickpea	Clay-based solid core granule	■ 5 lbs/A	 Unique solid core granule formulation for more uniform size and lower dust Improved performance in application equipment Chickpea specific rhizobia strain

Product	Key Disease/Pests	Standard Use Rate	Key Benefits
Obvius® Fungicide Seed Treatment	Root rot, seed rot and seedling blight caused by: <i>Fusarium</i> spp <i>Pythium</i> spp <i>Rhizoctonia solani</i>	4.6-9.2 fl ozs/100 lbs seed	 Broad spectrum disease control for [crop subgroup 6C] shelled pea and bean (except soybean), including lentils, field pea, chickpea, drybean; [crop subgroup 20A] rapeseed, including canola and canola oil quality mustards and flax.



Fungicide and Insecticide Seed Treatments

Product	Key Disea	ase/Pests	Key Benefits
Poncho® 600 Seed Treatment	 Corn rootworm* Southern corn billbug* Chinch bug Corn flea beetle Black cutworm Corn lead aphid Grape colaspis 	 Seedcorn maggot Southern green stinkbug Storage pests Sugarcane beetles White grubs Thrips Wireworms 	 Delivers immediate insect efficacy to protect against damage from early season pests Provides a consistent yield benefit across a wide range of geographies and environments
Poncho Votivo® Seed Treatment	 Corn rootworm* Southern corn billbug* Chinch bug Corn flea beetle Black cutworm Corn lead aphid Grape colaspis Seedcorn maggot 	 Southern green stinkbug Storage pests Sugarcane beetles White grubs Thrips Wireworms Plant pathogenic nematodes 	 Delivers immediate insect efficacy to protect against damage from early season pests Creates a living barrier that protects corn roots from damage from multiple generations of nematodes Provides a consistent yield benefit across a wide range of geographies and environments
Poncho Votivo 2.0 Seed Treatment System	 Corn rootworm* Southern corn billbug* Chinch bug Corn flea beetle Corn lead aphid Grape colaspis Seedcorn maggot 	 Southern green stinkbug Storage pests Sugarcane beetles White grubs Thrips Wireworms Plant pathogenic nematodes 	 Delivers immediate insect efficacy to protect against damage from early season pests Creates a living barrier that protects corn roots from damage from multiple generations of nematodes Provides a consistent yield benefit across a wide range of geographies and environments Increases native soil microbial activity, leading to a healthier plant with higher yield potential
Stamina® Fungicide Seed Treatment	Control of seedling disease caused by: <i>Rhizoctonia solani</i> <i>Penicillium oxalicum</i>	Suppression of seed and seedling disease caused by: • <i>Aspergillus</i> spp. • <i>Fusarium</i> spp. • <i>Pythium</i> spp.	 Faster emergence, excellent cold tolerance Flexible blending partner for customized mixtures Labeled on field corn, popcorn, seed production corn and sweet corn

Colors and Coatings

Product	Technology	Key Benefits	
Color Coat		 Effectively colors any seed, regardless of size, shape or texture for functional and aesthetic uses 	
	Colorant	 Water-based, low viscosity solution with neutral pH that offers convenience and easy cleanup 	
		 Available in a variety of vibrant colors to add a distinctive appearance to seed 	

*Provides protection against corn rootworms and southern corn billbugs under low to moderate pressure.



Only Available on BASF's Stoneville® and FiberMax® Cotton Seed

Product	Key Disease/Pests	Key Benefits
Copeo® Seed Treatment	Root-knot nematodesReniform nematodes	 Unique mode of action Superior protection where it matters most: at the roots Healthier root and plants for higher yield potential Active ingredient can still be found in the roots 40 days after planting

