NEW FOR 2018 SEASON

Every season brings new ideas, decisions and opportunities. And we’ve expanded the 2018 Nufarm Solution Guide with cereal, canola, pulse and soybean solutions to help get your crops off to a strong start, stay clean throughout the season, and help you deliver a productive harvest for your operation.

FOR CEREALS

START CLEAN. STAY CLEAN.
Kick-off the growing season with a pre-seed burndown in cereals that not only produces the results you want, but also provides peace of mind in managing weed resistance. BlackHawk® has two active ingredients and two modes of action that gets the job done, especially when tank mixed with glyphosate controlling both Group 2- and glyphosate-resistant weeds and volunteers.

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FOR CANOLA

PRE-SEED CRACKDOWN
Regardless the variety of canola you are seeding on your farm, it’s important to manage weeds not only in-crop, but also pre-seed. CONQUER® tank mixed with glyphosate prior to seeding canola will have triple action control on weeds like kochia, cleavers, volunteer canola and narrow-leaved hawk’s beard. It’s a simple solution to start your growing season.

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PLUS...
CHECK OUT THE NUFARM SOLUTION GUIDE on page 44
FOR PULSES

A STRONG COMBINATION
INTEGO™ Solo is a great addition with other pulse seed treatments, and provides added protection from aphanomyces and pythium strains.

Add Valtera™ to your weed management plans, and you will have a great start to cleaner fields in your pulse crops.

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FOR SOYBEANS

SOYBEANS FOR SUCCESS
Give your soybeans a clean start and strong finish by reducing weed competition while managing the resistance risk with your herbicide choice. Use the chart on page 43 to guide pre-seed and in-crop weed control options for Roundup Ready 2 Xtend® soybeans.

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PLUS...
CHECK OUT
THE NUFARM
SOLUTION GUIDE
on page 44
A better burndown comes from understanding how resistance issues develop, using crop rotation as a tool and taking a multiple mode of action approach to your herbicide program.

Applying a burndown eliminates weed competition early and reduces the size of weeds for your in-crop application to deal with. And at harvest, you’ll have cleaner fields, higher yields and lower dockage. It’s a smart stewardship plan that protects the valuable tools and traits we all depend on for profitable crop production, today and in the future.

Nufarm and Monsanto provide unbeatable tank-mix options. These perfectly matched combinations will keep you one step ahead of tough weed pressure, and give your canola, cereal, pulse and soybean crops the best possible start.

Make the most of your Roundup WeatherMAX® and Roundup Transorb® HC herbicides with Nufarm. And earn Real Farm Rewards™.
Purchase any amount of Valtera herbicide for the opportunity to earn a $2.00/acre reward.

- Extended early season control of chickweed, kochia, pigweed, lamb’s-quarters, seedling dandelion, nightshade and suppression of volunteer canola
- Control of glyphosate-resistant weeds prior to Roundup Ready® and conventional soybeans

Purchase any amount of BlackHawk herbicide for the opportunity to earn a $1.00/acre reward.

- Volunteer canola, narrow-leaved hawk’s-beard, kochia and more
- Control of Group 2- and glyphosate-resistant weeds and volunteers

Purchase any amount of CONQUER herbicide for the opportunity to earn a $1.00/acre reward.

- Volunteer canola, kochia, cleavers, wild buckwheat, wild mustard and more
- Control of Group 2- and glyphosate-resistant weeds and volunteers

Purchase any amount of GoldWing herbicide for the opportunity to earn a $1.00/acre reward.

- Control of Group 2- and glyphosate-resistant weeds and volunteers
- Three modes of action when tank mixed with glyphosate and flexibility to move from pulses to cereals with one product

**CHOOSE THIS SOLUTION FOR**

- Volunteer canola, narrow-leaved hawk’s-beard, kochia and more
- Control of Group 2- and glyphosate-resistant weeds and volunteers

**MORE**

- Control of Group 2- and glyphosate-resistant weeds and volunteers
- Three modes of action when tank mixed with glyphosate and flexibility to move from pulses to cereals with one product

**SEE INSIDE BACK COVER FOR REAL FARM REWARDS DETAILS**

KNOW YOUR RISK

If you had 2 target weeds/sq. ft. on a quarter section, and only used a Group 2 herbicide for weed control… you can expect up to 140 Group 2-resistant weeds at the end of the season.

Adapted from Beckie 2011

UP TO 140 RESISTANT WEEDS by end of year

## TARGET WEEDS per sq. ft.

2

REAL FARM REWARDS
A MONSANTO LOYALTY PROGRAM

2018 Nufarm Western Canada Crop Solutions

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2018 Nufarm Western Canada Crop Solutions
The Only Pre-Formulated Burndown Solution with Two Actives and Two Modes of Action

**BlackHawk®**

**Weed Control Challenge**
Glyphosate alone used to provide an effective burndown option in cereal crops. But the widespread adoption of glyphosate-tolerant canola, and the alarming spread of glyphosate- and Group 2-resistant kochia, has dramatically reduced the effectiveness of glyphosate-only control programs.

**NuFarm Solution**
BlackHawk® contains a Group 14 herbicide (pyraflufen-ethyl) in a pre-formulation with 2,4-D ester. It delivers faster, more complete weed control in a cereal pre-seed burndown than glyphosate and Group 2 herbicides. With two active ingredients and two modes of action, BlackHawk is an innovative burndown solution that doubles as an effective tool for resistance management.
**REGISTERED CROPS PRIOR TO SEEDING**
- Barley
- Canary seed
- Field corn
- Oats (apply 7 days prior to seeding)
- Rye (spring, fall)
- Soybeans (apply a maximum of 3 days after planting)
- Summerfallow
- Triticale
- Wheat (spring, winter, durum)

**WEEDS CONTROLLED**
- Cleavers (all confirmed herbicide-resistant biotypes)
- Cocklebur
- Cow cockle (suppression)
- Dandelion (spring seedling and season long suppression)
- Flixweed
- Kochia (including Group 2 and glyphosate-resistant biotypes)
- Lamb’s-quarters (including Group 2- and 5-resistant biotypes)
- Mustards (except dog and tansy)
- Narrow-leaved hawk’s-beard (including Group 2-resistant biotypes)
- Night-flowering catchfly
- Pigweed (redroot and Russian)
- Prickly lettuce
- Russian thistle
- Shepherd’s-purse
- Stinkweed
- Sweet clover
- Volunteer canola (including all herbicide-resistant biotypes)
- Wild buckwheat (suppression)
- Wild radish

**BLACKHAWK + GLYPHOSATE TANK MIX**
*for enhanced control of these additional weeds*
- Canada thistle
- Chickweed
- Dandelion
- Sow thistle
- Volunteer canola (all biotypes)
- Wild buckwheat

**BENEFITS**
- **PROVEN RESISTANCE MANAGEMENT** with two non-Group 2 modes of action to target broadleaved weed species
- **FASTER CONTROL** through systemic and contact activity
- **BETTER PERFORMANCE** compared to glyphosate alone for pre-seed burndown

**PLUS**
- Makes in-crop weed control easier and more effective by having only new, small weeds present at time of application
- Provides broad-spectrum weed control, including excellent control of narrow-leaved hawk’s-beard in the fall and at the 1-2 leaf in spring
- Pre-seed burndown applications are known to increase crop yield by up to 25%*
- Effective fall weed control
- No surfactant needed when applied with glyphosate

*O’Donovan et al. 1985, Sapsford et al. 2008

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**BLACKHAWK**

**ACTIVE INGREDIENTS**
- > Group 14 (pyraflufen-ethyl)
- > Group 4 (2,4-D ester)

**RAINFAST**
- > 1 hour

**TREATMENT AREA**
- > Once case treats 60 acres at 300 mL/ac.
- > One drum treats 320 acres at 300 mL/ac.

**TANK-MIX ORDER**
- > BlackHawk
- > glyphosate

**NOTES**
- > Cereals can be seeded immediately following application (except oats)
- > Can be applied up to 3 days after seeding soybeans (ensure soybeans are seeded minimum 1 inch depth)
- > Coverage of emerged weeds is key for contact activity

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**REAL FARM REWARDS™**
A MONSANTO LOYALTY PROGRAM
CONQUER®

THE FIRST AND ONLY PRE-SEED BURNDOWN SOLUTION WITH TWO ACTIVE INGREDIENTS AND TWO MODES OF ACTION FOR USE PRIOR TO SENSITIVE CROPS LIKE CANOLA

WEED CONTROL CHALLENGE
Glyphosate has been used for years for effective burndown. But with the widespread adoption of glyphosate-tolerant crops like canola and the spread of glyphosate- and Group 2-resistant weeds like kochia and cleavers, growers are now faced with more weed control challenges than ever. Products with a single active ingredient have too narrow a spectrum to control the growing range of weed populations.

NUFARM SOLUTION
CONQUER® herbicide delivers faster, more complete weed control in a canola pre-seed burndown than glyphosate alone. CONQUER has two active ingredients with two separate modes of action, and when mixed with glyphosate, weeds face a triple action threat especially kochia, cleavers, narrow-leaved hawk’s-beard, volunteer canola, plus Group 9- (glyphosate) and Group 2-tolerant volunteers.
REGISTERED CROP
• Canola

WEEDS CONTROLLED

CONQUER ALONE
• Annual sowthistle
• Kochia (including Group 2, 5 and 9 resistant biotypes)
• Lamb’s-quarters (including Group 2, 5 and 9 resistant biotypes)
• Redroot pigweed
• Round-leaved mallow (suppression)
• Russian thistle
• Smartweed
• Volunteer canola (all biotypes)
• Wild buckwheat

CONQUER + GLYPHOSATE
• Chickweed
• Cleavers
• Dandelion (spring germinated)
• Horsetail
• Morning glory
• Narrow-leaved hawk’s beard (spring germinated)
• Shepherd’s-purse
• Smartweed
• Tansy mustard

BENEFITS
• VOLUNTEER CANOLA CONTROL
• FAST BURNDOWN compared to bromoxynil alone
• EXCELLENT WEED CONTROL including all Group 2 and Group 9 herbicide-tolerant biotypes of canola, kochia and cleavers
• NON RESIDUAL ACTIVITY eliminates any risk to the emerging canola crop

PLUS
• The best burndown product available for use before seeding canola
• Protects long-term viability of agronomic tools such as glyphosate and glyphosate-tolerant traits
• No surfactant required when used with glyphosate

PERFORMANCE TIPS
CONQUER is a contact herbicide and must be applied directly on growing weeds for effective results.

