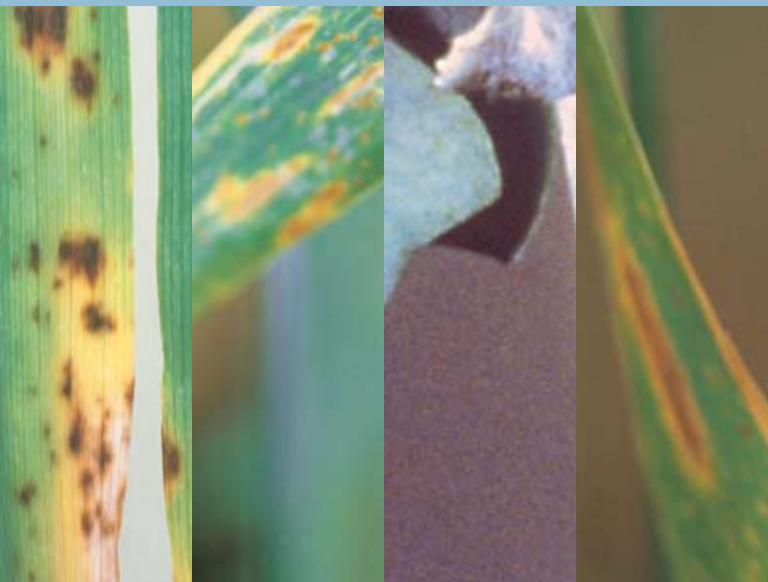




Bayer CropScience

Disease Management Guide



Crop diseases are an ever-present threat in eastern Canada and can cause moderate to severe losses in unprotected crops. Across North America, modest disease pressures today can cause over 20% yield loss in field crops. Over time, losses to diseases have increased due mainly to changing farming practices, including denser plant populations, tighter rotations and higher targeted yields. Disease-causing fungi are also highly adaptable, capable of surviving on seed, in the soil and on crop residue. Some thrive under cold, wet conditions, infecting seed and seedlings to reduce vigor and crop stands. Others flourish under a warm, damp canopy, potentially impacting both yield and quality in a developing crop. Unlike weeds and insects, most disease-causing organisms – mainly fungi – are invisible to the naked eye. It's only after symptoms appear that you can see their effects. If conditions prevent applying a fungicide at the correct time, losses can be substantial. That's why many growers apply fungicides sooner rather than later, taking preventive action to minimize the effects of infection on yields and quality. They know from experience that preventive action maximizes their returns.



Look beyond weeds and insects to maximize return on inputs

There's no denying that weeds compete with crops for inputs, light and moisture, and the economic impact of weed competition has been well documented. You wouldn't hesitate for a moment to apply the appropriate herbicides to control weeds. A clean field not only has potential for yield and profit, it's also a source of pride.

You're no doubt on top of insect control, as well.

You know from experience that reports about insect outbreaks are bad news for corn, cereals and oilseeds. Whether insects attack seedlings, mature crops or somewhere in between, control is critical to protect and maximize yields.

Ironically, today's farming strategies have increased the risk that diseases pose to yield, quality and per-acre returns. For example, low-disturbance tillage practices that preserve organic matter, control erosion and conserve soil moisture also result in higher levels of crop residue – a perfect breeding ground for disease-causing organisms to overwinter.

Similarly, targeting high yields adds to the risk that diseases could flourish. The warm, damp conditions beneath a lush canopy create an ideal environment for diseases to establish and infect healthy crops.

And while any link between markets and crop diseases might seem at first obscure, the relationship is quite simple – tight margins can trigger a decision to accept the risk of tighter rotations. That, in turn, leads to more crop residue, enabling organisms to re-infect subsequent crops.

On occasion, circumstances might work against you, but for the most part, the threat that diseases pose can be anticipated and dealt with effectively.

On the following pages, you'll find information about economically significant crop diseases that could impact your operation's profitability, and solutions from Bayer CropScience that you can use to minimize the threat that these diseases pose to yield, quality and profits.

