



ADAMA

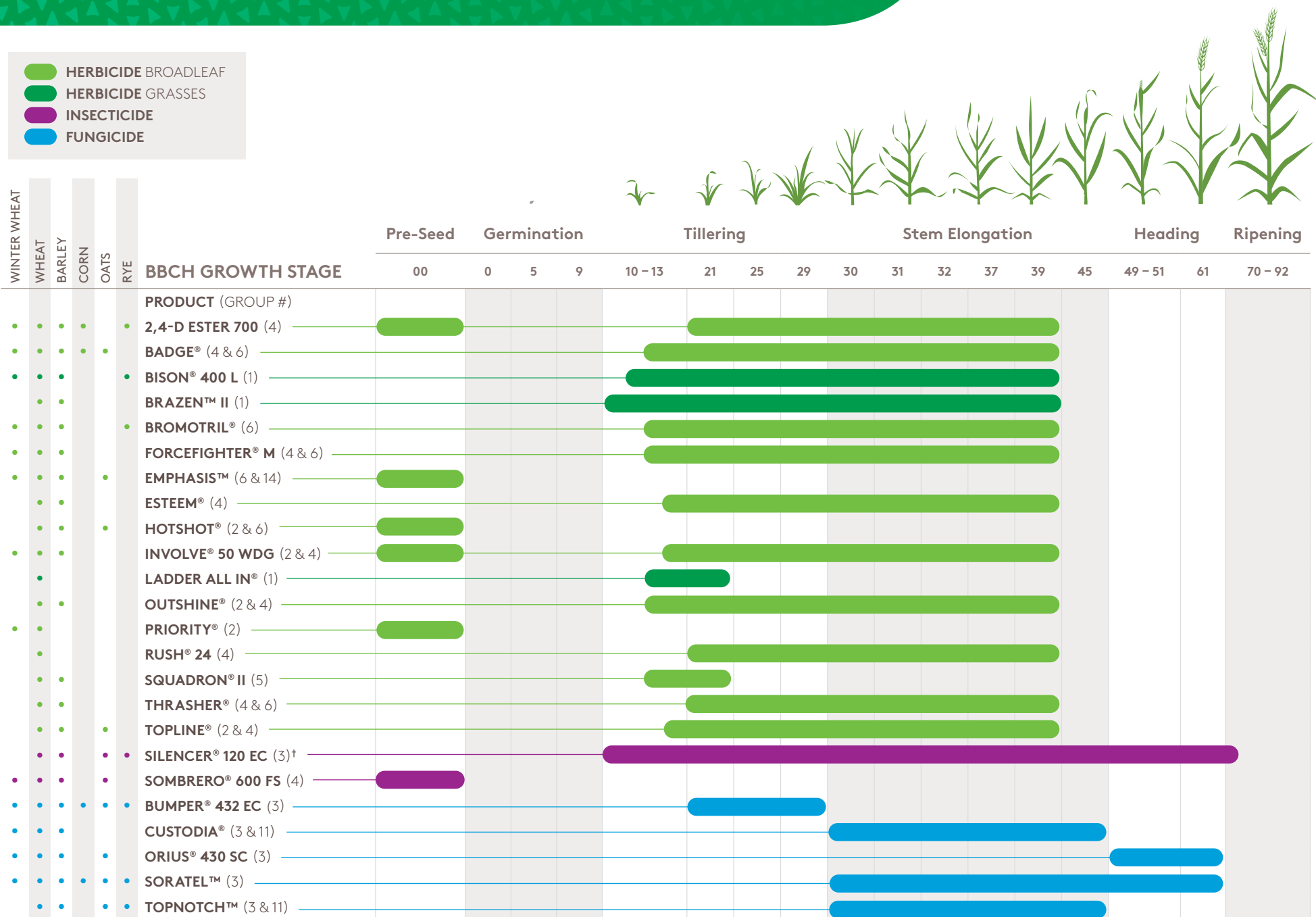
PROTECT YOUR CEREALS

HERBICIDE

INSECTICIDE

FUNGICIDE

CEREALS GROWTH STAGES



Timing based on using the product alone. Please refer to tank-mix partners label for crop timing.