1. Droplet size – use a combination of nozzle type and sprayer speed to achieve a fine to medium droplet size. Adjust sprayer speed to optimize weed coverage.

2. Water volume – use 10 gal./ac. water volume for adequate coverage on weeds.
WEED CONTROL CHALLENGE

There is a growing risk for the development of new glyphosate-resistant weeds in Western Canada. Volunteer canola and kochia populations may not be controlled by glyphosate alone. Growers need effective control options that will protect the viability of glyphosate and glyphosate-tolerant crops, with modes of action that do not include Group 2 chemistry.

NUFARM SOLUTION

GoldWing® herbicide contains a Group 14 active (pyraflufen-ethyl) in a pre-formulation with a Group 4 (MCPA ester) to control the toughest herbicide-resistant weeds in Western Canada. This product was developed to be added to glyphosate in a pre-seed burndown to control early season weeds in field peas, cereals, corn and canary seed.
REGISTERED CROPS
• Field pea
• Barley
• Canary seed
• Corn (field, sweet, pop)
• Oats
• Rye
• Triticale
• Wheat (spring, durum, winter)

Label expansion for certain pulse and industrial oilseed crops is planned.

WEEDS CONTROLLED
GOLDWING ALONE
• Annual sow thistle (suppression)
• Cleavers
• Dandelion (suppression)
• Kochia (including Group 2- and glyphosate-resistant biotypes)
• Lamb’s-quarters (including Group 2- and 5-resistant biotypes)
• Mustards (except dog and tansy)
• Narrow-leaved hawk’s-beard
• Night-flowering catchfly
• Redroot pigweed (including Group 2- and 5-resistant biotypes)
• Stinkweed
• Volunteer canola (all herbicide-tolerant biotypes)

TANK MIX WITH GLYPHOSATE FOR ENHANCED CONTROL OF THESE EMERGED WEEDS
• Canada thistle
• Cow cockle
• Flixweed
• Round-leaved mallow
• Shepherd’s-purse
• Smartweed
• Wild buckwheat

BENEFITS
• FASTER BURNDOWN ACTIVITY compared to Group 2 herbicides
• RESISTANCE MANAGEMENT tool with a Group 14 active ingredient that is newer to Canada, and works well in combination with Group 4 chemistry on tough-to-kill weeds
• UNSURPASSED CROP SAFETY for registered crops seeded after application

PLUS
• Increased control of cleavers and protection against the development of glyphosate-resistant biotypes
• Faster, more effective control of all types of herbicide-tolerant volunteer canola
• Controls Group 2-resistant weeds (kochia, cleavers, redroot pigweed) and Group 9-resistant broadleaf weeds (kochia, volunteer canola)

PERFORMANCE TIPS
• For best results, tank mix with 0.5-1.0 REL glyphosate
• Will not provide residual weed control
• GoldWing contains an active ingredient with contact type activity, so good spray coverage of emerged weeds is essential for exceptional control

GOLDWING
ACTIVE INGREDIENTS
• Group 14 (pyraflufen-ethyl)
• Group 4 (MCPA ester)

RAINFAST
• > 1 hour

TREATMENT AREA
• One case treats 160 acres (at 133 mL/ac. rate)
• One drum treats 640 acres (at 133 mL/ac. rate)

TANK-MIX ORDER
• GoldWing
• glyphosate

NOTES
• > Apply prior to seeding
• > No surfactant required when tank mixed with glyphosate
• > Use 10 gal./ac. water volume to get good coverage on emerged weeds

REAL FARM REWARDS™
A MONSANTO LOYALTY PROGRAM
Valtera™ is the one product that can be the answer to the problems of fall, spring and in-season weed control with its extended activity. A fall application of Valtera, in a tank mix with glyphosate, will clean up weeds that appear after harvest and provide residual control that keeps working through the winter and will re-ignite with spring moisture. It’s a simple way to spread your workload, and get a jump on spring weed control. Alternatively, spray in the spring with glyphosate to kill early season weeds while retaining the benefits of up to eight weeks of extended control.

**EASY TO USE**

Applied in a spray application, Valtera is easier to apply than dry, broadcast products that depend on mechanical broadcasting or harrow bars and require the added step of incorporation. Valtera can be applied in the fall until freeze up, and prior to crop emergence in the spring. Most growers own a sprayer to apply a product like Valtera. But granular products are bulky and often need rented equipment for application. That adds time, money and fuel to your weed control costs… something Valtera doesn’t require.

Valtera works by forming an active layer near the soil surface that weeds must pass through. There’s no need for a second pass across the field to incorporate a fall application of Valtera, so it’s a great fit for minimum disturbance seeding systems.

**UNMATCHED CONTROL**

Valtera is tough to beat on weed control. Granular-based products won’t provide the same level of control, especially for spring flushes of kochia, mustards, volunteer canola and dandelion.

Valtera cleans up fields in the fall and keeps working to provide suppression of spring flushes of mustard and volunteer canola. That’s something the competition can’t touch. Plus, Valtera controls spring germinating dandelion, and close to 100% control of the first six to eight weeks of kochia flushes in the spring.

Volunteer canola is one of the top weeds that farmers are fighting, and Valtera suppresses all biotypes of volunteer canola, unlike other dry, incorporated pre-emergent products.

**RECROPPING FREEDOM**

Valtera beats the other fall-applied products with a lot of recropping flexibility on the label. Valtera is approved for use in peas, lentils (fall application), soybeans, chickpeas, spring wheat and corn.

**EASY TO APPLY**

Storage and application of Valtera is also a welcome advantage to growers. One pallet of Valtera treats close to 4,000 acres while it would take a semi-truck full of granular product to cover the same area. And Valtera’s easy to use formulation can be applied through a sprayer so you don’t have to worry about a Valma spreader or harrows for incorporation.

**EASY TO SAVE**

Compared to the competition, Valtera delivers great cost savings – money you can use somewhere else. When you consider the price per acre, plus any application or incorporation required and the cost of a burndown application, Valtera is $15.25/ac. – that’s up to $11.75-$16.75/ac. less. That kind of savings could cover an application of a burndown next spring, in-crop grass control, in-crop metribuzin application or more importantly add it to your bottom line.

**REAL FARM Rewards**

Valtera is part of the new Real Farm Rewards™ program, a partnership with Nufarm and Monsanto. You can save $2/acre on Valtera when you register and qualify for Real Farm Rewards at Nufarm.ca
Valtera is approximately $15.25/ac. which is $11.75-$16.75/ac. less than granular based products.

<table>
<thead>
<tr>
<th></th>
<th>SRP* ($/ac.)</th>
<th>APPLICATION &amp; INCORPORATION ($/ac.)</th>
<th>BURNDOWN APPLICATION ($/ac.)</th>
<th>TOTAL COST ($/ac.)</th>
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</thead>
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<td>Edge™ (at 8.9 kg/ac.)</td>
<td>$26</td>
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<td>Rival® (at 4.5 kg/ac.)</td>
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Valtera™ $13.25  
($15.25 – $2**)  
N/A $4  
$17.25

*Based on published 2018 prices and standard label rates. Pricing and standard rates may vary.
Consult with your local retailer for more information.
** $2/ac. Real Farm Rewards. Visit realfarmrewards.ca for details.
WEED CONTROL CHALLENGE
Early season weeds put serious pressure on young pulse and soybean plants, competing with the vulnerable crop for nutrients, moisture and sunlight. And when weeds include tough-to-control pigweed, volunteer canola, lamb’s-quarters, dandelion and chickweed, both pulses and soybeans have to fight that much harder to get off to a strong start.

NUFARM SOLUTION
Valtera™ herbicide knocks out troublesome broadleaf weeds with extended (up to 8 weeks) control in pulses, and both Roundup Ready and conventional soybeans. Using Valtera (pre-plant or pre-emergent) with a glyphosate burndown provides residual control and boosts pulse and soybean yields. It also provides flexibility to seed wheat if your cropping plans change.
**REGISTERED CROPS**

- Chickpeas
- Field peas
- Lentils (fall application prior to large green and small red lentils)
- Soybeans
- Spring wheat (not including durum) – apply 7 days prior to seeding

**WEEDS CONTROLLED**

- Chickweed
- Dandelion (seedling)
- Green foxtail (suppression)
- Kochia
- Lamb’s-quarters
- Pigweeds
- Volunteer canola – all biotypes (suppression)

**BENEFITS**

- **EARLY SEASON CONTROL** eliminates broadleaf weed pressure early on in lentils, field peas, chickpeas, spring wheat and soybeans
- **EXTENDED CONTROL** with powerful residual activity that provides longer lasting control of tough weeds
- **RESISTANCE MANAGEMENT TOOL** tool that also controls glyphosate-resistant weeds

**PLUS**

- Apply in fall or spring (check label for specific crop registrations)
- No hassle application that doesn’t include the handling and incorporation of bulky granulars
- Broad-spectrum residual weed control that lasts up to 8 weeks
- Extended early season control for extra in-crop herbicide flexibility and to improve the efficacy of in-crop herbicide applications by having to target fewer, smaller weeds
- Yield potential is increased through early elimination of weed competition
- More re-cropping flexibility the following year
- Tank mixable with most burndown and pre-emergent herbicides (i.e. glyphosate, GoldWing and BlackHawk)

**PERFORMANCE TIPS**

1. **Emerged weeds** – use with glyphosate
2. **Flushing weeds** – residual activity for newly emerging weeds
3. **Emerged crop** – Valtera alone can be used up to 3 days post seeding but prior to emergence of registered crops other than wheat
4. Refer to label or crop guide for rates and use patterns
5. **DO NOT** incorporate after application or anytime prior to seeding
6. Pre-seeding applications require the use of minimum disturbance seeding systems
7. Non-ionic surfactant required if glyphosate is not being tank mixed

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**REAL FARM REWARDS™**

A MONSANTO LOYALTY PROGRAM

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Nufarm Agriculture Inc. is a distributor of Valent products in Canada.
WEED CONTROL CHALLENGE
Remember when glyphosate or other non-residual herbicides were all it took to control your wild oats and most broadleaf weeds? Unfortunately, herbicide-resistant weeds mean that Groups 1, 2, 4, 5 and 9 can’t handle the problems alone anymore. Maximizing soybean and wheat yields depend on residual control of tough grass and broadleaf weeds.