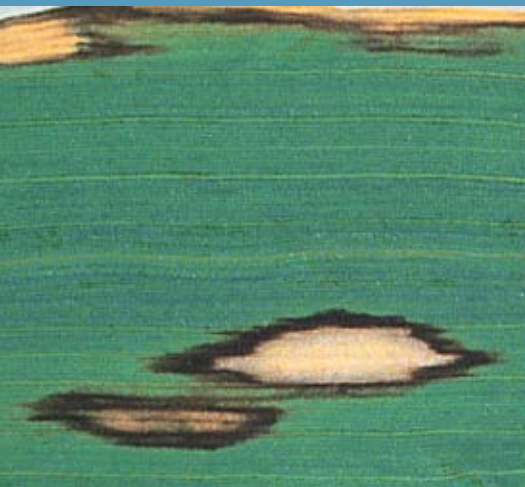
MANY OPERATIONS – POSSIBLY YOUR OWN – SUFFER UNNECESSARY LOSSES. MANY COMMON CROP DISEASES CAN REDUCE YIELDS BY AT LEAST 10% AND, IN SOME SITUATIONS, BY MUCH MORE. YIELD LOSS ISN'T THE ONLY ISSUE; DISEASES CAN ALSO IMPACT QUALITY, WHICH REDUCES VALUE OF YOUR CROPS TO END USERS AND ULTIMATELY THE RETURN TO YOUR BOTTOM LINE.

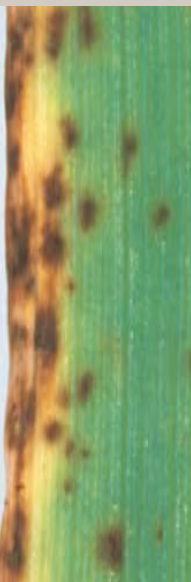
The basics of controlling crop diseases

There are several “risk” factors that can increase the likelihood of infection. Tactics to minimize these risks are tried and true. You’re no doubt familiar with them, but they’re worth repeating:

- **Use healthy seed.** Some diseases overwinter on seed. Certified seed is your best option to avoid this potential source of infection.
- **Seed resistant varieties.** You’ll find comprehensive listings of crop varieties in seed guides that include resistance levels to the economically significant crop diseases in eastern Canada. Check the latest guides for information that is relevant to your area and your farm.
- **Rotate crops.** Proper rotations reduce the buildup of disease organisms that survive on crop residue. Following recommended crop-rotation practices can help to break the disease cycle. If you decide to tighten rotations, stress disease resistance in your choice of varieties.
- **Stay tuned.** Vigilance is one of your most effective strategies. If you’re aware of diseases that might be prevalent in your area, you can take the necessary steps to protect your crops.

- **Protect seedlings.** Yield and quality begin at seeding. Seed treatment is an essential investment to protect your crop from post-seeding conditions that are conducive for disease development. Keep in mind, however, that seed treatments do not fully prevent disease infections at later stages of crop development.
- **Good conditions warrant increased vigilance.** Keep in mind that diseases, like crops, tend to thrive when conditions are ideal for growth. The organisms that cause crop diseases can multiply rapidly in and underneath a lush canopy.
- **Scout for signs of problems.** The sooner you start to scout for symptoms of infection, the better. Watch for disease development on lower leaves. If symptoms appear, select the appropriate product and apply it, following the manufacturer’s recommendations.





Major diseases in canola

Sclerotinia stem rot
Sclerotinia sclerotiorum



Level and severity of *Sclerotinia* infections vary greatly from year to year and even among fields within a region where conditions favour disease development. Infection levels can be as high as 75% in some fields while infection in an adjacent field can be minor. Yield loss depends on many factors, including the percentage of plants infected, crop growth stage when the infection occurs and climatic conditions shortly thereafter.

Canola crops are most susceptible to damage at early flowering because *Sclerotinia* spores must first contact flower parts to develop to the point where they can cause infection. *Sclerotinia* is favoured by moist soil, prolonged periods of precipitation (at least 10 days at or near field capacity) and temperatures of 15° C to 25° C prior to and during flowering.

Symptoms

Symptoms usually develop several weeks after flowering begins and include premature ripening and pale-grey or white lesions on stems, branches and pods. Infected plants are easy to see because they appear straw-coloured, in contrast to healthy green plants. Severely infected crops frequently lodge and shatter at swathing, making harvest difficult and time-consuming.

Control

- All canola varieties are susceptible to *Sclerotinia*.
- A minimum four-year rotation between canola crops is recommended, although rotation alone will not prevent infection. Tighter rotations can be commonplace in canola-growing regions, and that can increase the risk of infection dramatically.
- Registered fungicides must be applied before symptoms appear, usually when a crop is between 20% and 50% bloom, with optimum control usually achieved between 20% and 30% bloom. Do not apply a fungicide if symptoms are evident because it is too late for the fungicide to control the disease.
- Canola growers now have Proline from Bayer CropScience to protect their crops. See the “Products” section for more information.