† Dependent on PHI



DECISION MATRIXES – PRE-SEED/POST HARVEST

Growing Cereals; Wheat, Oats, Barley

Fall Application

Pre-seed applied 24 hours before seeding

Pre-emergence



PRIORITY® Group 2

- Best for fall application for control of winter annuals and flush of volunteer canola in the spring
- Pre-seed in the spring is also an option
- Effective against volunteer canola including Roundup Ready®, wild buckwheat, dandelion & narrow-leaved hawk's beard



HOTSHOT® Group 2 & 6

- 2 modes of action to fight herbicide resistance
- Spring application
- HOTSHOT® is the ideal glyphosate tank-mix partner for pre-seed burn-off to control a wide range of annual broadleaf and grassy weeds including Group 2 & 9 resistant kochia, volunteer canola including Roundup Ready®, wild buckwheat, dandelion & narrow-leaved hawk's beard



EMPHASIS™ Group 6 & 14

- 2 modes of action, when mixed with glyphosate third mode is added to fight Group 2 & 9 resistant weeds
- For best results spray in the heat of the day with adequate water
- Fast knockdown, multicrop flexibility and non-residual contact herbicide
- Effective against volunteer canola, kochia and cleavers



INVOLVE® 50 WDG Group 2

- Effective against volunteer canola including Roundup Ready®, wild buckwheat, dandelion & narrow-leaved hawk's beard
 - Can be tank mixed with glyphosate or 2,4-D. Adjuvant required when mixing with glyphosate
 - In Crop – 3 leaf stage to just before flag leaf
 - 24 hours after application – Wheat (S,D,W), spring barley, oats, perennial grasses
- *Can be applied pre-seed in the spring/fall



BROMOTRIL® Group 6

- When tank mixed with glyphosate BROMOTRIL® provides outstanding burn-off control of tough weeds like kochia, buckwheat, cow cockle and Russian thistle
- BROMOTRIL® controls Group 2 & 9 (glyphosate) resistant biotypes
- Non-residual contact herbicide
- Tank mix with glyphosate for pre-seed burndown, adjuvant required



2,4-D Ester 700 Group 4

- Pre-seed and pre-emergence timing flexibility
 - Multicrop flexibility
 - Flexible tank-mix options
 - No residue, no crop rotation restrictions
 - Effective against large list of hard to kill weeds including volunteer canola, kochia, narrow-leaved hawk's beard and dandelion
 - In Crop – 4 – early flag BBCH: 14 – 39
- *Not for use on oats
*Can be applied pre-seed in the spring/fall



HERBICIDE DECISION MATRIX – BROADLEAF

Cereals: Winter wheat, Spring wheat, Durum wheat, Oats

IN CROP 2 – 5 LEAF STAGE
BBCH STAGE: 12 – 21

Group 5 Metribuzin

- Flexible applications for broad spectrum weed control
 - Registered for grassy and broadleaf weed control
- *Not for use on winter wheat, durum wheat, oats



SQUADRON® II

IN CROP 2 – 6 LEAF STAGE
BBCH STAGE: 12 – 21

Group 2 & 4 Florasulam and MCPA ester

- Excellent control on wild buckwheat, cleavers, and chickweed
- *Not for use on winter wheat



TOPLINE®

Group 2 & 4 Florasulam, Fluroxypyr, and MCPA ester

- Controls Group 2 & 9 resistant kochia
 - Provides resistance management and high performance
- *Not for use on winter wheat or oats



OUTSHINE®

IN CROP 2 – EARLY FLAG LEAF STAGE
BBCH STAGE: 12 – 39

Group 4 & 6 Fluroxypyr, Bromoxynil and MCPA ester

- Herbicide resistant weed control
 - Strong on buckwheat and nightflowering catchfly
- *Not for use on oats



BADGE®

Group 4 & 6 Bromoxynil and MCPA ester

- Multi crop flexibility
 - Application flexibility (registered for ground or air application)
 - Gentle on crop
- *Not for use on winter wheat



FORCEFIGHTER® M

Group 6 Bromoxynil

- Can also be used pre-seed
- Controls Group 2 & 9 resistant biotypes
- Application flexibility (registered for ground or air application for wheat and barley)



BROMOTRIL®

IN CROP 3 – EARLY FLAG LEAF STAGE
BBCH STAGE: 13 – 39

Group 4 Fluroxypyr, MCPA ester and Clopyralid

- Provides targeted control of tough broadleaf weeds: dandelion, cleavers, kochia, Canada thistle, wild buckwheat, lamb's quarters, sow thistle
 - Application flexibility (registered for ground or air application)
- *Not for use on winter wheat or oats



