

# SEED TREATMENT & INOCULANT GUIDE 2022.

CEREALS | PULSES | INOCULANTS



INOCULANTS  
PULSES  
CEREALS

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# IT ALL STARTS HERE.

Before the first seed goes in the ground you need to make decisions that will determine the course of your crop year. We're here to help you get your crops off to the best start possible so that you can take off the best crops possible.

Our local experts are your helping hands in selecting the right products for your farm and growing conditions. Together we will give your crop the best start towards achieving maximum yields.

Your UFA Customer Account Manager ensures you have the products you need for the entire growing season. Achieving optimum yield begins with the right seed treatment and inoculant backed by our full range of crop protection products.

A man with glasses, wearing a dark blue polo shirt with the UFA logo, stands in a field of tall grass. The background is a blurred landscape under a bright sky.

**SEED TREATMENT IS YOUR  
MOST ECONOMICAL DECISION  
TO HELP AGAINST COLD WET  
SPRINGS AND POTENTIAL  
ROOT ROT AND SEED BLIGHT  
SEED TREATMENT.**

**NEIL PUGH > CUSTOMER ACCOUNT MANAGER, VERMILION**

# CEREALS

**Start your cereals off right to maximize both yield and quality this season. We're your helping hand to guide you in selecting from our wide range of seed treatment products designed to protect your crop from early season insects and disease.**





## **AMPLIFY YOUR EMERGENCE AND YIELD POTENTIAL.**

Quick germination, maximum vigour and rapid growth are the hallmarks of healthy, strong crop emergence and promising yield potential.

This is when young plants need all the essential nutrients they can get, and you can deliver that to them with Amplify®, a seed-applied essential nutrient product that helps cereal crops better withstand early-season stressors for a stronger, healthier start.

Amplify for cereals was designed specifically for the growing conditions of Western Canada. Just ask for Amplify to be applied to your treated cereal seed (treat first, then apply Amplify).