THE *SCLEROTINIA* FUNGUS CAN SURVIVE
IN THE SOIL FOR UP TO FOUR YEARS.



PROLINE®

Major diseases in canola

Alternaria black spot
Alternaria brassicae
Alternaria raphani
Alternaria alternata



When conditions are right for *Alternaria*, yield losses can range between 20% and 40%. Black spot causes flowers to abort, premature ripening, pod splitting and seed shrinkage. Infections of pods and seeds also increase green seed count and reduce germination.

There are three species of *Alternaria* fungi that cause black spot. These fungi overwinter on infected crop residue, seed and several species of biennial cruciferous weeds such as flixweed and stinkweed. Warm, humid conditions create an ideal environment for formation of spores and infection.

Symptoms

The disease causes spots to develop on leaves, stems and pods. Under moist conditions, spots on leaves are grey; in drier conditions, spots are grey with purplish or black borders, or are entirely black. Leaf spots can also be surrounded by a yellow halo. Severely infected leaves will often die and drop off plants.

Spots on stems and pods begin as brown to black specks. As they enlarge, they become entirely black or dark-coloured with a greyish-white centre. Severely infected pods dry out, shrink and split prematurely.

Control

- Using disease-free seed is an obvious management decision if you suspect that *Alternaria* infected your seed source.
- Seed treatments (such as Prosper®) will protect seedlings against seed-borne *Alternaria* fungi.
- Follow a three-year rotation, although rotation alone will not prevent infection. Tighter rotations are now commonplace in canola-growing regions, and that can increase the risk of infection dramatically.
- In registration trials conducted by Bayer CropScience, Proline demonstrated protection against *Alternaria* – but the product is not registered for control of the disease.* See the “Products” section for more information.

*It is a violation of the Pest Control Act to use this product in a non-registered application.

Major diseases in wheat

Fusarium head blight
Fusarium graminearum

Fusarium head blight (FHB) has for some time now been a very serious disease in eastern Canada. The disease is most often found in wheat, but FHB can also affect barley, oats, rye, corn and some forage grasses.

In wheat, FHB lowers yield and milling quality. In very susceptible cultivars, 50% to 80% of developing spikelets can be damaged or killed before grain filling. Under certain environmental conditions, *Fusarium* may also produce a mycotoxin called deoxynivalenol (DON, a.k.a. vomitoxin), which can cause serious issues if intending to feed grain to livestock.

Infection generally occurs around flowering. Wet conditions and moderately warm weather at this time increase the likelihood of infection.

Symptoms

The earliest and easiest time to see symptoms of FHB occurs soon after flowering at the soft dough stage. Diseased spikelets die prematurely while healthy spikelets remain green. Infected spikelets appear bleached and are often sterile or contain small, shriveled seed. Infected kernels are typically small, shrunken and chalky-white to pink in colour, giving them the common name “tombstones.”

Control

- Consult provincial seed guides to identify the best cultivars. No fully resistant cultivars are available.
- If tillage is an option, bury crop residue to reduce inoculum levels.
- Control barnyard grass and quackgrass because these are alternate hosts.
- Folicur® and Proline are the only registered fungicides for effective protection against FHB in wheat. Proline is the only registered fungicide for protection against FHB in barley. See the “Products” section for more information.

The logo for Folicur, featuring the word "Folicur" in a bold, green, sans-serif font. Below the text is a stylized green leaf graphic that curves under the letters.The logo for Proline, featuring the word "PROLINE" in a bold, red, sans-serif font. To the right of the text is a stylized red and white graphic that resembles a curved line or a drop with a small red sphere at its end.

Major diseases in wheat

Leaf rust
Puccinia recondita



Leaf rusts are the most important diseases of wheat worldwide for several reasons: They can form different strains called races that can attack previously resistant cultivars; being wind-borne, leaf rust spores can travel long distances; and they can also develop rapidly under optimal environmental conditions.

Leaf rust fungi overwinter in the southern U.S. and are blown into Canada early in the year by prevailing winds. The first rust infections are usually observed in June or July and the disease peaks in August. Breeding for rust-resistant cultivars is a very difficult task, and growers cannot assume that a cultivar with a “Good” or “Very Good” resistance rating will be resistant to all potential races.