Peanut Seed Treatments 🔗

Inoculants

Product	Technology	Standard Use Rate	Key Benefits
Vault® Liquid Peanut Inoculant plus Integral®	 Liquid soil-applied inoculant plus biofungicide 	■ 14 fl oz/A	 Integral biofungicide extends disease suppression and enhances nodulation, root-vigor and nutrient uptake Guaranteed fresh for maximum effectiveness
Vault SP Inoculant for Peanuts	 Sterile peat based formulation for on-farm planter box treatment 	■ 7.0 oz/cwt	 Fresh, high-potency, sterile peat- based inoculant High adhesion level for effective seed coverage Mixed directly in the planter box with seed



Polymers and Colorants

Product	Cı	ор	Standard Use Rate	Key Benefits			
Plantability Polymers							
Flo Rite [®] 1706 Plantability Polymer	■ Soybean		 w/Fungicide – 1.0 fl oz/cwt w/Fungicide and Insecticide – 1.0 fl oz/cwt 	 Lower, uniform application rate, and better performance through treatment and handling equipment. Rhizobia- friendly formulation. 			
Flo Rite 1197 Plantability Polymer	CornWheatSunflower		 Corn – 2.0 fl oz/cwt Corn w/Neonic Insecticide (@ 0.25mg ai/seed – 2.0 fl oz/cwt) (@ 0.50mg ai/seed – 4.0 fl oz/cwt) (@ 1.25mg ai/seed – 9.5 fl oz/cwt) Sunflower – 6.0 fl oz/cwt 	 Polymer for corn, sunflowers, sweet corn, and wheat 			
			■ Wheat: 1.0 – 2.0 fl oz/cwt				
Binding Polymers							
CF Neutral™ Binding Polymer	CornSorghumSoybean	WheatSunflowerPeas	 Corn, Soybean, Wheat, Peas: 0.80 - 3.20 fl oz/cwt Sorghum: 0.80 - 4.80 fl oz/cwt Sunflower: 1.60 - 6.40 fl oz/cwt 	 Binding polymer with glossy appearance 			
Custom Seed Gloss 661	CornSorghumSoybean	WheatAlfalfaEdible Beans	 Corn, Soybean: 0.50 – 1.50 fl oz/cwt Sorghum, Wheat: 1.00 – 5.00 fl oz/cwt Sunflower: 2.00 – 6.00 fl oz/cwt Alfalfa, Edible Beans: Consult manufacturer Cotton: 4-10 fl oz/cwt 	 Adds a shimmery, pearlescent effect to any colorant for a high-impact appearance seed coat color 			
Secompla™ 67C Binding Polymer	CottonCanola		 Cotton: 1.00 – 2.00 fl oz/cwt Canola: 0.50 – 2.00 fl oz/cwt 	 High binding-strength polymer 			
Seed Buildup Polymer							
Equate [™] Polymer	Canola	 Alfalfa 	 Contact manufacturer for specific rates 	 Small seed coating and build up 			
Colorants							
Color Coat Red	Corn			Five ready-to-use			
Color Coat Green	SorghumSoybean		 Sorghum: 0.30 – 0.60 fl oz/cwt 	color choices			
Color Coat Blue	 Wheat 	 Soybean, Beans, Peas: 0.20-0.71 fl oz/ Wheat: 0.20 – 1.20 fl oz/cwt 					
Color Coat White	 Sunflower 						
Color Coat Purple	BeansPeas			seed coat color			
Seed Luster	 Corn Sorghum Soybean Wheat Sunflower Beans Peas 		 2.8-14 g/100 lbs of seed 	 Top-performing seed gloss provides luster and shine while perfecting appearance of seed Convenient dry powder formulation Reduces stickiness inside treater drum Compatible with all Color Coat products 			





Always read and follow instructions.

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Copeo, Credenz, FiberMax, Flo Rite, F500, ILEVO, Integral, Nodulator, Obvius, Poncho, Relenya, Revysol, Rhizo-Flo, Stamina, Stoneville, Vault, Votivo and Xemium are registered trademarks and CF Neutral, Secure, Equate and Teraxxa are trademarks of BASF. ©2020 BASF Corporation. All rights reserved. APN# 1909002 Seed Treatment Product Reference Guide-2021