0-7-1 + 4Zn + 2Cu + 1Mn +  
0.125B + Transit-S

Rate: 3 ml/kg seed

Crop Stage: Seed Treatment

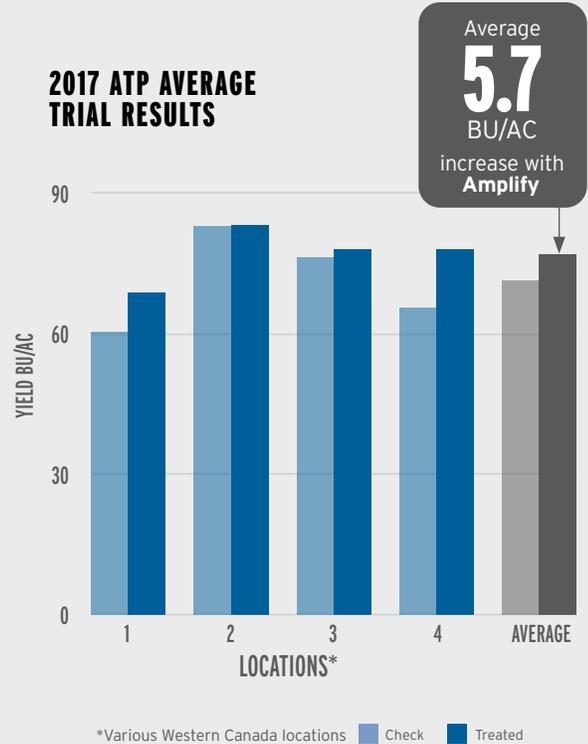


Check

Amplify

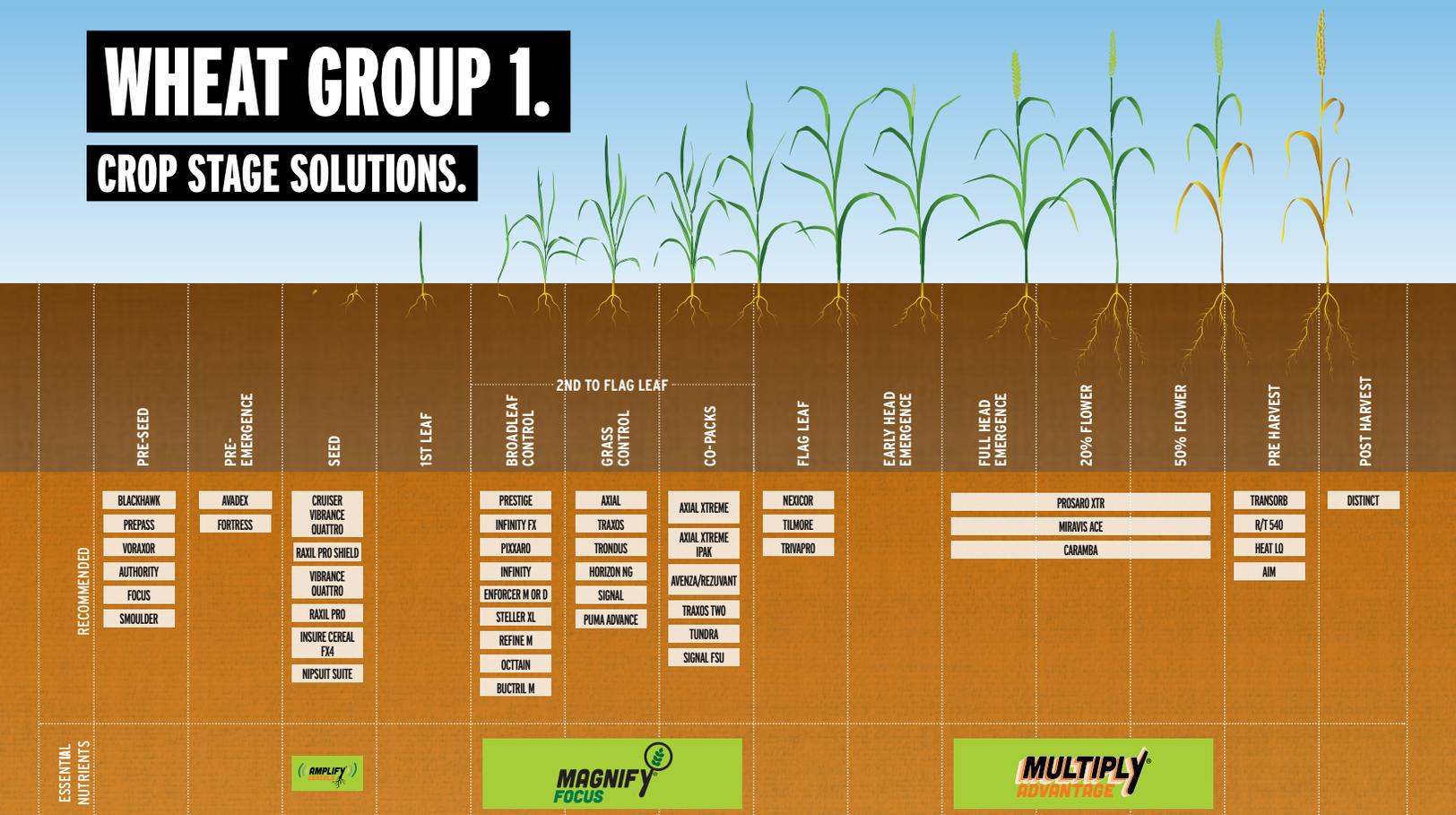
POWERED BY **Transit-S** 

## 2017 ATP AVERAGE TRIAL RESULTS



# WHEAT GROUP 1.

## CROP STAGE SOLUTIONS.



## THE KEYS TO GOOD CROP ESTABLISHMENT:

- **STARTS WITH THE SEED. HAVING YOUR SEED TESTED FOR GERMINATION AND VIGOR WILL GIVE YOU A GREAT START**
- **ADDING SEED TREATMENT TO THE SEED PROTECTS IT FROM SEED AND SOIL BORNE DISEASES.**
- **EARLY SEASON WEED CONTROL WITH GLYPHOSATE AND A PRE-SEED PRODUCT WILL AID IN STAND ESTABLISHMENT AND SAVE THE NUTRIENTS IN YOUR SOIL FOR GROWING THE CROP, NOT WEEDS.**

**BRUCE KEMMERE > CUSTOMER ACCOUNT MANAGER, OLDS**



# CEREAL SEED TREATMENT COMPARISON.

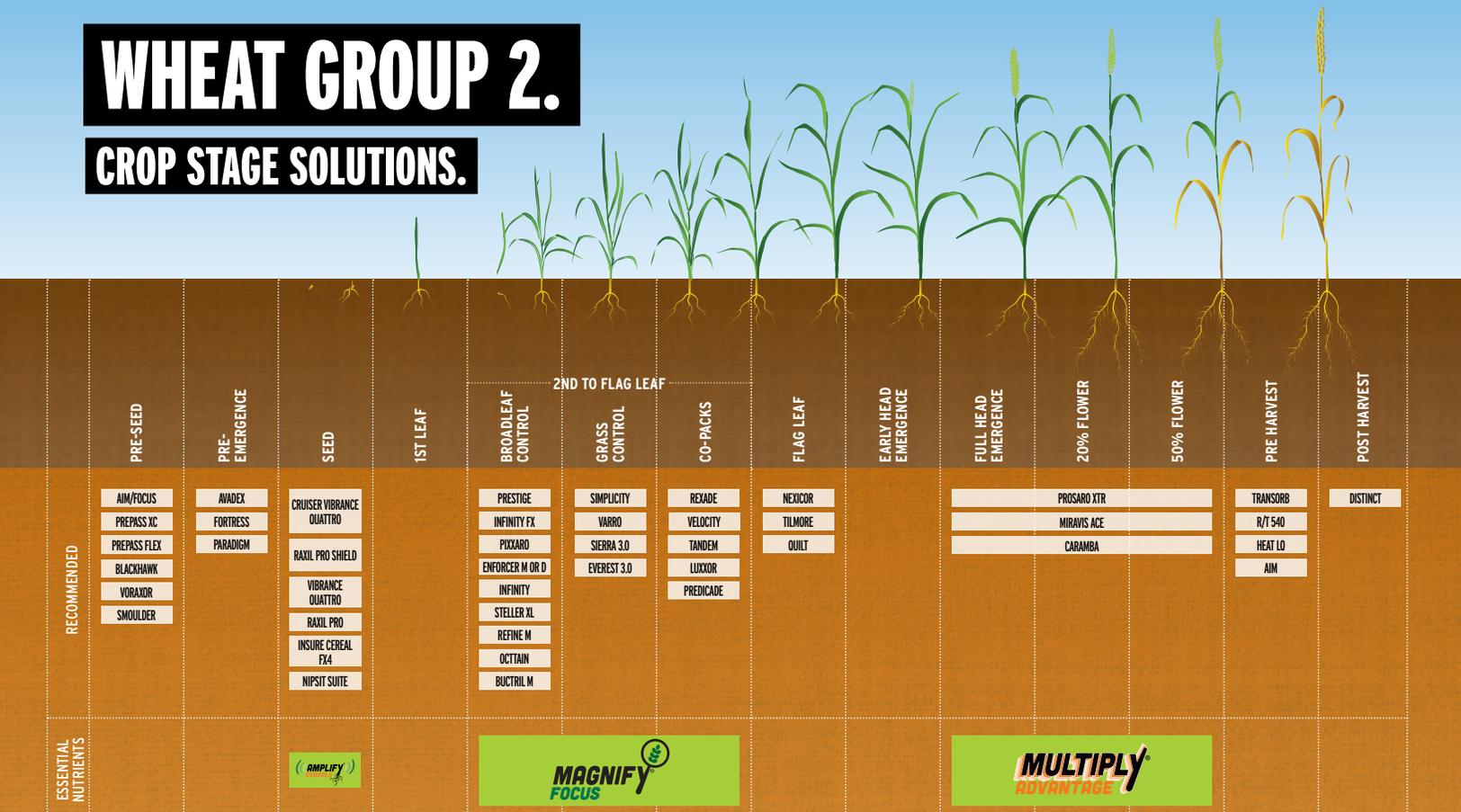
<b>Fungicide Only</b>	Syngenta Vibrance® Quattro	Bayer Raxil® PRO	BASF Insure® Cereal FX4
<b>Container size(s)</b>	10 L, 115 L, 450 L	10 L, 58.5 L , 175.5 L	9.8 L, 120 L, 450 L
<b>Application Rate mL/100 kg seed</b>	325 mL	325 mL	300 mL
Wheat	113/10 L jug	113/10 L jug	120/9.8 L jug
Barley	141/10 L jug	141/10 L jug	150/9.8 L jug
Oats	200/10 L jug	200/10 L jug	212/9.8 L jug
<b>Active Ingredients</b>	Difenoconazole, Metalaxyl-M, Sedaxane, Fludioxonil	Prothioconazole, Tebuconazole, Metalaxyl	Pyraclostrobin, Triticonazole, Fluxapyroxad, Metalaxyl
<b>Fungicide Group</b>	3, 4, 7, 12	3, 4	3, 4, 7, 11
<b>Insect Control (Need to Tank Mix)</b>	Cruiser 5FS	Stress Shield	None registered
<b>WHEAT DISEASES</b>			
<b>Seed Rot &amp; Damping off caused by:</b>			
<i>Fusarium</i> spp.	<b>C</b>	<b>C</b>	<b>C</b>
<i>Cochliobolus sativus</i>	<b>S</b>	<b>C</b>	<b>C</b>
<i>Pythium</i> spp.	<b>C</b>	<b>C</b>	<b>C</b>
<i>Rhizoctonia</i>	<b>C</b>	<b>S</b>	<b>C</b>
<i>Penicillium</i>	<b>C</b>	<b>S</b>	
<i>Aspergillus</i>	<b>C</b>	<b>C</b>	