ESTEEM®

IN CROP 4 – EARLY FLAG LEAF STAGE
BBCH STAGE: 14 – 39

Group 4 Fluroxypyr and 2,4-D ester

- Flexible recropping and can use at later stages of the crop
 - Control on weeds like kochia, cleavers and wild buckwheat (including Group 2 resistant biotypes), tank-mix flexibility
- *Not for use on winter wheat or oats



RUSH® 24

Group 4 & 6 Bromoxynil and 2,4-D 2 EH ester

- Control on tough broadleaf weeds including Group 2 resistant kochia
 - Application flexibility (registered for ground or air application)
- *Not for use on winter wheat or oats



THRASHER®



HERBICIDE DECISION MATRIX – GRASSY

Cereals: Winter wheat, Spring wheat, Durum wheat, Barley

IN CROP
1 – 6 LEAF STAGE
BBCH STAGE: 13 – 39

Group 1
Clodinafop-propargyl

- Built-in surfactant, no additional surfactant required
- Tank-mix flexibility
- Application flexibility (registered for ground or air application)

* Not for use on winter wheat or barley



LADDER ALL IN®

IN CROP 1 LEAF –
FLAG LEAF STAGE
BBCH STAGE: 13 – 39

Group 1
Tralkoxydim

- Wide window of application
- Excellent control of persian darnel and wild oats
- Application flexibility (registered for ground or air application)



BISON® 400 L

IN CROP 1 LEAF –
FLAG LEAF STAGE
BBCH STAGE: 10 – 39

Group 1
Pinoxaden

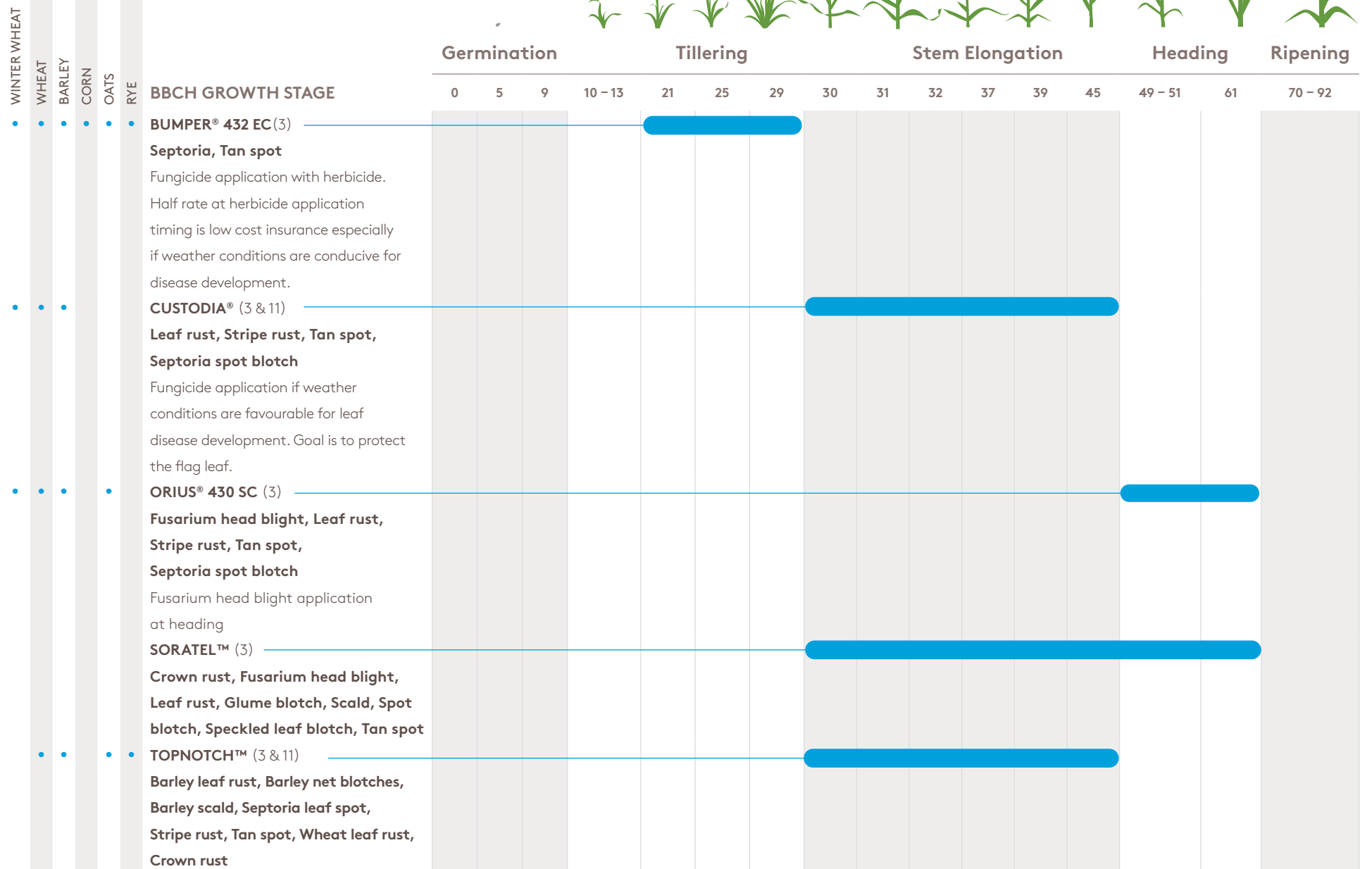
- Works quickly on grassy weeds removing the competition fast
- Multiple tank-mix options for one-pass weed control
- Provides control of wild oats, green foxtail, yellow foxtail, persian darnel, volunteer oats, volunteer canary seed and proso millet