Symptoms

Leaf rust pustules or lesions are yellowish-red to bright orange. The pustules are largely confined to the leaves. They may also occur on leaf sheaths but do not penetrate the stem. Rust pustules are approximately the size of a pinhead and filled with thousands of orange-red spores that are blown to other plants where they infect more leaves. As plants mature, the pustules darken and will eventually turn black. Orange spore dust sticks to hands, clothes and machinery.

Control

- Resistant cultivars are available, but producers should select cultivars based on the most current leaf-rust ratings.
- Early seeding may reduce disease severity. Losses are greatest on late-seeded crops.
- Folicur, Stratego® and Proline offer wheat growers several options to control leaf rust. See the “Products” section for more information.

Folicur[®]

PROLINE[®]

STRATEGO[®]

Major diseases in wheat

Stripe rust
Puccinia striiformis
Stem rust
Puccinia graminis



Stem rust

Other species of the leaf-rust fungus can also cause stripe rust and stem rust.

Stripe rust affects all types of wheat but is especially infectious in soft white wheat – yield losses as high as 75% have been reported. The disease traditionally has occurred on wheat and barley at higher elevations. Outbreaks of stripe rust in Manitoba indicate there might now be other strains that have adapted to these warmer environments. Heavy infections cause leaf loss and shriveled seed.

Stem rust is still a disease threat. Infected plants generally have fewer tillers than healthy plants, set fewer seeds per head, and yield small shriveled seeds with poor feed value and milling quality.

Like leaf rust, the stripe and stem rust fungi typically overwinter in the U.S. and are blown into the Prairies each growing season. During, mild winters the fungi can survive on winter wheat in parts of Canada.

Control

- Although resistant cultivars are available in some classes of wheat, no spring wheat cultivars carry resistance to stripe rust. Cultivars resistant to stem rust are available.
- Folicur and Stratego are registered for control of all three major types of rust in all types of wheat. See the “Products” section for more information.



Stripe rust

Folicur[®]

STRATEGO[®]

Major diseases in wheat

Tan spot
Pyrenophora tritici-repentis



Depending on the cultivar and severity of infection, tan spot can reduce yields by up to 50%. Tan spot impacts seed viability, as well, and can affect germination, emergence, seedling vigour and uniformity of stands.

The fungus overwinters on infested wheat stubble and straw, as well as some perennial grasses such as quackgrass. Tan spot can infect wheat throughout the growing season, with the most damage being caused when infection occurs before the boot stage.

Symptoms

Lesions are oval to diamond-shaped, and the centres of larger spots become dark brown, often surrounded by a bright yellow halo. Severely infected leaves may die prematurely and fall off.

Control

- Rotations are especially important in reduced tillage and direct seeding systems, and rotating out of cereals for at least three years is recommended.
- If tillage is an option, bury wheat residue.
- Tan spot requires only a few hours of wet, humid conditions to cause infection. Wider row spacing can help to reduce in-crop humidity; manage fertility to avoid excessive growth.
- Foliar fungicides such as Folicur, Stratego and Proline all control tan spot. See the “Products” section for more information.

Folicur[®]

PROLINE[®]

STRATEGO[®]

Major diseases in barley

Scald
Rhynchosporium secalis

Scald can be a very serious problem in barley, especially when cool, wet weather prevails. The disease affects yields and test weight. Yield losses can be particularly severe when barley is cropped continuously. Losses of 50% have been recorded for barley grown after barley.

The fungi overwinter on infected crop residue, weeds, grasses, volunteer barley plants or seed, and can survive up to two years. Under cool moist conditions, fungi resume growth and produce spores that are spread by wind and rain to other leaves and plants. Cool temperatures of 12° C to 14° C and long periods of leaf wetness favour disease development. Early infections are particularly devastating to yields. Yield losses are associated mainly with reduced kernel weight, although if the disease is severe, the number of spikes per plant and kernels per spike may be reduced as well.

Symptoms

Symptoms first appear as grayish-green spots 1.0-1.5 cm long on leaves and sheaths. Oval spots develop rapidly as tissues in the centre of lesions dry out and become bleached, producing light grey or tan- to straw-coloured spots with dark brown margins. The pale central areas of older lesions collapse and fall out. Spots are not contained by veins and often coalesce, destroying the entire leaf. Symptoms similar to those on leaves can also be found on glumes and seed.