**C** CONTROL   **S** SUPPRESSION\*   **NOT REGISTERED** \*Suppression means consistent control at a level that is not optimal, but is still of commercial benefit.

	Syngenta Vibrance® Quattro	Bayer Raxil® PRO	BASF Insure® Cereal FX4
<b>WHEAT DISEASES</b> (continued)			
<b>Seedling Blight caused by:</b>			
<i>Fusarium</i> spp.	C	C	C
<i>Pythium</i> spp.	C	C	C
<i>Cochliobolus sativus</i>	S	C	S
<b>Common Root Rot caused by:</b>			
<i>Fusarium</i> spp.	C		C
<i>Pythium</i> spp.	C		C
<i>Cochliobolus sativus</i>	S	S	S
Loose Smut	C	C	C
Common Bunt	C	C	C
Fusarium Crown and Foot Rot	S	S	S
Take All	S		
<b>BARLEY DISEASES</b>			
True Loose Smut	C	C	C
False/covered Smut	C	C	C
Common Root Rot	S	S	S
<i>Pythium</i> spp.	C	C	C
<i>Fusarium</i> spp.	C	C	C
Take All	S		
<i>Rhizoctonia</i>	C	S	C
Leaf Stripe		C	

# WHEAT GROUP 2.

## CROP STAGE SOLUTIONS.



ALWAYS READ AND FOLLOW LABEL DIRECTIONS.  
All trademarks are the property of their respective owners.



**WIREWORMS CAUSES ECONOMIC DAMAGE EARLY IN THE SEASON BY CAUSING PATCHY PLANT STANDS AND AFFECTED PLANTS. USING A INSECTICIDE SEED TREATMENT IS IMPORTANT TO PREVENTING LOSS.**

**RUSS NAIL > CUSTOMER ACCOUNT MANAGER, STRATHMORE**

# CEREAL SEED TREATMENT COMPARISON.

<b>Fungicide plus Insecticide</b>	Syngenta Cruiser® Vibrance® Quattro	Bayer Raxil® PRO Shield	Nufarm Nipsit™ Suite	BASF Teraxxa® F4
<b>Container size(s)</b>	10 L, 115 L, 450 L	10 L + 1.54 L and 175.5 L + 27 L	10 L, 110 L	9.8L, 120L, 450L
<b>Application Rate</b> mL/100 kg seed	325 mL	Raxil PRO 325 mL Stress Shield 50 mL	326 mL	300 mL
<b>APPLICATION RATE</b>				
Wheat	113 bu/10 L jug	113 bu/10 L jug	113 bu/10 L jug	120 bu/9.8L jug
Barley	141 bu/10 L jug	141 bu/10 L jug	141 bu/10 L jug	150 bu/9.8L jug
Oats	200 bu/10 L jug	200 bu/10 L jug		212 bu/9.8L Jug
<b>Active Ingredients</b>	Difenoconazole, Metalaxyl-M, Sedaxane, Fludioxonil, Thiamethoxam	Prothioconazole, Tebuconazole, Metalaxyl, Imidacloprid	Metalaxyl, Metconazole, Clothianidin	Broflanilide, Pyraclostrobin, Triticonazole, Fluxapyroxad, Metalaxyl
<b>Insecticide Group</b>	4	4	4	30
<b>Fungicide Group</b>	3, 4, 7, 12	3, 4	3, 4	3, 4, 7, 11
<b>INSECTICIDAL ACTIVITY</b>				
Wireworm	<b>S</b>	<b>S</b>	<b>S</b>	<b>C</b>
<b>WHEAT DISEASES</b>				
Seed Rot and Damping Off caused by:				
<i>Fusarium</i> spp.	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
<i>Cochliobolus sativus</i>	<b>S</b>	<b>C</b>	<b>C</b>	<b>C</b>
<i>Pythium</i> spp.	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>
<i>Rhizoctonia</i>	<b>C</b>	<b>S</b>		<b>C</b>
<i>Penicillium</i>	<b>C</b>	<b>S</b>		
<i>Aspergillus</i>	<b>C</b>	<b>C</b>		

**C** CONTROL   **S** SUPPRESSION\*   **NOT REGISTERED**   \*Suppression means consistent control at a level that is not optimal, but is still of commercial benefit.