NUFARM SOLUTION
Fierce® herbicide delivers the broadest spectrum and longest residual weed control available for IP, conventional and herbicide-tolerant soybeans, and wheat crops. Pyroxasulfone is registered for suppression of wild oats and control of various foxtail and brome species at a rate consistent with the upper registered range of Fierce. This provides another option to reduce the effect of Group 1 & 2 resistant wild oats and grasses, and other annual weeds that impact yield and harvest management. Fierce controls resistant weeds before they become a problem.
**REGISTERED CROPS**
- Soybeans
- Spring wheat (not including durum) – apply 7 days prior to seeding wheat or corn
- Field corn

**WEEDS CONTROLLED**
- Chickweed
- Dandelion
- Green foxtail
- Green and redroot pigweed (including Group 2 and 5 resistant)
- Kochia (Group 2, 4 and 9 resistant)
- Lamb’s-quarters (including Group 2 and triazine resistant)
- Wild buckwheat
- Wild mustard
- Volunteer canola (suppression)

**BENEFITS**
- **Better Performance** than other leading herbicides on tough broadleaf weeds
- **Grassy Weed** management for cleaner fields with a new mode of action
- **Longer Control** with residual activity that lasts up to eight weeks
- **Two Active Ingredients** (proven Group 14 and a new Group 15) for stronger resistance management for 1, 2, 4, 5 and glyphosate resistant weed management and glyphosate resistant biotypes

**PLUS**
- Two modes of action work on the toughest weeds including dandelion, kochia, volunteer canola and pigweed species
- Tank mixable with most burndown and pre-emergent herbicides (i.e. glyphosate, BlackHawk and GoldWing)

**PERFORMANCE TIPS**
1. Emerged weeds – use with glyphosate
2. Flushing weeds – residual activity for newly emerging weeds
3. Emerged crop – Fierce alone can be used up to 3 days post seeding but prior to emergence of registered crops other than wheat
4. Refer to label or crop guide for rates and use patterns
5. DO NOT incorporate after application or anytime prior to seeding
6. Pre-seeding applications require the use of minimum disturbance seeding systems
7. Non-ionic surfactant required if glyphosate is not being tank mixed
ASSESSING SEED TREATMENT OPTIONS

Assessing the performance of your crops is a key part of planning for next year. Considering the pest pressures in your cereal, soybean and pulse crops is an integral part of choosing a good seed treatment option. Seed treatments provide valuable protection for seed and seedlings from pest pressures, and help ensure your valuable crop can reach its full performance potential.

Nufarm has two effective solutions to the problems plaguing pulse, soybean and cereal crops in Western Canada – INTEGO™ Solo and NipsIt™ SUITE.

APHANOMYCES IS EVERYWHERE

“If you’ve grown pulses in the last five years, your soil is probably harbouring aphanomyces,” says Roger Rotariu, Canadian Marketing Manager, Nufarm Agriculture Inc. There is general agreement among researchers in Western Canada that aphanomyces spores are naturalized across the prairies.

So, what do you do for this upcoming season? For starters, it’s best not to reseed pulses into the same fields. But to limit the potential spread of the disease, you’ll need the protection of INTEGO Solo seed treatment. INTEGO Solo is the only seed treatment registered to protect your pulses from aphanomyces.

“If you are planting pulses in fields where you aren’t sure about the level of aphanomyces, we still recommend INTEGO Solo to limit the increase of oospores, and keep the overall inoculum levels down for future growing seasons,” says Rotariu. “But more importantly, using INTEGO Solo in conjunction with other leading broad-spectrum seed treatments will give your pulse crops the best chance for maximum yield potential and continued defense against disease.”

INTEGO Solo

INTEGO Solo is a Group 22 fungicide registered for the control of pythium in all labeled crops, and phytophthora in soybeans, and also suppresses seed rot caused by aphanomyces in field peas and lentils. Because INTEGO Solo is a different chemical group than other seed treatments, it strengthens the fight against pythium resistance when mixed with other products. Together, the combination of seed treatments will provide control of other troublesome diseases like fusarium.

APHANOMYCES, PYTHIUM, PHYTOPHTHORA.

THEY’RE AS BAD AS THEY SOUND.

But not tough enough to beat INTEGO™ Solo.
Cereal growers know that wireworms are prevalent across Western Canada. This insect pest has a long life cycle and can be just about anywhere.

Growers may look at their seed treatment options for cereals and just focus on fusarium and pythium protection. Adding wireworm protection is a simple, stronger choice that will add to your bottom line but won’t cost you more with NipsIt SUITE.

“Free Wireworm Protection”

Cereal growers know that wireworms are prevalent across Western Canada. This insect pest has a long life cycle and can be just about anywhere.

Growers may look at their seed treatment options for cereals and just focus on fusarium and pythium protection. Adding wireworm protection is a simple, stronger choice that will add to your bottom line but won’t cost you more with NipsIt SUITE.

NipsIt SUITE contains three active ingredients – Group 4 insecticide (clothianidin), Group 3 fungicide (metconazole) and Group 4 fungicide (metalaxyl) – for an unbeatable combination of broad-spectrum protection against the most common early insect and disease pests.

Growers can expect great seed and seedling fusarium control, industry leading wireworm protection and the same growth enhancement effect as any other insecticide used as a seed treatment in cereals.

“For more information on INTEGO Solo and NipsIt SUITE, visit Nufarm.ca”

You can pay for wireworm protection with other seed treatments, or just get it with NipsIt SUITE,” says Rotariu. “Based on the suggested retail prices of other leading cereal seed treatments, NipsIt SUITE provides the all-in-one protection of a fungicide and insecticide, at a similar price to other fungicide-only products.”

NipsIt SUITE contains three active ingredients – Group 4 insecticide (clothianidin), Group 3 fungicide (metconazole) and Group 4 fungicide (metalaxyl) – for an unbeatable combination of broad-spectrum protection against the most common early insect and disease pests.

Growers can expect great seed and seedling fusarium control, industry leading wireworm protection and the same growth enhancement effect as any other insecticide used as a seed treatment in cereals.

“With NipsIt SUITE you get control and peace of mind for key cereal diseases, plus the added bonus of “free” wireworm protection,” says Rotariu.

For more information on INTEGO Solo and NipsIt SUITE, visit Nufarm.ca
INNOVATIVE, ALL-IN-ONE CEREAL SEED TREATMENT THAT’S ENGINEERED TO PROTECT™ PLANT GROWTH AND YIELD FROM THE MOST DAMAGING DISEASE AND INSECT PESTS

PEST CONTROL CHALLENGE
Fusarium, pythium and wireworms cause significant losses every year in untreated cereal crops. Add in the damages from many other common pests, and your crops could face severely reduced plant stands and limited yield potential.

NUFARM SOLUTION
NipsIt™ SUITE delivers complete cereal seed and seedling protection. Its all-in-one fungicide and insecticide formulation promotes increased plant stands and enhanced plant growth for consistent yields.
REGISTERED CROPS
• Wheat (spring, winter, durum)

PESTS CONTROLLED

NIPSIT SUITE (ALONE)
• Common bunt (*Tilletia laevis*)
• Common root rot (*Cochliobolus sativus*)
• Fusarium (*Fusarium spp.*)
• Loose smut (*Ustilago tritici*)
• Pythium (*Pythium spp.*)
• Rhizoctonia (*Rhizoctonia solani*)
• Wireworm (suppression)

NIPSIT SUITE + NIPSIT INSIDE®
• For enhanced protection from wireworms and aphids

BENEFITS
• **ADVANCED LOCK TIGHT™ TECHNOLOGY** makes it easy to apply, increases product retention and enhances seed flow consistency
• **PREMIUM PERFORMANCE** compared to leading all-in-one cereal seed treatments
• **BEST FOR KEY PESTS** for long-lasting and strong protection

PLUS
• Contains novel chemistries with three active ingredients
• Delivers better performance than fungicide alone, or other mix options
• Independent research demonstrates an increase in crop yield by more than 3 bu./ac. compared to industry standards*
• Compatible with NipsIt INSIDE for increased wireworm and aphid protection

*Northern Seed LLC, Scobey, MT (2013)

Nufarm Agriculture Inc. is a distributor of Valent products in Canada.
Pea and lentil fields in Western Canada are facing a devastating new root rot. *Aphanomyces euteiches* was found in 60% of pea fields in Alberta and 65% of fields in Saskatchewan in 2014. With no control method available other than crop rotation, growers were walking away from pulse crops as the only way to avoid aphanomyces.

Get serious about protecting your pulse crops from aphanomyces, and soybeans from pythium and phytophthora with INTEGO™ Solo. This product is also available in Western Canada to protect all registered crops from the establishment of pythium resistance by providing a brand new fungicide group for control.
**REGISTERED CROPS**
- Chickpeas
- Dry beans
- Field peas
- Lentils
- Soybeans

**DISEASES CONTROLLED**
- Early season root rot caused by phytophthora
- Pythium seed rot/damping off
- Suppression of early season root rot caused by aphanomyces

**BENEFITS**
- **PROTECTION** of the entire root system – with a unique mode of action that creates a complete zone of defense under ground
- **WIDER SPECTRUM** of protection against more species of pythium and phytophthora
- **BIGGER YIELDS** – field trials show INTEGO Solo in soybeans yielded an average of 1.5 bu./ac. more than standard seed treatment

**PLUS**
- User-friendly treatment – smooth flowability and low-use rate ensures a consistent, even application and easy treatment experience
- Systemic action protects against early season seed rots, seedling blights and longer term infections of plants
- Group 22 active is the only non-Group 4 mode of action available for pythium control

**APPLICATION TIPS**
- For on-farm use and in commercial seed treating systems
- No colourant is included in INTEGO Solo, and seed treated with INTEGO Solo must be conspicuously coloured
- INTEGO Solo should be tank mixed with a product labelled for complete protection against *Fusarium* and *Rhizoctonia* spp., as well as other fungal pathogens
- INTEGO Solo is compatible with most liquid inoculants – always check with inoculant suppliers for specific details and treating instructions

**NOTES**
- Must be mixed with a colourant prior to use
- INTEGO Solo has a very low application volume and does not prevent other seedling diseases such as fusarium and rhizoctonia. As such, INTEGO Solo should always be applied in combination with another seed treatment registered to control these diseases.
Populations of herbicide-resistant weeds have steadily increased over the last several decades across Canada. Researchers with Agriculture and Agri-Food Canada (AAFC) have been tracking herbicide-resistant weeds across the prairies since the 1990s. Research scientist Hugh Beckie estimates that nearly 50% of all cultivated land on the prairies had resistant biotypes in the early 2000s, and that number is climbing.