Control

- Begin scouting shortly after emergence, as symptoms on seedlings can be observed at that time, and control volunteer barley plants and susceptible weeds to reduce the inoculum level between barley crops.
- Scald-resistant cultivars are available; however, cultivars differ greatly in their resistance levels. In Canada, resistance varies from very poor to good. Malting barley cultivars are generally less resistant to scald than feed barley cultivars.
- Foliar fungicides such as Stratego and Proline provide effective control. See the “Products” section for more information.



PROLINE[®]

STRATEGO[®]

Major diseases in barley

Net blotch
Pyrenophora teres



Net blotch is second only to scald as a cause of yield loss in barley, which can range between 20% and 30%. Net blotch is more common than scald in the warmer, drier regions of Canada.

The disease-causing fungus overwinters on both seed and crop residue. Cooler temperatures (10° C to 15° C) favour seedling infection. High relative humidity and temperatures around 20° C favour spore development and infection during the growing season.

Symptoms

There are both a “net” form and a “spot” form of the net blotch disease. The net form first appears as tiny, light green or brown spots that grow into longitudinal dark brown streaks of dead leaf tissue several centimetres long. Darker longitudinal and horizontal lines may develop within the lesions, giving them a characteristic “netted” or crosshatched appearance.

Some races of the fungus produce small, elliptical brown spots that can be confused with another disease called spot blotch. With both net blotch forms, the lesions may become surrounded by yellow tissue. As the growing season progresses, the lesions can enlarge and join. Much of the leaf area is lost, and the leaves die prematurely.

Control

- Since as much as 80% of the seed in a crop can be infected, using pretreated certified seed is recommended.
- Begin scouting shortly after emergence, as symptoms on seedlings can be observed at that time.
- If tillage is an option, burying residue may delay onset but may not reduce the severity of the disease by the end of the growing season.
- Allow a two-year break between barley crops as a rotation practice, especially if you’re growing a susceptible cultivar.
- The foliar fungicides Stratego and Proline provide effective control. See the “Products” section for more information.



Major diseases in wheat, barley and oats

Septoria/Stagonospora leaf blotch complex



Septoria can infect all small grains, and symptoms may occur at any time during the growth of the plant and on any portion of the plant.

There are three common forms of *Septoria*:

- *Septoria tritici* (wheat, barley) – causes *Septoria tritici* blotch (or speckled leaf blotch, *Septoria* leaf blotch).
- *Stagonospora avenae* (wheat, oats) – causes *Stagonospora* leaf blotch.
- *Stagonospora nodorum* (wheat) – causes *Stagonospora nodorum* blotch (or *Septoria* glume blotch).

Septoria fungi survive on crop residues. The disease characteristically moves upward from infections on the lower leaves. The *Septoria* fungi flourish under high humidity and temperatures between 15° C and 27° C. Severity of leaf blotch and glume blotch infections increase during wet years. Wet, windy weather favours disease outbreaks, while dry weather stops disease development.

Symptoms

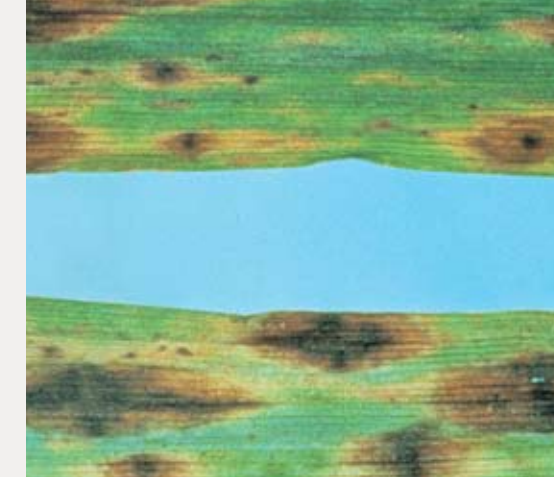
Symptoms of leaf blotch in wheat and barley develop throughout the growing season. Look for light green to yellowish flecks on the lower-most leaves, especially those in contact with the soil. These flecks later

grow into lesions that are reddish-brown to greyish-white to brown in colour. The centres of lesions later die, turning grey or ash-white.