* Not for use on winter wheat and durum wheat



BRAZEN™ II

CEREALS GROWTH STAGES



 FUNGICIDE

BUMPER[®] 432 EC

Broad-spectrum systemic fungicide that protects against yield and quality losses due to leaf disease.



ACTIVE INGREDIENT:

Propiconazole 432 g/L = EC

FUNGICIDE GROUP:

Group 3

APPLICATION RATES AND ACRES TREATED:

- Rate: 60 – 120 ml/ac
- Acres Treated: 40 – 80 ac/jug

PACKAGING:

- Case: 2 x 4.8 L jugs

REGISTERED AND SUPPORTED CROPS:

- Wheat (spring, winter, durum)
- Barley
- Oats

KEY DISEASES CONTROLLED IN CEREALS:

- Net and spot blotches
- Rusts
- Scalds
- Powdery mildew
- Septoria spots and blotches
- Tan spots

HOW IT WORKS:

Broad-spectrum, systemic activity with excellent leaf surface protection and translocation within the plant for additional disease prevention.

WATER VOLUME:

- Ground: Minimum 80 L/ac (20 US gal/ac)
- Aerial: 16 – 20 L/ac (4 – 5 US gal/ac)

CROP ROTATIONS:

No restrictions.

APPLICATION TIMING AND CROP STAGING:

Crop	Diseases	Timing
½ rate at 60 ml/ac		
Barley	Net blotch	Early: Growth stage 12 – 23, as early as the 2-leaf stage.
Wheat	Septoria leaf spot, Tan spot	
Full rate at 120 ml/ac		
Barley	Leaf and stem rust, Septoria leaf spot, Net blotch, Powdery mildew, Scald, Spot blotch	Early: Growth stage 29 – 37, at the first sign of disease, usually at the beginning of stem elongation.
Oats	Crown rust, Septoria leaf blotch	
Wheat	Leaf and stem rust, Powdery mildew, Septoria glume blotch, Septoria leaf spot, Stripe rust, Tan spot	Later: Growth stage 49 – 55, before head is ½ emerged.
Corn	Eye spot, Grey leaf spot, Helminthosporium leaf spot, Northern corn leaf blight, Rusts, Southern corn leaf blight	When disease first appears.

FUNGICIDE

CUSTODIA®

A multi-mode of action fungicide offering preventative and curative protection of the flag leaf against all major leaf diseases in wheat and barley.