	Syngenta Cruiser Vibrance® Quattro	Bayer Raxil® PRO Shield	Nufarm Nipsit™ Suite	BASF Teraxxa® F4
<b>WHEAT DISEASES (continued)</b>				
<b>Seedling Blight caused by:</b>				
<i>Fusarium</i> spp.	C	C	C	C
<i>Pythium</i> spp.	C	C	C	C
<i>Cochliobolus sativus</i>	S	C	S	S
<b>Common Root Rot caused by:</b>				
<i>Fusarium</i> spp.	C		C	C
<i>Pythium</i> spp.	C		C	C
<i>Cochliobolus sativus</i>	S	S	S	S
Loose Smut	C	C	C	C
Common Bunt	C	C	C	C
Fusarium Crown and Foot Rot	S	S		S
Take All	S			
<b>BARLEY DISEASES</b>				
True Loose Smut	C	C	C	C
False/covered Smut	C	C	C	C
Common Root Rot	S	S	S	S
<i>Pythium</i> spp.	C	C	C	C
<i>Fusarium</i> spp.	C	C	C	C
Take All	S			
<i>Rhizoctonia</i>	C	S		C
Leaf Stripe		C		

Always read and follow label directions. Syngenta Cruiser Vibrance® Quattro is a registered trade-mark of Syngenta® Canada. Bayer Raxil® Pro Shield is a registered trade-mark of BayerCropScience Inc. Nufarm Nipsit™ Suite is a registered trade-mark of Nufarm. Teraxxa F4 is a registered trade-mark of BASF Canada Inc.

# PULSES

Our selection of seed treatments, essential nutrients and inoculants are the tools you need to get your crop off to the best possible start. Your local UFA CAM is here to help you select the right products to support strong emergence and protect from disease and insects.





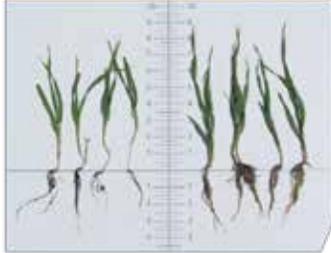
## ACHIEVE YOUR SEED'S GENETIC POTENTIAL.

Give your crop a stronger start to achieve maximum genetic potential with PreCede® Rhizo. Simply add PreCede® Rhizo to your seed protection to drive rooting, respiration, and nutrient uptake.

PreCede® Rhizo is the premium seed nutrient dressing designed and field tested to deliver the essential nutrients in the proper form and ratio to successfully cold start the crop. By applying PreCede® Rhizo in tandem with a seed protectant you will address the natural nutrient imbalances that exist in the seed.

The proven agronomic performance of 57 replicated trials across Western Canada over four years shows the benefits of adding PreCede® Rhizo to your seed treatment plans.

**INCREASED ROOT DEVELOPMENT**

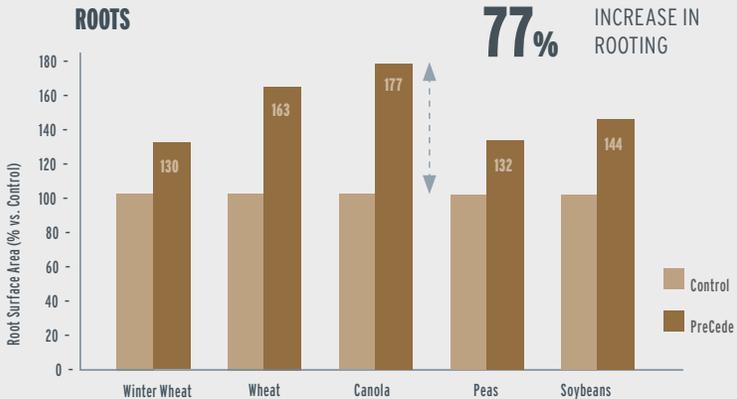


Check (left) vs. PreCede (right) on Wheat

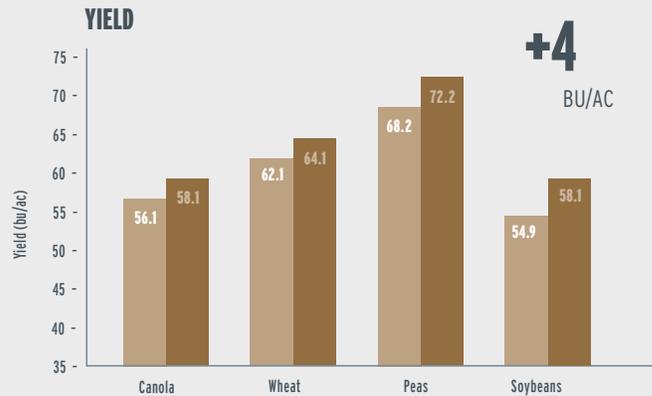
**IMPROVED OVERALL PLANT HEALTH**



Check (left) vs. PreCede Rhizo (right) on Peas



Summary of 27 replicated trials across Western Canada, 2012-2015



Canola; Summary of 14 field trials, 2013-2017  
 Wheat; Summary of 38 trials, 2012-2017  
 Peas; Summary of 2 independent field trials, 2013  
 Soybeans; Summary of 34 field trials, 2011-2017