Based on the latest AAFC weed surveys, Beckie expects that a staggering 38 million acres of cropland in Western Canada is infested with herbicide-resistant weeds. The costs to growers for dealing with these hard-to-control weeds is estimated at $1.1-$1.5 billion a year in increased herbicide use and decreased crop yield.

This season, be sure you are using effective in-crop strategies to tackle your tough weed problems in your cereal crops. Here are the top 10 most abundant weeds in Western Canada that you are likely to see in your area – and the proven Nufarm cereal solutions to help you take them out.

**TOP WESTERN WEEDS. TOP NU FARM CEREAL SOLUTIONS.**

Here are top trouble weeds\(^1\) in Western Canada, and the proven solutions for effective weed control from Nufarm.

**NUFARM SOLUTIONS**

- Control at a registered rate
- C* = Top growth control
- S = Suppression

<table>
<thead>
<tr>
<th></th>
<th>Curtail® M</th>
<th>Enforcer® MSU**</th>
<th>Enforcer® D</th>
<th>Enforcer® M**</th>
<th>Signal® FSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wild oats</td>
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<td>C* S C* S</td>
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<td>2. Green foxtail</td>
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<td>3. Wild buckwheat</td>
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<td>4. Volunteer canola</td>
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<td>5. Canada thistle</td>
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<td>6. Sow thistle</td>
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<td>7. Cleavers</td>
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<td>8. Lamb's-quarters</td>
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<td>C* S C* S</td>
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<td>9. Narrow-leaved hawk's-beard</td>
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<td>10. Dandelion (spring germinated)</td>
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<td>C* S S S S S S S</td>
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</table>

**0.51 litre per acre rate required to control specific weeds.

\(^1\)State of weed resistance in Western Canada by Hugh Beckie, Research Scientist, Agriculture and Agri-Food Canada, topcropmanager.com, June 6, 2016

Photos courtesy of pestmanager.ca and Canola Council of Canada
Curtail™ M

Curtail™ M (Group 4) provides the best in-crop, systemic action to kill the roots of Canada thistle and other troublesome perennials weeds including sow thistle and dandelion. With unsurpassed control of Canada thistle, Curtail M’s broad-spectrum activity also works on many hard-to-control broadleaf weeds including pigweed and volunteer canola.

Enforcer®

Enforcer® delivers effective, post-emergent control of well-established cleavers, kochia and wild buckwheat in one convenient application. Available in three formulations – Enforcer D (Group 4, 6), Enforcer M (Group 4, 6) and Enforcer MSU (Group 2, 4, 6) – Enforcer MSU contains four active ingredients to control all glyphosate-resistant weeds and most Group 2-resistant weeds.

Signal®

Signal® (Group 1) contains clodinafop, the most trusted graminicide to control wild oats in wheat. Signal FSU (Group 1, 2, 4) contains four active ingredients for an all-in-one wheat herbicide with trusted post-emergent grass and broadleaf weed control. Signal FSU contains more fluroxypyr than the competition to help fight Group 2-resistant weeds like cleavers and kochia.

Canada ranks third in the world, behind Australia and the United States, for the number of herbicide-resistant weeds. Manage resistant weeds this season by using herbicides with multiple modes of action, and remember to mix up your chemical groups for each application.
A PROVEN HERBICIDE WITH UNSURPASSED CONTROL OF CANADA THISTLE

WEED CONTROL CHALLENGE
Canada thistle and sow thistle create aggressive in-crop issues as the number one perennial weed problem for many growers. Capable of producing 14 shoots per square metre, and a root system that extends for 20 feet, Canada thistle can reduce cereal yields by up to 38%* and significantly affect crop quality.

*Manitoba Agriculture Food & Rural Initiatives – 2013

NUFARM SOLUTION
Curtail™ M herbicide provides the best in-crop, systemic action with trusted Group 4 chemistry to kill the roots of Canada thistle and other troublesome perennial weeds such as sow thistle and dandelion. With two active ingredients, Curtail M translocates deep down to the extensive thistle roots for effective above- and below-ground control.
REGISTERED CROPS
• Spring wheat (including durum)
• Barley
• Flax
• Canary seed
• Oats
• Timothy

WEEDS CONTROLLED
• Buckwheat (wild, tartary)
• Canada thistle
• Dandelion (top growth)
• Lamb’s-quarters
• Redroot pigweed
• Scentless chamomile
• Shepherd’s-purse
• Sow thistle (annual, perennial)
• Stinkweed
• Volunteer canola
• Volunteer sunflower
• Wild mustard

BENEFITS
• GETS TO THE ROOT OF THE PROBLEM with effective systemic activity of two active ingredients that get down to the roots
• COMPATIBLE with most graminicides to provide excellent weed control including tank mixes with Signal®, Axial® Xtreme, Simplicity™ and many others
• BROAD-SPECTRUM activity on many hard-to-control broadleaf weeds including pigweed and volunteer canola
• BEST OPTION for flax crops with hard-to-kill weeds

PLUS
• The best above- and below-ground systemic thistle control
• Makes harvest easier
• Delivers in-crop yield protection

SUPPORTED GRASS TANK-MIX PARTNERS
WHEAT AND BARLEY
• Assert
• Nufarm Tralkoxydim
• Avenge
• Axial and Axial Xtreme
• Broadband**
• Cordon/Puma
WHEAT ONLY
• Altitude FX2 (Clearfield wheat)
• Signal
• Everest + AgSurf*
• Simplicity*
• Traxos
• Varro**
FLAX
• Poast
• Select/Centurion

CURTAIL M
ACTIVE INGREDIENT
> Group 4 (clopyralid + MCPA ester)

RAINFAST
> 4 hours

TREATMENT AREA
> One case treats 20-27 acres

APPLICATION
> Low rate of 0.6 L/ac. controls small weeds and lighter infestations
> High rate of 0.8 L/ac. controls larger weeds and heavier infestations

CROP STAGING
> Wheat: 3-leaf – just before flag leaf
> Flax: 5 cm to 15 cm in height

*not including durum
*600 mL/ac. rate of Curtail M
All products are trademarks of their respective company.
TOUGH ON WEEDS LIKE CLEAVERS, KOCHIA AND WILD BUCKWHEAT WHILE BEING GENTLE ON YOUR CEREAL CROPS

WEED CONTROL CHALLENGE
Provincial weed surveys repeatedly identify cleavers, kochia and wild buckwheat as a triple threat of weed concerns for cereal growers. With all the herbicide choices available, choosing the most effective product to control problematic broadleaf weeds on your farm can be tough.

NUFARM SOLUTION
Enforcer® MSU herbicide delivers effective, post-emergent control of cleavers, kochia and wild buckwheat in one convenient application. Three active ingredients work together to hit hard-to-control weeds. Now with the addition of two actives in Boost®, Enforcer MSU can be used to target your toughest weed challenges, all in one case.
**REGISTERED CROPS**
- Barley
- Wheat (spring, durum and winter)

**MAJOR WEEDS CONTROLLED**

<table>
<thead>
<tr>
<th>40 ACRES PER CASE</th>
<th>30 ACRES PER CASE</th>
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<tbody>
<tr>
<td>Buckwheat (all, suppression)</td>
<td>Hemp-nettle</td>
</tr>
<tr>
<td>Kochia (including glyphosate-resistant biotypes)</td>
<td>Lady’s-thumb</td>
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<td></td>
<td>Night-flowering catchfly</td>
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<td>Ragweed</td>
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<td>Redroot pigweed (suppression)</td>
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<td></td>
<td>Round-leaved mallow</td>
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<td>Russian thistle</td>
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<td>Lamb’s-quarters</td>
<td>Narrow-leaved hawk’s-beard (suppression)</td>
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<tr>
<td>Mustards (all)</td>
<td>Scentless chamomile (new growth)</td>
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<tr>
<td></td>
<td>Shepherd’s-purse</td>
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<td></td>
<td>Smartweeds</td>
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<td></td>
<td>Stinkweed</td>
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<tr>
<td></td>
<td>Stork’s-bill (suppression)</td>
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<tr>
<td></td>
<td>Volunteer canola (all biotypes)</td>
</tr>
<tr>
<td></td>
<td>Volunteer flax</td>
</tr>
</tbody>
</table>

**TOP-GROWTH CONTROL**
- Bluebur (top growth control)
- Canada thistle
- Cocklebur (top growth control)
- Cow cockle
- Flixweed
- Groundsel (top growth control)
- Sow thistle

**BENEFITS**
- **BEST OPTION** to target the widest spectrum of tough-to-control weeds like chickweed, hemp-nettle and volunteer canola
- **GENTLE ON THE CROP** with a wide application window
- **COMPATIBLE** with most grass herbicides for tank-mix flexibility

**PLUS**
- Controls all glyphosate-tolerant weeds and most Group 2-resistant weeds
- Perfect for the weed spectrum of the Black and Grey soil zones

**TANK-MIX PARTNERS**
- Signal (clodinafop)*
- Cordon (fenoxaprop)
- Everest (flucarbazone)*
- Varro (thiencarbazone)*
- Simplicity (pyroxasulam)*
- Axial (pinoxaden)

---

*Wheat only*
Enforcer® D

**REGISTERED CROPS**
- Spring wheat (including durum)
- Barley

**MAJOR WEEDS CONTROLLED**

0.25 L/ac:
- Cleavers
- Common groundsel
- Knotweed
- Kochia (up to 5 cm tall)
- Lamb’s-quarters
- Shepherd’s-purse
- Stinkweed
- Volunteer canola
- Wild mustard

0.5 L/ac:
*Weeds listed above plus:
- Canada thistle (suppression)
- Dandelion
- Hemp-nettle
- Kochia
- Lady’s-thumb
- Night-flowering catchfly
- Redroot pigweed
- Round-leaved mallow
- Russian thistle
- Storksbill
- Volunteer flax
- Wild buckwheat