A glume blotch infection is most evident near heading. Lesions on leaves begin as dark brown flecks, sometimes with a yellow halo. Lesions later expand into light brown, oval-shaped spots with dark margins. On the spike, symptoms (grey or brown spots) generally appear on the upper third or tips of glumes between two and three weeks after heading.

Control

- Scout fields prior to flag leaf emergence.
- If tillage is an option, bury crop residue.
- Although no cultivars are resistant to the *Septoria* complex, seeding tolerant cultivars and observing rotational practices can help to control *Septoria* diseases. Crop rotation does not appear to affect *Stagonospora nodorum* blotch but does reduce the incidence of *Septoria tritici* blotch if the rotation includes non-cereal crops.
- Folicur, Stratego and Proline provide several options for control. See the “Products” section for more information.



Folicur[®]

PROLINE[®]

STRATEGO[®]



Bayer CropScience

Products



You can rely on these products to protect yield and quality



Given the opportunity, disease infections can develop rapidly and cause substantial damage. And opportunity abounds most growing seasons. What's good for a crop is generally good for the diseases that attack the leaves, heads and seedpods of cereals, oilseeds and pulses.

The warm moist conditions beneath a lush crop canopy create the ideal breeding ground for organisms, especially fungi, that cause some of the more economically significant crop diseases in eastern Canada.

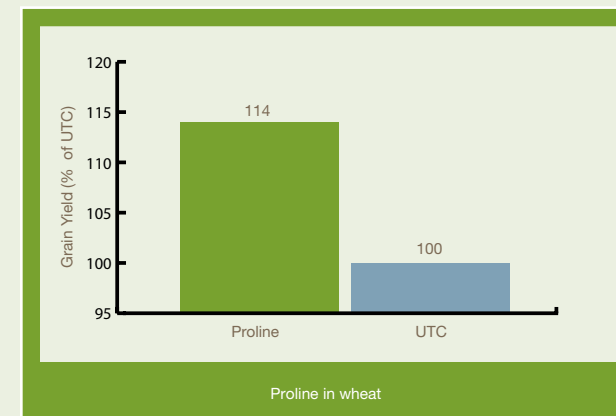
The performance of the fungicides developed by Bayer CropScience is just as impressive as diseases are destructive. Wheat growers in eastern Canada, including Ontario, Quebec and the Maritimes, have come to rely on Folicur to protect crops against *Fusarium* head blight. Meanwhile, Stratego and Proline are now beginning to prove their worth in maximizing yield and quality.

Here's a brief overview of each of these products and how they can help you maximize yield and quality when the diseases mentioned earlier in this brochure, and other diseases, threaten your crops.

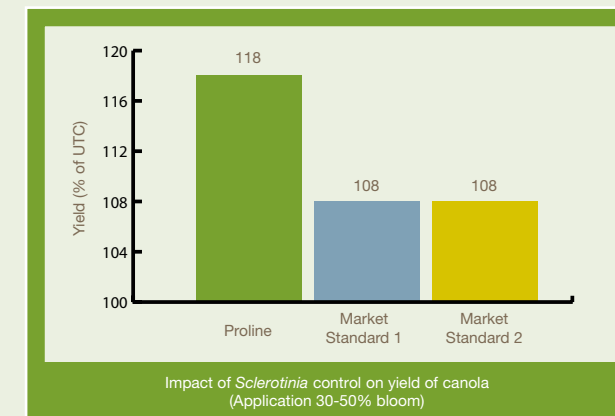


Proline is a new-generation fungicide that provides broad-spectrum control of several diseases in a variety of crops.

Applying Proline to canola between 20% and 50% flowering now delivers the ultimate in protection against *Sclerotinia*. In wheat and barley, Proline provides a new level of protection against *Fusarium* head blight and also controls leaf diseases.



Source: 8 Bayer CropScience Trials (2003, 2004).



Source: 5 Bayer CropScience Trials (2001).