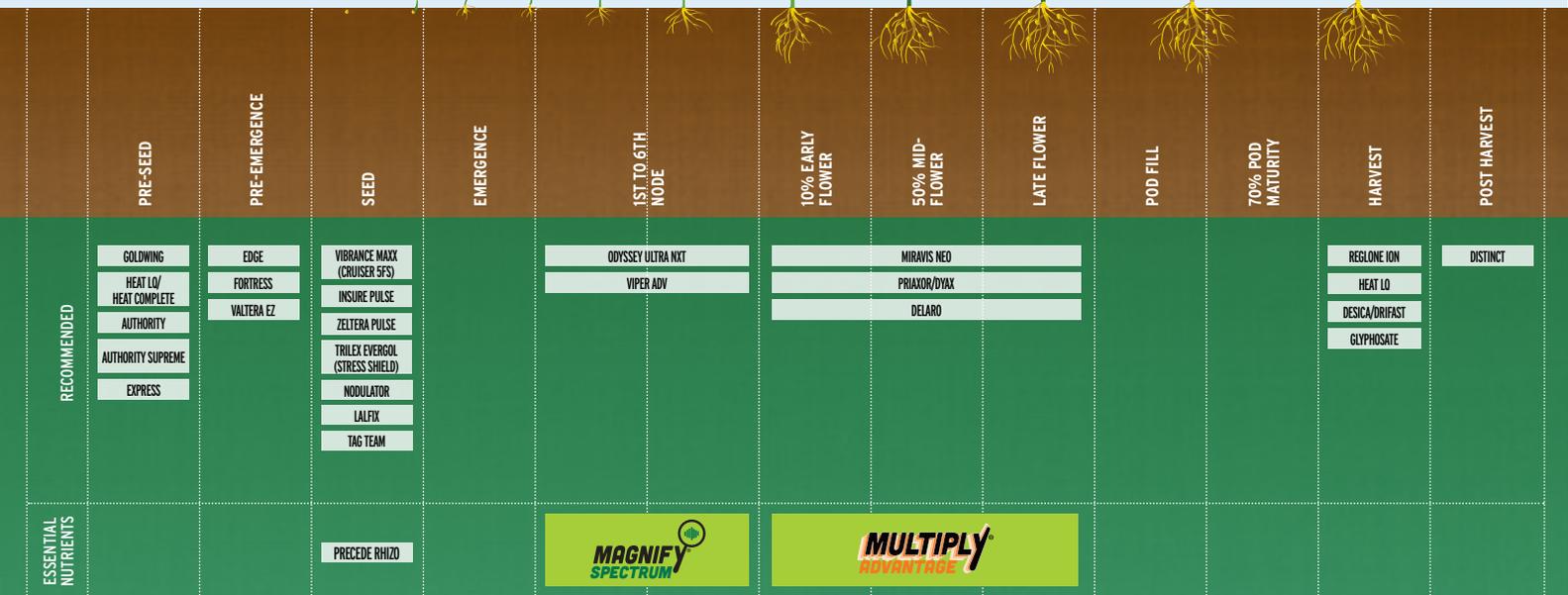
A man with glasses and a dark blue polo shirt stands in a field of green plants with small white flowers. He has his arms crossed and is smiling. The background shows a line of trees under a clear blue sky.

**APHANOMYCES IS A SEED BORNE ROOT ROT THAT CAUSES DAMAGE TO THE ROOTS CAUSING PLANTS TO WILT AND DIE. NEW SEED TREATMENT OPTIONS HELPS WITH EARLY SEASON SUPPRESSION WHEN ROOTS ARE SMALL AND MOST SUSCEPTIBLE.**

**KEITH MUNRO > CUSTOMER ACCOUNT MANAGER, AIRDRIE**

# PEAS.

## CROP STAGE SOLUTIONS.



ALWAYS READ AND FOLLOW LABEL DIRECTIONS.  
All trademarks are the property of their respective owners.

# PULSE SEED TREATMENT COMPARISON.

<b>Fungicide Only</b>	Syngenta Vibrance® Maxx	Syngenta Vibrance® Maxx RFC	Bayer Trilex®	BASF Insure® Pulse	Nufarm Zeltera Pulse	UPL Rancona Trio
<b>Container size(s)</b>	115 L + 3.33 L, 450 L + 4 x 3.33 L	2 x 3.075 L, 56.78 L	Cases: 1.5 L + 0.96 L or 6.49 L + 4.15 L	9.8 L, 120 L	1 case = (2x9.8 L + 2x0.4 L)	2 x 10 L
<b>Application Rate</b> mL/100 kg seed	Apron Maxx 325 mL Vibrance 10 mL	100 mL, 325 mL with water slurry	Trilex® Jug A 25 mL, Trilex® Jug B 16 mL - Mix with Water	300 mL	313 ml per 100kg seed	500 mL
<b>APPLICATION RATE</b>						
Peas, Lentils, Chickpeas	113 bu/10 L jug	113 bu/10 L jug	221 bu/case	120 bu/9.8 L jug	240 bu/case	65 bu/10 L jug
<b>Active Ingredients</b>	Fludioxonil, Metalaxyl-M, Sedaxane	Fludioxonil, Sedaxane, Metalaxyl-M, S-isomer	Penflufen, Trifloxystrobin, Metalaxyl	Fluxapyroxad, Pyraclostrobin, Metalaxyl	Metalaxyl, Inpyrfluxam, Mandestrobin, Ethanboxam	Metalaxyl Ipconazole, Carbathin
<b>Fungicide Group</b>	4, 7, 12	4, 7, 12	4, 7, 11	4, 7, 11	4, 7, 11, 22	3, 4, 7
<b>Insect Control (Tank Mix)</b>	Cruiser 5FS	Cruiser 5FS	Stress Shield	None registered		N/A

**C** CONTROL    **S** SUPPRESSION\*    **NOT REGISTERED**    \*Suppression means consistent control at a level that is not optimal, but is still of commercial benefit.

<b>Fungicide Only</b>	Syngenta Vibrance® Maxx	Syngenta Vibrance® Maxx RFC	Bayer Trilex®	BASF Insure® Pulse	Nufarm Zeltera Pulse	UPL Rancona Trio
<b>PEA DISEASES</b>						
Seed and seedling rot/blight	C	C	C	C	C	C
Pythium seed rot/damping off	C	C	C	C	C	C
Seed-borne ascochyta	C	C	S	C	C	C
Aphanomyces (Peas)					S	S
<b>LENTIL AND CHICKPEA DISEASES</b>						
Seed and seedling rot/blight	C	C	C	C	C	C
Pythium seed rot/damping off	C	C	C	C	C	C
Botrytis seed rot and seedling blight	C	C		S	C	C
Seed-borne ascochyta	C	C	C	C	C	C

C CONTROL

S SUPPRESSION\*

NOT REGISTERED

\*Suppression means consistent control at a level that is not optimal, but is still of commercial benefit.