ACTIVE INGREDIENTS:

Tebuconazole 200 g/L and Azoxystrobin 120 g/L = SC

FUNGICIDE GROUPS:

Group 3 (Tebuconazole) & Group 11 (Azoxystrobin)

APPLICATION RATES AND ACRES TREATED:

- Rate: 190 – 250 ml/ac
- Acres Treated: 40 – 53 ac/jug

PACKAGING:

- Case: 2 x 10.08 L jugs

REGISTERED AND SUPPORTED CROPS:

- Wheat (spring, durum, winter)
- Barley

KEY DISEASES CONTROLLED IN CEREALS:

- Leaf rust
- Septoria leaf blotch
- Net blotch
- Stem rust
- Tan spot
- Spot blotch
- Stripe rust

HOW IT WORKS:

CUSTODIA® is a broad-spectrum, preventative fungicide with systemic and curative properties recommended for the control of many important plant diseases. CUSTODIA® may be applied as a foliar spray in spray programs or in tank mixes with other crop protection products. All applications must be made according to the use directions that follow.

WATER VOLUME:

- Ground: 40 L/ac or 10 gal/ac
- Aerial: 20 L/ac or 5 gal/ac

CROP ROTATIONS:

No restrictions.

APPLICATION TIMING AND CROP STAGING:

Crop	Diseases	Application Timing	Rate
Wheat (spring, winter, durum)	Leaf rust, Stem rust, Stripe rust, Septoria leaf blotch, Tan spot	Apply CUSTODIA® to leaf foliage at the first sign or very early stage of disease, up to the beginning of heading. Use of the higher rate should be considered when weather conditions are conducive to heavy disease development.	190 – 250 ml/ac
Barley	Net blotch, Spot blotch, Leaf rust, Stem rust, Stripe rust, Septoria leaf blotch, Tan spot	Apply CUSTODIA® to leaf foliage at the first sign or very early stage of disease, up to the beginning of heading. Use of the higher rate should be considered when weather conditions are conducive to heavy disease development.	190 – 250 ml/ac

ORIOUS® 430 SC

Your tool of choice. ORIOUS® 430 SC is a fungicide offering long-lasting, broad-spectrum protection against the most dangerous cereal leaf and head diseases in wheat, barley and oats, and the flexibility of a wider application window.



ACTIVE INGREDIENT:

Tebuconazole 430 g/L = SC

FUNGICIDE GROUP:

Group 3

APPLICATION RATES AND ACRES TREATED:

- Rate: 89 – 118 ml/ac
- Acres Treated: 80 – 100 ac/jug

PACKAGING:

- Case: 2 x 9.44 L jugs

REGISTERED AND SUPPORTED CROPS:

- Wheat (spring, winter, durum)
- Barley
- Oats

KEY DISEASES CONTROLLED IN CEREALS:

- Fusarium head blight (suppression)
- Septoria glume blotch
- Rusts (leaf, stem, stripe)
- Septoria leaf blotch
- Tan spot
- Powdery mildew
- Net blotch
- Spot blotch
- Scald

HOW IT WORKS:

ORIOUS® 430 SC Foliar Fungicide can be applied as a post-emergent treatment in wheat (spring, winter, durum), barley and oats for the suppression of fusarium head blight and control of foliar diseases.

WATER VOLUME:

- Ground: Minimum 40 L/ac (10 gal/ac)
- Aerial: Minimum 20 L/ac (5 gal/ac)

CROP ROTATIONS:

No restrictions.

APPLICATION TIMING AND CROP STAGING:

Crop	Diseases	Application Timing	Rate
Wheat (spring, winter, durum)	For suppression of Fusarium head blight, for control of Septoria glume blotch	For optimum suppression of fusarium head blight and control of septoria glume blotch, apply ORIOUS® 430 SC Foliar Fungicide within the time period from when at least 75% of the wheat heads on the main stem are fully emerged to when 50% of the heads on the main stem are in flower. Spray coverage is essential: Ensure thorough coverage of all wheat heads.	118 ml/ac
	Rusts (leaf, stem, stripe), Septoria (leaf blotch), Tan spot	Apply ORIOUS® 430 SC Foliar Fungicide to leaf foliage at the first sign or very early stage of disease, especially if weather conditions are conducive to disease development, up to the end of the flowering stage. Considered using the higher rate when weather conditions are conducive to heavy disease development.	89 – 118 ml/ac
	Powdery mildew		118 ml/ac
Barley	Net blotch, Spot blotch, Scald, Rusts (leaf, stem and stripe), Septoria leaf blotch, Powdery mildew	Apply ORIOUS® 430 SC Foliar Fungicide at the very early stages of disease development. Consider using the higher rate when weather conditions are conducive to heavy disease development.	89 – 118 ml/ac
Oats	Stem rust, Crown rust	Apply ORIOUS® 430 SC Foliar Fungicide at the very early stages of disease development.	89 ml/ac

NEW

 FUNGICIDE

SORATEL™

Advanced disease protection powered by Asorbital™ Formulation Technology. Offering a flexible application window, SORATEL™ is proven to protect a wide variety of cereals from disease.