**BENEFITS**
- SUITED FOR THE BROWN SOIL ZONE to target weeds such as kochia, Russian thistle and stork’s bill
- RATE FLEXIBILITY with options that capture targeted weed problems
- TANK-MIX FLEXIBILITY and compatibility with most grass herbicides

**PLUS**
- Controls all glyphosate-tolerant weeds and most Group 2-resistant weeds
- All-in-one formulated product for ease and speed of use
- Convenient packaging options in cases, drums and totes

**TANK-MIX PARTNERS**
- Signal (clodinafop)*
- Nufarm Tralkoxydim
- Cordon (fenoxaprop)
- Everest (flucarbazone)*
- Varro (thiencarbazone)*
- Simplicity (pyroxsulam)*

**ENFORCER D**

**ACTIVE INGREDIENTS**
- > Group 4 (2,4-D ester + fluroxypyr)
- > Group 6 (bromoxynil)

**RAINFAST**
- > 1 hour

**TREATMENT AREA**
- > 0.25 L/ac. rate:
  - One case treats 80 acres
  - One drum treats 480 acres
  - One tote treats 1,920 acres
- > 0.50 L/ac. rate:
  - One case treats 40 acres
  - One drum treats 240 acres
  - One tote treats 960 acres

**CROP STAGING**
- > 4 leaf – early flag

**NOTES**
- > Best tank-mix partner with tralkoxydim

*Wheat only
Enforcer® M

REGISTERED CROPS
- Spring wheat (including durum)
- Winter wheat
- Barley
- Canary seed

MAJOR WEEDS CONTROLLED
0.25 L/ac:
- Kochia (up to 5 cm tall)
- Lamb’s-quarters
- Wild buckwheat (suppression)
- Wild mustard

0.5 L/ac:
Weeds listed above plus:
- Bluebur
- Canada thistle (top growth control only)
- Chickweed
- Cleavers (up to 6 whorls)
- Cocklebur
- Common buckwheat
- Common groundsel
- Common ragweed
- Cow cockle
- Flixweed
- Green smartweed
- Hemp-nettle
- Lady’s-thumb
- Night-flowering catchfly
- Pale smartweed
- Perennial sow thistle (top growth control only)
- Redroot pigweed (suppression)
- Russian thistle
- Scentsless chamomile
- Shepherd’s-purse
- Stinkweed
- Stork’s-bill (suppression)
- Triazine-resistant pigweed
- Volunteer canola
- Volunteer flax
- Volunteer sunflower
- Wild and Tartary buckwheat
- Wild mustard (also ball and wormseed)

BENEFITS
- SUITED FOR THE DARK BROWN AND BLACK SOIL ZONE to target weeds such as volunteer canola, hemp-nettle and chickweed
- MANAGE TIME with the widest window of application
- TANK-MIX FLEXIBILITY and compatibility with most grass herbicides

PLUS
- Controls all glyphosate-tolerant weeds and most Group 2-resistant weeds
- All-in-one formulated product for ease and speed of use
- Convenient packaging options in cases, drums and totes

TANK-MIX PARTNERS
- Signal (clodinafop)*
- Nufarm Tralkoxydim
- Cordon (fenoxaprop)
- Everest (flucarbazone)*
- Varro (thiencarbazone)*
- Simplicity (pyroxsulam)*
- Axial (pinoxaden)

*Wheat only

ENFORCER M

ACTIVE INGREDIENTS
- > Group 4 (MCPA ester + fluroxypyr)
- > Group 6 (bromoxynil)

RAINFAST
- > 1 hour

TREATMENT AREA
- > 0.25 L/ac. rate:
  One case treats 80 acres
  One drum treats 480 acres
  One tote treats 1,920 acres
- > 0.50 L/ac. rate:
  One case treats 40 acres
  One drum treats 240 acres
  One tote treats 960 acres

CROP STAGING
- > 2 leaf – early flag for labelled cereal crops
Every year, wild oats return as one of the top weed problems for wheat growers across Western Canada. It’s one of those weeds that just seems to be part of the landscape – competing with young wheat crops for nutrients, moisture and sunlight.

Signal® herbicide delivers the proven performance of the leading Group 1 graminicide of the century (clodinafop). Growers know and trust wild oat control from Signal to keep wheat fields clean, healthy and profitable, that’s why clodinafop is used on more wheat acres than any other grass herbicide in Western Canada.
REGISTERED CROPS
• Wheat (spring, durum)

MAJOR WEEDS CONTROLLED
• Wild oats (up to 6-leaf stage)
• Barnyard grass
• Foxtail (green, yellow)
• Persian darnel
• Volunteer canary seed (requires 115 mL/ac.)

BENEFITS
• PROVEN crop safety
• TRUSTED PERFORMANCE for wild oat control
• TANK-MIX FLEXIBILITY with a wide range of broadleaf herbicide partners

PLUS
• Superior wild oat and grassy weed control
• Ground and aerial application
• Tried and true product performance

TANK-MIX PARTNERS
BROADLEAF HERBICIDES
• Approve®/Thumper
• Curtail* M
• Estaprop®
• Mextrol®/Buctril M
• Trophy®
• 2,4-D Amine/Ester+
• MCPA Amine/Ester
• Flurox® 24/Attain®
• Dyvel®
• Frontline†
• Lontrel®
• Prestige®†
• Refine® SG†
• Target®†
• Enforcer® M
• Enforcer® D
• Infinity†
• OcTTain†
• Pixxaro†

INSECTICIDES
• Decis®†
• Matador®†

FUNGICIDES
• Tilt®/Nufarm Propiconazole†

SIGNAL
ACTIVE INGREDIENTS
> Group 1 (clodinafop)

RAINFAST
> 30 minutes

TREATMENT AREA
> One case treats 40 acres

TANK-MIX ORDER
> Any broadleaf herbicide first
> Signal
> Enhance®

CROP STAGING
> Prior to emergence of 4th tiller

NOTES
> Always follow tank-mix order
> Follow label directions for any tank-mix products added

†Supported tank mix
Wheat faces tough competition every season from weeds. Wild oats and tough-to-kill broadleaf weeds top the list for freeloaders looking to steal vital nutrients and yield from your wheat crop. There are a lot of choices for post-emergent weed control. Choosing the best combination for your weed conditions can be confusing.

Signal® FSU herbicide delivers winning control in the battle against weeds in wheat. Its four active ingredients (Group 1, 2 and 4) make Signal FSU a superior all-in-one post-emergent wheat herbicide – with the most trusted graminicide on the market and the number one broadleaf active ingredient. Weeds can’t win with Signal FSU.
REGISTERED CROPS
• Wheat (spring, durum)

MAJOR WEEDS CONTROLLED

GRASS WEEDS
• Barnyard grass
• Foxtail (green or yellow)
• Persian darnel
• Volunteer canary seed
• Volunteer tame oats
• Wild oats

BROADLEAF WEEDS
• Annual smartweed (green smartweed, lady’s-thumb)
• Ball mustard
• Canada thistle (suppression)
• Chickweed
• Cleavers
• Common groundsel
• Corn spurry
• Cow cockle
• Flixweed
• Hemp-nettle
• Kochia
• Lamb’s-quarters
• Narrow-leaved hawk’s-beard
• Redroot pigweed
• Round-leaved mallow (suppression)
• Russian thistle
• Scentless chamomile (suppression)
• Shepherd’s purse
• Sow thistle (suppression)
• Stinkweed
• Stork’s-bill (suppression)
• Tartary buckwheat
• Volunteer canola (excluding Clearfield®)
• Volunteer flax
• Volunteer sunflower
• Wild buckwheat
• Wild mustard

BENEFITS
• ALL-IN-ONE post-emergent wheat herbicide
• TRUSTED, PROVEN GRAMICIDE for wild oat and foxtail control
• CONTROLS PROBLEM BROADLEAF WEEDS with fluroxypyr, the leading active ingredient in broadleaf control in Western Canada plus the proven benefits of two SU actives for support

PLUS
• Contains more fluroxypyr than the competition, to help fight Group 2-resistant weeds like cleavers and kochia
• Two modes of action target broadleaf weeds to help slow resistance development
• Contains the most trusted wheat graminicide on the market

TANK-MIX PARTNERS
• 2,4-D Ester 700
• MCPA Ester 600

SIGNAL FSU

ACTIVE INGREDIENTS
> Group 1 (clodinafop)
> Group 2 (tribenuron, thifensulfuron)
> Group 4 (fluroxypyr)

RAINFAST
> 4 hours

TREATMENT AREA
> One case treats 40 acres

TANK-MIX ORDER
> Boost
> Signal F
> Enhance

CROP STAGING
> 2 leaf – prior to emergence of 4th tiller

NOTES
> Always follow tank-mix order
THE SAFE AND EFFECTIVE ANSWER TO CLEAVERS AND OTHER BROADLEAF WEEDS IN WHEAT

WEED CONTROL CHALLENGE
Cleavers can smother a cereal crop and cause yield losses. These hard-to-control weeds also clog combines and other equipment making harvest a nightmare. Growers need to be sure they get exceptional performance the first time to help keep these tough weeds from reappearing in subsequent crops.