Always read and follow label directions.

Syngenta Vibrance® Maxx, Vibrance® Maxx RFC, Vibrance® Maxx with Intego™ a registered trade-marks of Syngenta® Canada. Bayer Trilex® is a registered trade-mark of BayerCropScience Inc. Insure® Pulse is a registered trade-mark of BASF Canada Inc.



**TACKLING WEEDS EARLY AND  
USING MULTIPLE CHEMICAL  
GROUPS IS CRITICAL TO MANAGING  
WEEDS IN YOUR PULSE CROP.**

**NICOLE ANDERSON > CUSTOMER ACCOUNT MANAGER, RED DEER**

# LENTILS.

## CROP STAGE SOLUTIONS.

	PRE-SEED	PRE-EMERGENCE	SEED	EMERGENCE	1ST TO 9TH NODE	EARLY FLOWER	MID-FLOWER	LATE FLOWER	POD FILL	HARVEST	POST HARVEST
RECOMMENDED	GOLDWING HEAT LO/ HEAT COMPLETE	VALTERA EZ EDGE FORTRESS	VIBRANCE MAXX INSURE PULSE TRILEX EVERGOL NODULATOR LALFIX TAG TEAM		SOLO ULTRA ODYSSEY ULTRA NXT SOLO ADV ARES	DYAX PRIAXOR	DELARO ELATUS COTEGRA			REGLONE ION HEAT LO DESCICA/DRIFAST GLYPHOSATE	DISTINCT
ESSENTIAL NUTRIENTS			PRECEDE RHIZO		MAGNIFY SPECTRUM		MULTIPLY ADVANTAGE				

ALWAYS READ AND FOLLOW LABEL DIRECTIONS.  
All trademarks are the property of their respective owners.

# PULSE SEED TREATMENT COMPARISON.

<b>Fungicide plus Insecticide</b>	Syngenta Cruiser® Maxx® Vibrance Pulses	Bayer Trilex® EverGol® SHIELD	Syngenta Cruiser® 5FS	Bayer Stress Shield®
<b>Container size(s)</b>	23.4L or 56.78L 115 L + 3.33 L, 2 x 3.075 or 56.78 L	1.5 L + 0.96 L + 6.25 L tri-pack	23.4 L, 56.78 L	27 L
<b>Application Rate mL/100 kg seed</b>	Apron Maxx 325 mL Vibrance 10 mL Cruiser 5S 50 mL	Trilex Jug A 25 mL, Trilex Jug B 16 mL, Stress Shield 104 mL – Mix with Water	50 mL*	104 - 208 mL
<b>APPLICATION RATE</b>				
<b>Peas, Lentils, Chickpeas</b>	113 bu/jug plus target rate of Cruiser 5FS	221 bu/case	To be mixed with fungicide seed treatments	To be mixed with fungicide seed treatments
<b>Active ingredients</b>	Thiamethoxam, Fludioxonil, Metalaxyl M, Sedaxane	Imidacloprid, Penflufen, Trifloxystrobin, Metalaxyl	Thiamethoxam	Imidacloprid
<b>Insecticide Group</b>	4	4	4	4
<b>Fungicide Group</b>	4, 7, 12	4, 7, 11	N/A	N/A

\* 50 mL is the rate to obtain the 30g/100 kg rate of Cruiser 5FS which is the rate for pea leaf weevil.

**C** CONTROL   **S** SUPPRESSION\*\*   **NOT REGISTERED**   \*\*Suppression means consistent control at a level that is not optimal, but is still of commercial benefit.

Fungicide plus Insecticide	Syngenta Cruiser Maxx® Vibrance Pulses	Bayer Trilex® EverGo!® SHIELD	INSECTICIDE ONLY	
			Syngenta Cruiser® 5FS	Bayer Stress Shield®
<b>INSECTS</b>				
Pea Leaf Weevil	S	S	S	S
Wireworms	S	S	S	S
<b>PEA DISEASES</b>				
Seed and seedling rot/blight	C	C		
Pythium seed rot/damping off	C	C		
Seed-borne ascochyta	C	S		
Aphanomyces (Peas)				
<b>LENTIL AND CHICKPEA DISEASES</b>				
Seed and seedling rot/blight	C	C		
Pythium seed rot/damping off	C	C		
Botrytis seed rot and seedling blight	C			
Seed-borne ascochyta	C	C		

**C** CONTROL   **S** SUPPRESSION\*   **NOT REGISTERED** \*Suppression means consistent control at a level that is not optimal, but is still of commercial benefit.

Always read and follow label directions.

Syngenta Cruiser® 5FS a registered trade-marks of Syngenta® Canada. Evergol®, Stress Shield® and Trilex® are registered trade-marks of the Bayer Group. Insure® Pulse is a registered trade-mark of BASF Canada Inc.

# INOCULANTS

Give your crop a stronger start with quality inoculant. Applying the right inoculant to your seed or soil will improve root nodule formation, nitrogen fixation and reduce pests & disease, all leading to better yields.

Your local CAM can help you decide on the right inoculant for your seed treatment, soil condition and preferred application method.



# SEED TREATMENT & INOCULANT COMPATIBILITY.

	BASF Nodulator® DUO Solid Core Granular	BASF Nodulator® XL Liquid			BASF Nodulator® XL Peat		TagTeam® BioniQ® Granular	TagTeam® LCO Granular
		Tank Mix <sup>1</sup> time on Seed	Simultaneous	Sequential	Simultaneous	Sequential		
Syngenta Vibrance® Maxx	Nodulator® DUO Solid Core Granular is compatible with all pesticide treated seed in furrow.	4 hours	2 hours	2 hours	24 hours	24 hours	TagTeam® BioniQ® Granular is compatible with all pesticide treated seed in furrow	TagTeam® LCO Granular is compatible with all pesticide treated seed in furrow.
Bayer Trilex® EverGol®		Not recommended	2 hours	1 hour for pea, 2 hours for lentil	2 hours for pea, 4 hours for lentil	4 hours		
Bayer Trilex® EverGol® SHIELD		Not recommended	Not recommended	Not recommended	2 hours	4 hours		
BASF Insure® Pulse		Not recommended	Not recommended	Not recommended	Not recommended	2 hours		
Syngenta Vibrance® Maxx with Intego®		4 hours	2 hours	2 hours	24 hours	24 hours		
Syngenta Vibrance® Maxx RFC		Not available	6 hours	4 hours	24 hours	24 hours		
Syngenta Cruiser Maxx® Vibrance® Pulses		Not recommended	Marginal	Not recommended	6 hours	6 hours		

## TANK MIX

The inoculant is mixed with the seed treatment in a single tank and applied as one solution or suspension using the same applicator. The inoculant and seed treatment can be tank mixed for a period of time before application to the seed.