ACTIVE INGREDIENT:

Prothioconazole 250 g/L = EC

FUNGICIDE GROUP:

Group 3

APPLICATION RATES AND ACRES TREATED:

- Rate: 160 – 320 ml/ac; standard rate: 240 ml/ac
- Acres Treated: 60 – 120 ac/case; standard rate: 80 ac/case

PACKAGING:

- Case: 2 x 9.6 L jugs

REGISTERED CROPS:

- Barley
- Oats
- Wheat (spring, durum & winter)
- Corn

HOW IT WORKS:

SORATEL™ is a triazolinthione broad-spectrum systemic fungicide with Asorbital™ Formulation Technology. Asorbital™ Formulation Technology enhances penetration and includes a built-in-adjuvant.

KEY DISEASE CONTROLLED IN CEREALS:

- Crown rust
- Leaf rust
- Spot blotch
- Fusarium head blight
- Net blotch
- Tan spot
- Glume blotch
- Scald
- Speckled leaf blotch

WATER VOLUME:

- Ground: Minimum 40 L/ac (10 US gal/ac)
- Air: Minimum 20 L/ac (5 US gal/ac)

REGISTERED AND SUPPORTED TANK MIXES:

Insecticides:

- Coragen®
- Decis®
- SILENCER® 120 EC

MIXING INSTRUCTIONS:

1. Add one-half of the required amount of water to the spray or mixing tank and start agitation.
2. Add the required quantity of SORATEL™ to the water and complete filling with water to the required total volume.
3. Maintain agitation throughout mixing and spraying.

CROP ROTATIONS:

Treated areas may be replanted with any crop specified on the label as soon as practical after the last application. For crops not listed on the label, do not plant back within 30 days of last application.

PRE-HARVEST INTERVAL:

30 days

STORAGE:

To prevent contamination, store this product away from food and feed. Protect from freezing.

 FUNGICIDE

TOPNOTCH™

Broad spectrum, multimode of action
option for control of cereal leaf diseases.



ACTIVE INGREDIENTS:

Azoxystrobin 143 g/L and Propiconazole 124 g/L = SC

FUNGICIDE GROUPS:

Group 3 (Propiconazole) & Group 11 (Azoxystrobin)

APPLICATION RATES AND ACRES TREATED:

Rate: 210 – 620 ml/ac

Acres Treated: 14 – 40 ac/jug

PACKAGING:

Case: 2 x 8.6 L jugs

REGISTERED AND SUPPORTED CROPS:

- Wheat
- Barley
- Oats
- Rye
- Triticale

KEY DISEASES CONTROLLED IN CEREALS:

- Barley leaf rust
- Barley net blotches
- Barley scald
- Septoria leaf spot
- Stripe rust
- Tan spot
- Wheat leaf rust
- Crown rust

HOW IT WORKS:

Used as both a curative and preventative fungicide, TOPNOTCH™ has broad-spectrum, systemic and contact activity.

WATER VOLUME:

- Ground: Minimum 40 L/ac (10 US gal/ac)
- Aerial: 20 L/ac (5 US gal/ac)

CROP ROTATIONS:

Do not plant any other crop intended for food, grazing or any component of animal feed or bedding within 105 days of application.

APPLICATION TIMING AND CROP STAGING:

Crop	Diseases	Application Timing	Rate
Barley	Barley net blotch, Barley scald, Septoria leaf spot, Stripe rust, Barley leaf rust, Tan spot	Apply once between stem elongation and half-head emergence (Growth stage 29 – 55).	210 ml/ac
Oats	Barley net blotch, Crown rust, Septoria leaf spot	Apply once between stem elongation and half-head emergence (Growth stage 29 – 55).	210 ml/ac
Wheat	Septoria leaf spot, Tan spot, Stripe rust, Wheat leaf rust	Apply once between stem elongation and half-head emergence (Growth stage 29 – 55).	210 ml/ac
Durum wheat	Septoria leaf spot, Tan spot, Stripe rust	Apply once between stem elongation and half-head emergence (Growth stage 29 – 55).	210 ml/ac
Rye	Septoria leaf spot, Barley scald, Tan spot	Apply once between stem elongation and half-head emergence (Growth stage 29 – 55).	210 ml/ac

INSECTICIDE

SILENCER[®] 120 EC

Silencer[®] 120 EC controls a wide range of insects in field, tree fruit and horticulture crops.