NUFARM SOLUTION
Trophy® herbicide delivers outstanding control of cleavers and hard-to-control annual and winter annual weeds for a clean field at harvest. Trophy delivers a calculated rate of active ingredient formulated to battle the toughest weeds, even herbicide-resistant weeds. And Trophy keeps weed populations and seed bank levels in check.
REGISTERED CROPS
- Wheat (winter, spring, durum)
- Barley
- Canary seed

WEEDS CONTROLLED
- Burdock
- Cleavers
- Cocklebur
- Common ragweed* (including glyphosate resistant)
- Green smartweed (suppression)
- Hemp-nettle
- Kochia
- Lamb’s-quarters*

*including Group 2 and 5 resistant biotypes

BENEFITS
- THE MOST CONSISTENT CONTROL of vetch and cleavers
- STRONG ACTIVITY on hemp-nettle and cocklebur
- GREAT CHOICE for targeting Group 2- or Group 5-resistant weeds

PLUS
- Effective in-season control of broadleaf weeds
- Great tank-mix partner with Luxxur® herbicide
- Excellent crop safety
- Tank mixable with most fungicides and foliar feeds
- No surfactant required

TROPHY

ACTIVE INGREDIENTS
- Group 4 (fluroxypyr)
- Group 4 (MCPA)

RAINFAST
- 1 hour

TREATMENT AREA
- One case treats 20 acres

TANK-MIX ORDER
- fluroxypyr
- MCPA

CROP STAGING
- 3 leaf-flag leaf
New fungicide protects cereals from fusarium head blight and rusts

**REGISTERED CROPS**
- Barley
- Oats
- Wheat (spring, durum, winter)

**DISEASES CONTROLLED**
- Fusarium head blight (suppression)
- Rusts (leaf, stem and stripe) (*Puccinia triticina, P. graminis, P. striiformis*)
- Septoria (leaf blotch) (*Septoria tritici*)
- Tan spot (*Pyrenophora tritici-repentis*)
- Net blotch (*Pyrenophora teres*)
- Spot blotch (*Cochliobolus sativus*)
- Scald (*Rhynchosporium secalis*)
- Powdery mildew (*Erysiphe graminis*)
- Crown rust (oat) (*Puccinia coronata*)
- Septoria glume blotch

**BENEFITS**
- NEW ALTERNATIVE TEBUCONAZOLE foliar fungicide
- FUSARIUM HEAD BLIGHT suppression in cereal crops
- WORLD’S LEADING rust control

**PLUS**
- Control of stripe rust which is a growing issue for Canadian farmers especially as it has now been found to overwinter in some of our geographies
- One solution + many different timings and diseases. Hornet can be used from 4-leaf to flowering depending on the disease targeted.
- Crown and stem rust control in oats
- Timing is critical to apply Hornet PRIOR to onset of disease

**PERFORMANCE TIPS**
- Apply prior to disease development when heat and humidity are conducive to infections

**FOR FUSARIUM HEAD BLIGHT**
- Optimum coverage of the head is required
- Recommended use of a non-ionic surfactant such as Carrier when sprayed alone for best results
- Apply from the time 75% of the main heads have emerged up to 50% flowering of the main heads

**FOR LEAF DISEASE**
- Apply at the first signs of disease development
- Best yield results when the flag leaf is protected

**ACTIVE INGREDIENT**
- Group 3 (tebuconazole)

**TREATMENT AREA**
- One case treats:
  - 160 acres for fusarium head blight
  - 210 acres for leaf diseases

**APPLICATION**
- 119 mL/ac. for fusarium head blight from 75% head emergence to 50% flower
- 89 mL/ac. for leaf diseases from the 4-leaf to early flag leaf

**HORNET**

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- 89 mL/ac. for leaf diseases from the 4-leaf to early flag leaf
Nufarm Propiconazole

Dependable, proven control of rust and leaf disease in cereals, and Blackleg in canola

REGISTERED CROPS

• Barley
• Canary seed
• Canola
• Dry beans
• Oats
• Soybeans
• Spring wheat (including durum)
• Winter wheat

DISEASES CONTROLLED

CEREALS

• Crown rust (Puccinia coronata)
• Net blotch (Pyrenophora teres)
• Scald (Rynchosporium secalis)
• Septoria leaf/Glume blotch (Septoria spp.)
• Septoria leaf mottle*** (Septoria triseti)
• Stem rust (Puccinia graminis)
• Stripe rust (Puccinia striiformis)
• Tan spot (Pyrenophora tritici-repentis)

CANOLA

• Blackleg (Leptosphaeria maculans)

BENEFITS

• CURATIVE AND PREVENTATIVE for stripe rust, septoria, tan spot and net blotch
• LONG-LASTING ACTION against blackleg in canola that can increase yields by up to 15%*
• PREVENTS RUST IN CEREALS increasing yields by an average of 34% under moderate disease pressure**

PLUS

• Industry leading tank-mix flexibility and crop safety
• Mixes safely with bromoxynil and Signal
• No adjuvant required
• Convenient, all-in-one packaging

TANK-MIXES

• Multiple herbicide and insecticide tank-mix partners are available – consult tank-mix partner label

* compared to untreated, Bradley et al. 2006
** Chen et al. 2001 to 2013
*** suppression only
PRE-HARVEST CHALLENGE
Time alone is not the enemy. The potential losses that the passing of time causes is where crop management strategies are required. It’s simple, shortening the time to get the crop in the bin protects quality and creates a more valuable crop. In addition time management is a requirement of today’s farms. By managing this precious resource and process growers can plan for the proper implementation of their farm resources.

NUFARM SOLUTION
DriFast™ desiccant delivers another option to help growers plan harvest management. DriFast (Group 22) contains the trusted active diquat, similar to Reglone, providing Canadian farmers another tool to dry down the crop quickly allowing for a more efficient harvest and higher quality grain.
REGISTRED CROPS
- Soybeans
- Canola
- Chickpeas
- Flax
- Lentils
- Peas
- Mustard (condiment use only)
- Sunflower
- Dry beans
- Oats (corn spurry control)

APPLICATION INFORMATION
USE RATES
Chickpeas:
Ground: 0.5-0.7 L/ac.
Air: 0.7 L/ac.
Lentils, dry beans, soybeans, peas, canola, mustard, flax, sunflowers, oats:
Ground: 0.5-0.7 L/ac.
Air: 0.7-0.9 L/ac.

HARVEST TIMING**
- **Peas:** 5-7 days after application
- **Lentils:** 4-10 days after application
- **Chickpeas:** 4-7 days after application
- **Dry beans and soybeans:** When crop is ready (does not mature beans or lower moisture content)
- **Canola and mustard:** No later than 14 days after application
- **Flax:** When flaxseed tests “dry”
- **Sunflower:** 15-20 days after application

**days to harvest may vary based on environmental conditions

APPLICATION TIMING
Refer to label or crop guide for various timing of application on registered crops.

BENEFITS
- **FASTER HARVEST** typically 4-10 days after application
- **CONTACT ACTIVITY** that provides fast drydown of green material
- **SAFE** to use on crops that will be used for seed

PERFORMANCE TIPS
1. **Water volume**
   - Ground: minimum 20 gal./ac.
   - Air: minimum 4 gal./ac.

2. **Use of adjuvant is required**
   - Add non-ionic surfactant such as AGRAL 90 at 1 L per 1,000 L, LI 700 at 2.5 L per 1,000 L or other non-ionic surfactants at equivalent rates as stated on individual labels

3. Performance may be enhanced when applied in the evenings or on cloudy days
BUILD A STRONGER SOYBEAN PROGRAM

With record levels of soybeans planted in Western Canada this year, there are more growers than ever looking for proven solutions to get the most from their crop. Nufarm knows the importance of getting weeds out of the way early in the season. Our trusted portfolio includes pre-seed and in-crop weed control to set up your soybeans for stronger performance, better yields and a better bottom line.

BIGGER YIELDS

Extensive trials have shown a 4-9 bu./ac. yield gain when you use a pre-emergent herbicide before a post-glyphosate application, compared to only using a post-emergent application of glyphosate.

REDUCE THE COMPETITION

Keep your soybeans clean by reducing weed competition during the critical weed-free period from VE to V3.*

MANAGE YOUR RISK

Using multiple modes of action makes for a stronger stewardship plan, and reduces the risk of weeds developing resistance to glyphosate and dicamba. You’ll also be helping to protect the integrity of technology traits like Roundup Ready 2 Xtend® soybeans.

Some of the most effective ways to manage resistant weeds includes crop rotation, changing weed management practices and using multiple modes of action. Tank mixing herbicides to deliver multiple modes of action will exponentially decrease the risk of resistant weeds developing.

STRENGTHEN YOUR PROGRAM

Nufarm and Monsanto have partnered to deliver exceptional broad-spectrum control for improved performance and stewardship in the leading herbicide-tolerant soybean system.

For more information, visit Nufarm.ca or call 1.800.868.5444 to Ask a Nufarmer.

1Data from Purdue Extension Weed Science and Ohio State horticulture and crop science extension fact sheet “The benefits of Preemergence herbicides in Roundup Ready soybean” April 2008. *Fickett et al., 2009, Jeschke et al., 2011, Ali et al., 2013 Always read and follow label directions. BlackHawk®, TriActor® are registered trademarks of Nufarm Agriculture Inc. Bifecta™ is a trademark of Nufarm Agriculture Inc. Valenta™ is a trademark of Valent U.S.A. LLC. Fierce® is a registered trademark of Valent U.S.A. LLC. Roundup and Roundup Ready 2 Xtend®, Xtendimax® are registered trademarks of Monsanto Technology LLC, Monsanto Canada, Inc. licensee.
### Soybeans for Success Decision Guide

#### Pre-Seed Herbicide

<table>
<thead>
<tr>
<th>Pre-Seed Application Tank Mix</th>
<th>In-Crop Application Tank Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Valtera</strong></td>
<td><strong>Valtera</strong> + BlackHawk + Glyphosate</td>
</tr>
<tr>
<td>• Multiple Mode of Action defense strategy</td>
<td></td>
</tr>
<tr>
<td>• Improved control of kochia, cleavers, mustard, pigweeds and suppression of volunteer canola</td>
<td></td>
</tr>
<tr>
<td>• Longer residual control</td>
<td></td>
</tr>
<tr>
<td><strong>Glyphosate</strong> + Fierce (for grasses) + ADD BlackHawk (for exceptionally dirty fields)</td>
<td></td>
</tr>
</tbody>
</table>

### Product Use Matrix

<table>
<thead>
<tr>
<th>Condition</th>
<th>Pre-Seed Application Tank Mix</th>
<th>Pre-Seed Application Tank Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>If volunteer HT canola is present</td>
<td>Valtera + BlackHawk + Glyphosate</td>
<td></td>
</tr>
<tr>
<td>If cleavers are present</td>
<td>Valtera + BlackHawk + Glyphosate</td>
<td></td>
</tr>
<tr>
<td>If glyphosate-tolerant kochia is present</td>
<td>Valtera + BlackHawk + Glyphosate</td>
<td></td>
</tr>
</tbody>
</table>

### Planned in Crop Herbicide

| Glyphosate |

Roundup Ready 2 Xtend®, Roundup Xtend® and XtendiMax® are registered trademarks of Monsanto Technology LLC, Monsanto Canada Inc. licensee. ©2017 Monsanto Canada Inc.
NUFARM SOLUTIONS GUIDE

There are endless options available to protect your crop from insects, weeds and diseases. The Nufarm Solutions Guide will help you find the best solution for your operation.