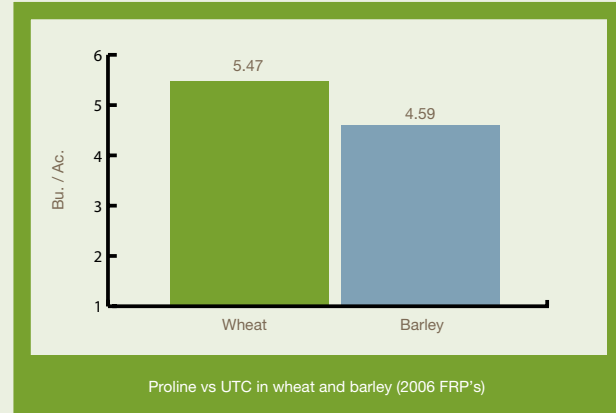
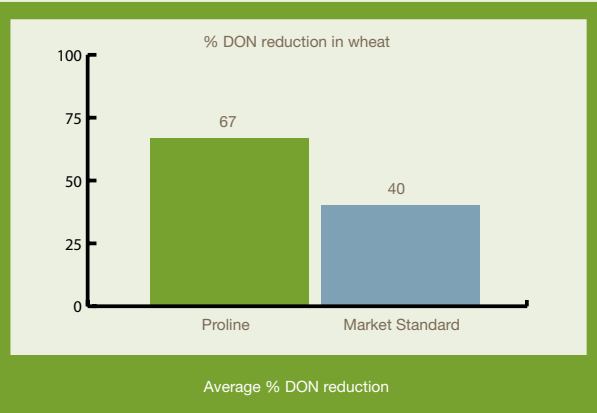
Crops	Diseases Controlled
Canola	<i>Sclerotinia</i>
Cereals – Wheat, Barley	<i>Fusarium</i> head blight, all important leaf diseases

Application Guidelines

In all registered crops the standard rate of Proline is 315 mL/ha or 40 ac./jug.

Disease	Rate (mL/ha)	Rate (ac./jug)	Timing
<i>Sclerotinia</i> stem rot (canola)	315 – 368 mL/ha	40 – 34.2 ac./jug	Apply Proline at 20-50% bloom stage. Best protection will be achieved when Proline is applied prior to petals beginning to fall.
	40 ac./jug is rate recommended for most canola crops. 34.2 ac./jug rate is recommended for fields with history of disease pressure or for dense crop stands.		
<i>Fusarium</i> head blight (wheat & barley)	315 – 420 mL/ha	40 – 30 ac./jug	Barley: Apply Proline between 70-100% head emergence and three days after head emergence. Wheat: Apply Proline when at least 75% of main stem heads are fully emerged to when 50% of the main stem heads are flowering.
	Apply with a non-ionic surfactant (Agral 90 or AgSurf) at 0.125% v/v. Use 30 ac./jug rate in situations where disease pressure is expected to be high.		
Leaf diseases (barley)	210 – 315 mL/ha	60 – 40 ac./jug	Apply Proline when the earliest disease symptoms appear on the leaves and stems.
	Apply with a non-ionic surfactant, such as Agral 90 or AgSurf, at 0.125% v/v.		
Leaf diseases (wheat)	315 mL/ha	40 ac./jug	Apply Proline when the earliest disease symptoms appear on the leaves and stems.
	Apply with a non-ionic surfactant, such as Agral 90 or AgSurf, at 0.125% v/v.		

Note: A maximum of two applications (735 mL/ha) of Proline, with a minimum seven-day application interval, may be applied per barley or wheat crop per year. And applications may be made by ground equipment only.



Source: 6 Bayer CropScience Trials (2003, 2004).

Bloom Stage Guide

20% Bloom



- Usually four to six days after the start of flowering.
- Approximately 15 flowers open on the main stem.
- No signs of petal drop or pod formation will be evident yet.

30% Bloom



- Usually six to eight days after the start of flowering.
- Approximately 18 to 20 flowers open on the main stem.
- No signs of petal drop or pod formation.

50% Bloom

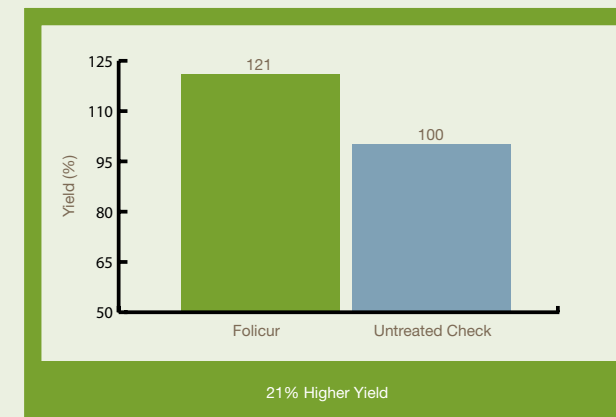


- Usually 10 to 14 days after the start of flowering.
- Approximately 20 flowers or more open on the main stem.
- Some signs of petal drop and/or pod formation will be evident.