<sup>1</sup> These on-seed shelf life recommendations are based on a maximum of four - hour tank-mix period. Always read and follow label directions. All trademarks are the property of their respective owners.

## SIMULTANEOUS (WET SEQUENTIAL)

The inoculant and seed treatment are applied at the same time, from separate tanks. They must be applied by separate applicators to be defined as a simultaneous or wet sequential application.

TagTeam® Liquid			TagTeam® Peat			LalFix® Spherical Pea & Lentil*	LalFix® Peat Pea & Lentil*	LalFix® Liquid Pea & Lentil*
Tank Mix time on Seed	Simultaneous	Sequential	Tank Mix time on Seed	Simultaneous	Sequential			
Not recommended	48 hours for pea, 24 hours for lentil	48 hours for pea, 24 hours for lentil	48 hours for pea, not recommended for lentil	48 hours	48 hours	Compatible	48 Hours	Not yet tested
Not recommended	Not recommended	Not recommended	48 hours	48 hours	48 hours	Compatible	48 Hours	48 Hours
Not recommended	Not recommended	Not recommended	Not recommended	24 hours for pea, 48 hours for lentil	24 hours for pea, 48 hours for lentil	Compatible	48 Hours	48 Hours
Not recommended	Not recommended	Not recommended	Not recommended	Not recommended	Not recommended	Compatible	48 Hours	Not recommended
Not recommended	Not recommended	Not recommended	48 hours for pea, not recommended for lentil	48 hours	48 hours	Compatible	48 Hours	Not yet tested
Not recommended	48 hours	48 hours	48 hours	48 hours	48 hours	Compatible	48 Hours	Not yet tested
Not recommended	48 hours	48 hours				Compatible	48 Hours	24 Hours

### DRY SEQUENTIAL

One product is applied first and allowed to dry, before the second product is applied. This can be a seed treatment followed by an inoculant or inoculant followed by a seed treatment. Drying time will vary based on formulation, relative air humidity and other factors. A minimum 30 minutes is typical, but it may take up to a day.

\*Seeds were treated with chemical products at rates according to the manufacturer's recommendation as a dry sequential application and were stored at 4°C. Always read and follow label directions. All trademarks are the property of their respective owners.

A woman with short brown hair and glasses, wearing a blue polo shirt with a logo, stands smiling in a lush green field. In the background, there is a row of golden corn plants under a clear blue sky. The text is overlaid on the left side of the image.

**CHOOSING THE RIGHT INOCULANT  
FOR YOUR FARMING PRACTISES  
HELPS TO MAXIMIZE YOUR YIELD  
POTENTIAL AND NITROGEN FIXATION  
WITH STRONG NODULE FORMATION.**

**BRETT WOOD > CUSTOMER ACCOUNT MANAGER, CLARESHOLM**



We create chemistry

BASF continues to provide inoculants and biologicals backed by research, development and innovative technologies that benefit growers by improving nodulation, nitrogen-fixation, root vigor, nutrient uptake and yield potential.

### NODULATOR XL LIQUID

Application Rates – Light formulation:

- One case contains 3 x 7.5L bladders
- One case will treat 300 bushels of seed.

#### On-Seed Liquid Application

Flow Valve Setting	Inoculant Flow Rate (liquid)		Seed/Auger Flow Rate	
	mL/min	fl. oz./min	kg/min	lbs (bu)/min
1	360	12	131	289 (5)
2	860	29	313	690 (11)
3	1340	45	487	1074 (18)
4	1660	56	604	1332 (22)
5	1780	60	647	1426 (24)
6	2030	68	738	1627 (30)

Data provided by BASF Canada Inc.

#### In-Furrow Liquid Application

Row Spacing		Application Rate		Area Treated per Case	
cm	in	L/ha	L/ac	ha	ac
15.2	6	6.5	2.6	1.2	2.9
17.8	7	5.5	2.2	1.4	3.3
20.3	8	4.9	2	1.5	3.8
22.9	9	4.3	1.7	1.7	4.3
25.4	10	3.9	1.6	1.9	4.8
27.9	11	3.5	1.4	2.1	5.2
30.5	12	3.2	1.3	2.3	5.7



We create chemistry

## NODULATOR XL PEAT

Application Rates - Sterile peat formulation:

- One case contains 3 x 1.2 kg packages
- One case will treat 110 bushels of seed
- The standard rate of application is 1.2 kg per 600 kg of seed

### On-Seed Peat Application

Application Method	Recommendations
Slurry	Add complete pack contents to approximately 2 litres of clean, dechlorinated water and stir well in a clean container to form a lump-free slurry. Not allowing slurry to settle out, pour onto the seed and mix thoroughly to ensure the seeds are evenly coated. Allow seed to dry before further handling.
Damp	Apply just enough water to slightly dampen seed (2 mL/kg). Mix the damp seed thoroughly with the inoculant so that they are evenly coated.
Dry	Pour the correct amount of inoculant onto thin layers of seed in the drill hopper and mix thoroughly to evenly coat seed. For bulk seed handling systems, the inoculant can be metered directly onto augured seed.

Data provided by BASF Canada Inc.