### PRE-SEED BURNDOWN

<table>
<thead>
<tr>
<th>NUFARM PRODUCT</th>
<th>ACTIVE INGREDIENT</th>
<th>APPLICATION RATE</th>
<th>RAINFAST</th>
<th>ACRES/CASE</th>
<th>REGISTERED CROPS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aim®/Spike®</strong>&lt;br&gt; Group 14, 2</td>
<td>carfentrazone 240 g/L, tribenuron 75%</td>
<td>carfentrazone 15 mL/ac., tribenuron 4 g/ac.</td>
<td>6 hr</td>
<td>450</td>
<td>cereals</td>
<td>Farm convenience co-pack: targeting dandelion and narrow-leaved hawk’s-beard</td>
</tr>
<tr>
<td><strong>Amitrol 240</strong>&lt;br&gt; Group 11</td>
<td>amitrol 231 g/L</td>
<td>various – refer to product label</td>
<td>3 hr</td>
<td></td>
<td>canola, wheat, barley, peas, soybeans</td>
<td>For annual (including Roundup Ready volunteer canola) and perennial pre-seed weed control in canola, wheat, barley, peas and soybeans</td>
</tr>
<tr>
<td><strong>BlackHawk®</strong>&lt;br&gt; Group 14, 4</td>
<td>pyraflufen-ethyl 6.1g/L, 2,4-D ester 473 g a.e. / L</td>
<td>300 mL/ac.</td>
<td>1 hr</td>
<td>60</td>
<td>canola, wheat, barley, peas, summerfallow, triticale, wheat (spring, winter, durum)</td>
<td>Burndown product that combines contact and systemic activity, Group 14 and 4, for enhanced weed kill. Can be sprayed spring or fall.</td>
</tr>
<tr>
<td><strong>CONQUER®</strong>&lt;br&gt; Group 14, 6</td>
<td>carfentrazone 240 g/L, bromoxynil 235 g/L</td>
<td>carfentrazone 15 mL/ac., bromoxynil 240 mL/ac.</td>
<td>6 hr</td>
<td>80</td>
<td>canola</td>
<td>Enhanced two modes of action non-residual burndown in front of sensitive crops like canola. Excellent control of resistant volunteer canola, resistant kochia and cleavers.</td>
</tr>
<tr>
<td><strong>GoldWing®</strong>&lt;br&gt; Group 14, 4</td>
<td>pyraflufen-ethyl 13.5 g/L&lt;br&gt; MCPA ester 420 g/L</td>
<td>133-266 mL/ac.</td>
<td>1 hr</td>
<td>160</td>
<td>field pea, barley, canary seed, corn (field, sweet, pop), oats, rye, triticale, wheat (spring, durum, winter)</td>
<td>Burndown product combining contact and systemic activity of Group 14 and 4. Save time and avoid waste with convenient packaging – one case treats 160 acres.</td>
</tr>
</tbody>
</table>
### PRE-SEED BURNDOWN

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<thead>
<tr>
<th>NUFARM PRODUCT</th>
<th>ACTIVE INGREDIENT</th>
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<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>KoAct® Group 2, 4</td>
<td>tribenuron 75%, 2,4-D ester 660 g/L</td>
<td>tribenuron 4 g/ac., 2,4-D ester 700 215 mL/ac.</td>
<td>4 hr</td>
<td>80</td>
<td>prior to seeding wheat (spring, durum), barley Burndown product that provides systemic activity with two modes of action, Group 2 and 4, for enhanced weed kill. Can be sprayed alone or with glyphosate, spring or fall.</td>
</tr>
<tr>
<td>Rival® Group 3</td>
<td>trifluralin: Rival 10G: 10%, Rival EC: 500 g/L</td>
<td>various</td>
<td></td>
<td></td>
<td>wheat, barley, canola, beans, flax, lentils, vegetables Granular formulation: 22.7 kg/454 kg. EC formulation: 2 x 9 L case or 900 L tote.</td>
</tr>
</tbody>
</table>

### DESICCANT

<table>
<thead>
<tr>
<th>NUFARM PRODUCT</th>
<th>ACTIVE INGREDIENT</th>
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<th>RAINFAST ACRES/CASE</th>
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<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DriFast® Group 22</td>
<td>diquat (240 g/L)</td>
<td>Various – refer to product label</td>
<td>15 min</td>
<td>28-40</td>
<td>soybeans, canola, chickpeas, flax, lentils, peas, mustard (condiment use only), sunflower, dry beans, oats (corn spurry control) Proven active ingredient that is an effective drydown solution for most crops.</td>
</tr>
</tbody>
</table>

### PRE-EMERGENT RESIDUAL HERBICIDES

<table>
<thead>
<tr>
<th>NUFARM PRODUCT</th>
<th>ACTIVE INGREDIENT</th>
<th>APPLICATION RATE</th>
<th>APPLICATION TIMING</th>
<th>ACRES/CASE</th>
<th>REGISTERED CROPS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fierce® Group 15, 14</td>
<td>pyroxasulfone 42.5%, flumioxazin 33.5%</td>
<td>85 g/ac.</td>
<td>pre-seed pre-emergent</td>
<td>128</td>
<td>soybeans, spring wheat, field corn Residual control of grassy and broadleaved weeds. Apply 7 days prior to seeding spring wheat or field corn. Requires moisture for activation.</td>
<td></td>
</tr>
<tr>
<td>Valtera® Group 14</td>
<td>flumioxazin 51.1%</td>
<td>56.7-85 g/ac.</td>
<td>pre-seed pre-emergent</td>
<td>107-160</td>
<td>fields peas, soybeans, wheat, chickpeas, lentils (fall application) Residual control of kochia, chickweed, dandelion and suppression of volunteer canola ahead of sensitive pulse crops, spring or fall. Requires moisture for activation.</td>
<td></td>
</tr>
<tr>
<td>HERBICIDES</td>
<td></td>
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<td>NUFARM PRODUCT</td>
<td>ACTIVE INGREDIENT</td>
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<td>RAINFAST ACRES/CASE</td>
<td>REGISTERED CROPS</td>
<td>COMMENTS</td>
<td></td>
</tr>
<tr>
<td>Approve&lt;sup&gt;®&lt;/sup&gt; Group 6, 4</td>
<td>bromoxynil 225 g/L, 2,4-D ester 225 g/L</td>
<td>500 mL/ac.</td>
<td>1 hr</td>
<td>40</td>
<td>wheat (spring, durum), barley</td>
<td>2 x 10 L case, 100 L drum or 500 L tote. Similar brand: Thumper&lt;sup&gt;®&lt;/sup&gt;</td>
</tr>
<tr>
<td>Assert&lt;sup&gt;®&lt;/sup&gt; Group 2</td>
<td>imazamethabenz 300 g/L</td>
<td>540-670 mL/ac. (340 mL/ac. sunflowers)</td>
<td>4 hr</td>
<td>32-40 (64 ac. sunflowers)</td>
<td>wheat (spring, durum), barley, sunflowers</td>
<td>Only Group 2 wild oat herbicide registered for barley</td>
</tr>
<tr>
<td>Cordon&lt;sup&gt;®&lt;/sup&gt; Group 1</td>
<td>fenoxaprop-p-ethyl 120 g/L</td>
<td>310 mL/ac.</td>
<td>1 hr</td>
<td>60</td>
<td>wheat (spring, durum), barley</td>
<td>Safe grass control in barley and wheat (spring, durum). Similar brand: Puma&lt;sup&gt;®&lt;/sup&gt; Super</td>
</tr>
<tr>
<td>Curtail&lt;sup&gt;™&lt;/sup&gt; M Group 4</td>
<td>clopyralid 50 g/L, MCPA ester 280 g/L</td>
<td>600-800 mL/ac.</td>
<td>4 hr</td>
<td>20-27</td>
<td>wheat (spring, durum), barley, oats, forage grasses, flax</td>
<td>2 x 8 L case, 112 L drum or 960 L tote</td>
</tr>
<tr>
<td>Enforcer&lt;sup&gt;®&lt;/sup&gt; MSU Group 6, 4, 2</td>
<td>fluroxypyr 80 g/L, bromoxynil 225 g/L, MCPA ester 280 g/L, thifensulfuron 50%, tribenuron 25%</td>
<td>375 mL/ac. + 2.7 g/ac.</td>
<td>4 hr</td>
<td>40</td>
<td>barley, wheat (spring, durum, winter)</td>
<td>Best choice to control Canada thistle (top growth), chickweed, hemp-nettle and volunteer canola</td>
</tr>
<tr>
<td>Enforcer&lt;sup&gt;®&lt;/sup&gt; D Group 6, 4</td>
<td>bromoxynil 190 g/L, 2,4-D ester 240 g/L, fluroxypyr 80 g/L</td>
<td>250-500 mL/ac.</td>
<td>1 hr</td>
<td>40-80</td>
<td>wheat (spring, durum, barley)</td>
<td>Premium product for control of kochia, wild buckwheat, russian thistle, stork’s-bill and many more broadleaf weeds in an all-in-one formulation. Available in 2 x 10 L cases, 120 L drums or 480 L totes.</td>
</tr>
<tr>
<td>Enforcer&lt;sup&gt;®&lt;/sup&gt; M Group 6, 4</td>
<td>bromoxynil 200 g/L, MCPA ester 200 g/L, fluroxypyr 80 g/L</td>
<td>250-500 mL/ac.</td>
<td>1 hr</td>
<td>40-80</td>
<td>wheat (spring, durum, winter), barley, canary seed</td>
<td>Premium product for control of wild buckwheat, cleavers, volunteer canola, chickweed and many more broadleaf weeds in a convenient, all-in-one formulation. Wide range of tank-mix options. Available in 2 x 10 L cases, 120 L drums or 480 L totes.</td>
</tr>
<tr>
<td>Nufarm Product</td>
<td>Active Ingredient</td>
<td>Application Rate</td>
<td>Rainfast</td>
<td>Acres / Case</td>
<td>Registered Crops</td>
<td>Comments</td>
</tr>
<tr>
<td>----------------</td>
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</tr>
<tr>
<td><strong>Estaprop® XT</strong>&lt;br&gt;Group 4</td>
<td>dichlorprop-p 210 g/L, 2,4-D ester 400 g/L</td>
<td>485 mL/ac.</td>
<td>1 hr</td>
<td>40</td>
<td>wheat (spring, durum), barley</td>
<td>Unsurpassed kochia control, new concentrated formulation. Available in 40 acre case, 200 acre drum or 960 acre tote.</td>
</tr>
<tr>
<td><strong>Flurox™-24</strong>&lt;br&gt;Group 4</td>
<td>fluroxypyr 180 g/L, 2,4-D ester 660 g/L</td>
<td>fluroxypyr 180 mL/ac. plus 2,4-D ester 700 at 258 mL/ac.; fluroxypyr 240 mL/ac. plus 2,4-D ester 700 at 340 mL/ac.</td>
<td>1 hr</td>
<td>30-40</td>
<td>wheat (spring, durum), barley</td>
<td>Superior control of cleavers, Russian thistle and kochia. Similar brand: Attain™</td>
</tr>
<tr>
<td><strong>Mextrol® 450</strong>&lt;br&gt;Group 6, 4</td>
<td>bromoxynil 225 g/L, MCPA ester 225 g/L</td>
<td>500 mL/ac.</td>
<td>1 hr</td>
<td>40</td>
<td>wheat (spring, durum), barley, oats, flax, canary seed</td>
<td>Available in 2 x 10 L case, 100 L drum or 500 L tote. Similar brand: Buctril® M</td>
</tr>
<tr>
<td><strong>Nufarm Tralkoxydim</strong>&lt;br&gt;Group 1</td>
<td>tralkoxydim 400 g/L</td>
<td>200 mL/ac.</td>
<td>1 hr</td>
<td>40</td>
<td>barley, wheat (spring, durum, winter), rye (spring, fall), triticale, various forage grasses (grown for seed)</td>
<td>Premium product for control of Persian darnel. Packaging includes adjuvant. 40 acre case or 320 acre drum. Similar brand: Achieve®</td>
</tr>
<tr>
<td><strong>Signal®</strong>&lt;br&gt;Group 1</td>
<td>clodinafop-propargyl 240 g/L</td>
<td>93 mL/ac.</td>
<td>30 min</td>
<td>40</td>
<td>wheat (spring, durum)</td>
<td>Packaging includes adjuvant Enhance®. Similar brand: Horizon®</td>
</tr>
<tr>
<td><strong>Signal FSU</strong>&lt;br&gt;(Group 1,4,2)</td>
<td>clodinafop 112 g/L, fluroxypyr 217 g/L, thifensulfuron 50%, tribenuron 25%</td>
<td>Signal F 202 mL/ac., Boost 8 g/ac.</td>
<td>4 hr</td>
<td>40</td>
<td>wheat (spring, durum)</td>
<td>Dependable wild oat and grass control, combined with broad-spectrum broadleaf weed control. Signal FSU puts four active ingredients in one convenient 40 acre case. Similar brands: Barricade II + Harmony</td>
</tr>
<tr>
<td><strong>Trophy®</strong>&lt;br&gt;Group 4</td>
<td>fluroxypyr 180 g/L, MCPA ester 600 g/L</td>
<td>fluroxypyr 240 mL/ac. MCPA ester 600 375 mL/ac.</td>
<td>1 hr</td>
<td>20</td>
<td>wheat (spring, durum), barley, canary seed</td>
<td>Safe on crops, exceptional cleaver control</td>
</tr>
</tbody>
</table>
### FUNGICIDES