ACTIVE INGREDIENT:

Lambda-cyhalothrin 120 g/L = EC

INSECTICIDE GROUP:

Group 3

APPLICATION RATES AND ACRES TREATED:

- Rate: 17–51 ml/ac; standard rate: 33 ml/ac
- Acres Treated: 74–220 ac/jug; standard rate: 113 ac/jug
- Standard rate is applicable for most pests, refer to label for more information.

PACKAGING:

- Case: 4 × 3.785 L jug/case

REGISTERED CEREAL CROPS:

- Wheat
- Barley
- Oats

PESTS CONTROLLED:

Grasshoppers:

- 25–33 ml/ac—ground or aerial application
- 33 ml/ac aerial application
- Apply at the low rate when they are in the 3rd nymphal stage (1 cm in length) or when numbers are low. Apply at the high rate when they are larger up to but not including winged adults (2.5 cm in length) or when the numbers are high.

Armyworm:

- 33 ml/ac ground or aerial application
- Spray no later than when first feeding damage is seen on foliage.

HOW IT WORKS:

Fast-acting stomach and contact insecticide.

APPLICATION TIMING AND CROP STAGING:

The need and timing of an application should be based on the presence of pests at vulnerable developmental stages and significant populations, as determined by local monitoring. Consult the label for specific crop and insect timing.

WATER VOLUME:

- Ground: 40–80 L/ac (10–20 US gal/ac)
- Aerial: 4–16 L/ac (1–4 US gal/ac)

RAINFASTNESS:

1 hour

MIXING INSTRUCTIONS:

Confirm compatibility in advance by premixing small proportional quantities of water with SILENCER[®] 120 EC and the tank-mix partner.

GRAZING RESTRICTIONS:

Do not graze livestock within 3 days of application in alfalfa and 14 days of application in wheat, barley, oats and timothy. For silage corn do not apply within 14 days of harvesting for silage. All other registered crops DO NOT graze or harvest treated forage, straw or hay for livestock feed.

STORAGE:

Do not freeze.

INSECTICIDE

SOMBRERO® 600 FS

This seed treatment gives you long-lasting, early season control of tough insect pests – including wireworms and flea beetles – in cereals, oilseeds, soybeans and corn.



ACTIVE INGREDIENT:

Imidacloprid 600 g/L = SC

INSECTICIDE GROUP:

Group 4

APPLICATION RATES AND ACRES TREATED:

- Rate: Please refer to the label for application rates or the table below as these vary based on seed type.
- Acres Treated: Varies

PACKAGING:

- Case: 8 x 1.54 L jugs

REGISTERED CEREAL CROPS:

- Wheat (durum, spring, winter)
- Barley
- Oats

KEY INSECTS CONTROLLED:

- Corn flea beetle
- Wireworms

HOW IT WORKS:

SOMBRERO® 600 FS contains a proven, highly effective seed treatment insecticide that gives you broad-spectrum control of above and below ground pests. Once treated seed is planted, the active ingredient in SOMBRERO® 600 FS is released and forms a protective barrier around the seed. As the plant grows, systemic action transports SOMBRERO® 600 FS throughout the developing stem and leaves, ensuring lasting insect control and giving the crop the defense to grow to its potential.

WATER VOLUME:

Dilute in sufficient liquid to achieve uniform coverage on the seed.

APPLICATION RATES:

A colourant MUST be added in accordance with the PCP Act and the Seeds Act Regulations.

Crop	Insect	Rate	Application Information
Wheat (durum, spring, winter), Barley, Oats	Wireworms	17 – 50 ml/ 100 kg seed	Dilute in sufficient liquid to achieve uniform coverage on the seed.



STORAGE:



- Do not store SOMBRERO® 600 FS at low temperatures.
- Prior to and during application, SOMBRERO® 600 FS must be thoroughly agitated to ensure uniform mixing of the product.
- Due to viscosity of the material, it should be kept at 10° C prior to and during application. Do not apply direct heat to container.



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