We create chemistry

## NODULATOR DUO SCG

Application Rates - Solid Core Granule Formulation:

- One bag will treat 10.6 acres (7" rows) to 18.5 acres (12" rows)
- One Q-Pak will treat 170 acres (7" rows) to 18.5 acres (12" rows)
- Apply granular inoculant at a rate of 28.5 g/1,000 linear row feet

### In-Furrow Granular Application

Row Spacing		Application Rate		Area Treated per Bag	
cm	in	kg/ha	lb/ac	ha	ac
15.2	6	6.2	5.6	3.7	8.9
17.8	7	5.3	4.7	4.3	10.6
20.3	8	4.6	4.1	4.9	12.2
22.9	9	4	3.6	5.7	13.9
25.4	10	3.7	3.3	6.1	15.2
27.9	11	3.4	3	6.7	16.7
30.5	12	3	2.7	7.6	18.5

Data provided by BASF Canada Inc.



Lallemand brings a new kind of inoculant to the table for peas and lentils. LAFIX® Duo for Peas & Lentils is a high quality dual-action, in-furrow spherical inoculant with  $1 \times 10^8$  viable *Rhizobium leguminosarum* biovar *viciae* cells per gram.

LALFIX® DUO FS for Pea & Lentils brings a number of enhancements over traditional granular inoculants:

- Technologically advanced spherical granule
- Provides accurate inoculant placement while increasing granule durability and Rhizobia survival
- Low dust partition allows for even application
- Selected *Rhizobium leguminosarum* strains enables the plants to start fixing nitrogen earlier and more efficiently
- Better crop establishment and enhanced yields

Row Width		Recommended Rate (granular)			Area treated - acres (ha)	
in	cm	lbs/ac	kg/ac	kg/ha	Bag	Tote
6	15	4.4	2	5	6.1 (2.5)	196 (79.3)
7	18	3.8	1.7	4.3	7.1 (2.9)	227 (91.8)
8	20	3.3	1.5	3.7	8.2 (3.3)	262 (106)
9	23	3	1.4	3.3	9.0 (3.6)	288 (116.5)
10	25	2.7	1.2	3	10.0 (4.0)	320 (129.5)
12	30	2.2	1	2.5	12.3 (5.0)	393 (159)

NexusBioAg offers leading crop nutrition solutions for your unique operation. Through best-in-class capability, a strong team-oriented approach, a commitment to agricultural integrity, NexusBioAg is helping customers innovate and grow an increasingly dynamic agricultural environment

## TAGTEAM® LCO Granular Application Rates

Pea/Lentil Row Spacing (in)	18 kg (39.68 lb) bag		454 kg (1,001 lb)	
	ac/bag	lb/ac	ac/bag	lb/ac
7	8.4	4.7	213.0	4.7
8	9.7	4.1	244.1	4.1
9	11.0	3.6	278.1	3.6
10	12.0	3.3	303.3	3.3
12	14.7	2.7	370.7	2.7
15	18.0	2.2	455.0	2.2

## TAGTEAM® BIONIQ® Granular Application Rates

Pea/Lentil Row Spacing (in)	18 kg (39.68 lb) bag		454 kg (1,001 lb)	
	ac/bag	lb/ac	ac/bag	lb/ac
6	7.2	5.5	182.0	5.5
7	8.4	4.7	213.0	4.7
8	9.7	4.1	244.1	4.1
9	11.0	3.6	278.0	3.6
10	12.0	3.3	303.3	3.3
12	14.7	2.7	370.7	2.7
15	18.0	2.2	455.0	2.2

## TAGTEAM® LIQUID Application Rates

		Amount of seed treated/bag		
Crop	Size	bu	lb	Units
Pea/Lentil	3.0 L + 57 g WP	40	2,400	-

## TAGTEAM® PEAT Application Rates

Crop	Bag Size	Amount of treated/bag			Water rate*
		bu	lb	Units	
Chickpea	2.20 kg	50	3,000	-	4.0
Lentil	2.20 kg	30	1,800	-	2.5
Pea	2.20 kg	50	3,000	-	4.0
Soybean	2.45 kg	33	2,000	40	3.0

\*Approximate water volume for peat slurry application.



NEW

Canola · Corn · Wheat

## Nitrogen Now. All Season Long.

Envita delivers a new mode of action for nitrogen fixation in non-legume crops. Envita is a new naturally occurring bacteria – *Gluconacetobacter diazotrophicus* (Gd), that forms a symbiotic relationship with the host plant and provides nitrogen throughout the plant, both above and below ground, throughout the growing season.

Applied in-furrow or as foliar spray, Envita bacteria naturally metabolizes nitrogen directly from the air, allowing growers to maintain their nitrogen fertility program and increase yields.

## A New Mode of Action for Nitrogen Fixation

- Envita brings growers diversity and flexibility in their nitrogen management program by providing a new alternative to enhance nitrogen fixation.
- Unique to Envita is its ability to move within plant cells.
- It is the only bacteria proven to fix nitrogen within the plant cell – exactly where nitrogen is needed for plant growth.

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Purchase your seed, crop inputs, farm fuel, animal nutrition supplements, in-stock bins, fans and augers with FCC today, and don't pay until harvest.

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\*The Interest Free Credit Program is valid for purchases from March 1 - May 31, 2022 and is Interest Free until October 31, 2022. Full payment is due to FCC March 15, 2023. Program is valid with a minimum purchase of 2,000L of farm fuel and/or \$2,000 of approved seed, crop inputs including crop protection products, fertilizer, seed treating services, animal nutrition supplements and/or bins, fans and augers that must be invoices and picked-up/delivered by May 31, 2022 to qualify. No special orders. Customer must have or apply for FCC EasyGROW or FCC EasyFUEL credit to participate and must have adequate credit limit and be in good standing. Must have a valid SFTX, BCFIN 458 or AFFB permit at time of purchase for farm fuel deliveries. Offer excludes heating oil and Cardlock purchases.

\*\*Pre-approval is in addition to UFA Credit and there are no changes in UFA Credit Limits as a result of accessing FCC credit. To start: Call FCC at 1 (888) 522-2555 and provide your UFA member number. UFA will provide you a copy of the terms and conditions to sign and return. \*Preapproval is contingent on FCC final approval and upon receipt of the required documentation.



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