<table>
<thead>
<tr>
<th>NUFARM PRODUCT</th>
<th>ACTIVE INGREDIENT</th>
<th>APPLICATION RATE</th>
<th>RAINFAST</th>
<th>ACRES/CASE</th>
<th>REGISTERED CROPS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hornet</strong>&lt;sup&gt;tm&lt;/sup&gt; Group 3</td>
<td>tebuconazole 432 g/L</td>
<td>fusarium 119 mL/acre, leaf diseases 89 mL/acre</td>
<td>1 hr</td>
<td>fusarium 160, leaf diseases 210</td>
<td>wheat (spring, durum, winter), barley, oats</td>
<td>Apply when environmental conditions warrant and prior to onset of disease. Coverage is crucial.</td>
</tr>
<tr>
<td><strong>Nufarm Propiconazole</strong> Group 3</td>
<td>propiconazole 418 g/L</td>
<td>cereals 60-120 mL/ac., canola 120 mL/ac., soybean 120-185 mL/ac.</td>
<td>1 hr</td>
<td>cereals 160-320, soybeans 106-160, canola 160</td>
<td>barley, wheat (spring, durum, winter), oats, canary seed, corn, canola, bean, soybean</td>
<td>Larger jug size and concentrated formulation deliver more acres/jug</td>
</tr>
<tr>
<td><strong>Quash</strong>&lt;sup&gt;®&lt;/sup&gt; Group 3</td>
<td>metconazole 50%</td>
<td>112 g/ac. for pulses</td>
<td>2 hr</td>
<td>pulses 40</td>
<td>canola, dry beans, field peas, chickpea, lentil, potato, sunflower</td>
<td>For beans, peas, chickpeas and lentils, a second application may be used.</td>
</tr>
</tbody>
</table>

### SEED TREATMENT

<table>
<thead>
<tr>
<th>NUFARM PRODUCT</th>
<th>ACTIVE INGREDIENT</th>
<th>APPLICATION RATE</th>
<th>RAINFAST</th>
<th>BUSHELS/CASE</th>
<th>REGISTERED CROPS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NipsIt SUITE</strong> Group 3 and 4 fungicide, Group 4 insecticide</td>
<td>metconazole 4.62 g/L, metalaxyl 9.24 g/L, clothianidin 30.7 g/L</td>
<td>326 mL/100 kg of seed</td>
<td>N/A</td>
<td>225 bushels of wheat</td>
<td>wheat</td>
<td>Premium all-in-one formulated fungicide/insecticide seed treatment to protect against wireworms, fusarium and other common pathogens</td>
</tr>
<tr>
<td><strong>NipsIt INSIDE</strong> Group 4 insecticide</td>
<td>clothianidin 600 g/L</td>
<td>17-100 mL per 100 kg of seed</td>
<td>N/A</td>
<td>556 bushels at 100 mL per 100 kg of seed, 3,268 bushels at 17 mL per 100 kg seed</td>
<td>canola, mustard, potato, wheat</td>
<td>Insecticide component of NipsIt SUITE available for additional top-up protection under heavy wireworm populations or for early season protection against aphid feeding in wheat. Protection from flea beetles in canola and mustard and wireworm in potato.</td>
</tr>
<tr>
<td><strong>INTEGO™ Solo</strong> Group 22</td>
<td>ethaboxam 383 g/L</td>
<td>19.6 mL/100 kg of seed, 13 mL/100 kg cereals seed</td>
<td>N/A</td>
<td>709 bushels/jug (field peas, lentils, chickpeas), various for other crops</td>
<td>field peas, lentils, chickpeas, cereals, canola, mustard, flax and more</td>
<td>Only option available to protect pulse crops from aphanomyces and phytophthora and pythium in soybeans in Western Canada.</td>
</tr>
</tbody>
</table>

Always read and follow label directions.

Approve™, Assert™, Blackhawk™, Boost®, CleanStart®, Cordon®, CONQUER®, Enforcer®, Estaprop®, Flurox® GoldWing®, KoAct®, Mextrol®, Rival®, Signal®, TriActor® and Trophy® are registered trademarks of Nufarm Agriculture Inc. Bifecta™, DriFast™, Hornet™ and Spike™ are trademarks of Nufarm Agriculture Inc. Credit® is a registered trademark of Nufarm Limited. Curtail™ is a trademark of Dow AgroSciences LLC. Aim™ is a registered trademark of FMC Corporation. INTEGO™ Solo, NipsIt™ SUITE, Valtera™, Engineered to Protect™ and Lock Tight™ Technology are trademarks of Valent U.S.A. LLC. Fierce®, NipsIt INSIDE® and Quash® are registered trademarks of Valent U.S.A. LLC. All other products are trademarks of their respective companies.

58124-1017
GET REWARDED WHEN YOU CHOOSE THE CANOLA SYSTEM DESIGNED FOR REAL LIFE IN THE WEST.

HOW TO QUALIFY

1. Register* at RealFarmRewards.ca, through your local Nufarm rep, retail location or seed rep, or call the Monsanto Rewards Line at 1-844-624-3729.

2. Purchase a minimum of 32 bags of a qualifying brand of Genuity® Roundup Ready® canola and activate the opportunity to earn rewards on qualifying products.

3. Earn rewards by purchasing any of the following products for your farm.*

EARN $1.00-$2.00/ACRE ON TANK-MIX PARTNER PRODUCTS***
- CONQUER®
- BLACKHAWK®
- GOLDWING®
- VALTERA™

EARN $0.10-$0.75/ACRE ON CROP PROTECTION PRODUCTS
- ROUNDUP TRANSORB® HC
- ROUNDUP WEATHERMAX®
- ROUNDUP XTEND®
- XTENDIMAX®

EARN $0.20-$0.60/ACRE ON MONSANTO BIOAG PRODUCTS
- TAGTEAM®
- TAGTEAM® LCO
- OPTIMIZE® ST
- JUMPSTART®
- CELL-TECH®
- QUICKROOTS®

EARN $0.20-$0.60/ACRE ON XTENDIMAX® CHEM
- CHEM

CALCULATE YOUR REWARDS TODAY

Your rewards accumulate with your qualifying-product purchases. The more you buy, the bigger your reward cheque. Additional terms and conditions apply. For full program details, a list of qualifying products, and to calculate your potential rewards, visit RealFarmRewards.ca

*If you registered last year, there's no need to sign-up again. Your registration renews automatically every year. **Monsanto will not issue a cheque for amounts less than $100. ***Payout to a maximum of 2x of Genuity® Roundup Ready® canola acres purchased.

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You’re a professional. You demand the kind of results you can be proud of and that will make your bottom line look even better.

At Nufarm, our focus is agriculture and our commitment is to provide you the best possible service. We’re big enough to provide proven chemistries and practical solutions while being small enough to be agile, innovative and responsive to your needs. Our national and global networks are dedicated to sharing ideas, research and technology in ways that always put you first.

Ask your local retailer for more information.

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