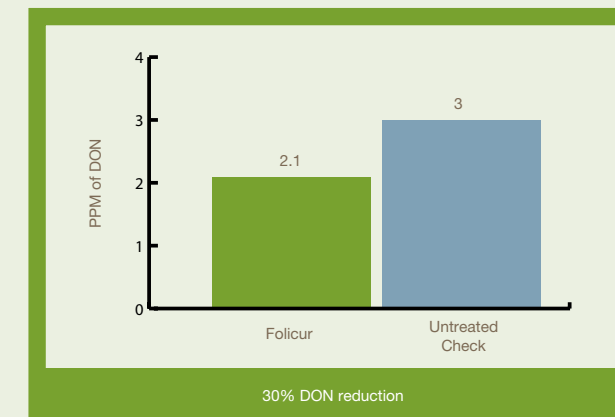


Folicur works systemically, being absorbed by leaf tissue and moving throughout a plant to provide uniform protection regardless of where a disease-causing fungus might attack.

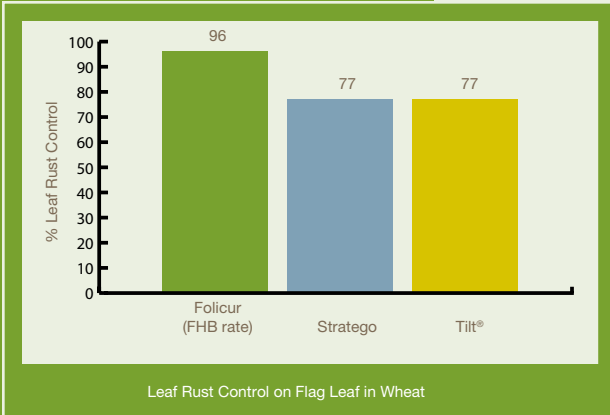
When applied at heading, Folicur provides protection against *Fusarium* head blight taking hold, and reducing both FDK (*Fusarium* damaged kernels) and the mycotoxin, DON.



Source: 32 Bayer CropScience Trials (2004-2005).



Source: 13 Bayer CropScience Trials (2000-2002).



Folicur on Leaf Diseases

Trials have documented Folicur's ability to protect wheat crops against leaf diseases. In more than 100 on-farm trials conducted between 1999 and 2005, wheat treated with Folicur consistently out-yielded untreated wheat.

Source: © Bayer CropScience Trials (2003-2004)

Crops	Diseases Controlled
Wheat (Spring, Durum and Winter)	<i>Fusarium</i> head blight (suppression) <i>Septoria</i> Rusts (leaf, stem and stripe) Tan spot Powdery mildew

Application Guidelines

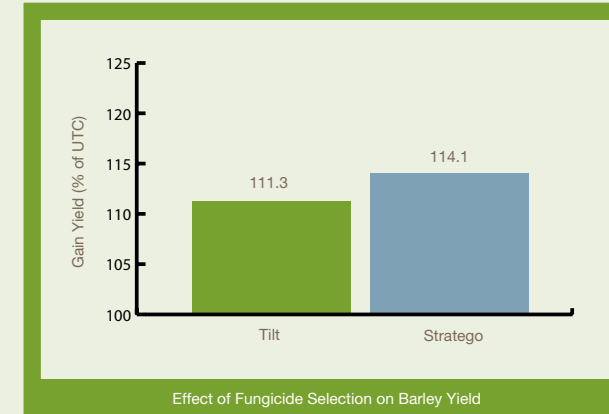
Disease	Rate (mL/ha)	Rate (ac./jug)	Timing
<i>Fusarium</i> head blight and leaf diseases (wheat)	292 mL/ha	80 ac./9.46 L jug 40 ac./4.73 L jug	Apply Folicur when at least 75% of main stem heads are fully emerged to when 50% of the main stem heads are flowering.
	Apply with a non-ionic surfactant (Agral 90 or AgSurf) at 0.125% v/v. Use a minimum of 100 L of water per hectare (10.69 gal./ac.) when applying by ground. For aerial applications, use a minimum of 47 L of water per hectare (4.18 gal./ac.). For optimum suppression, use a minimum of 15 gal./ac. with ground application.		



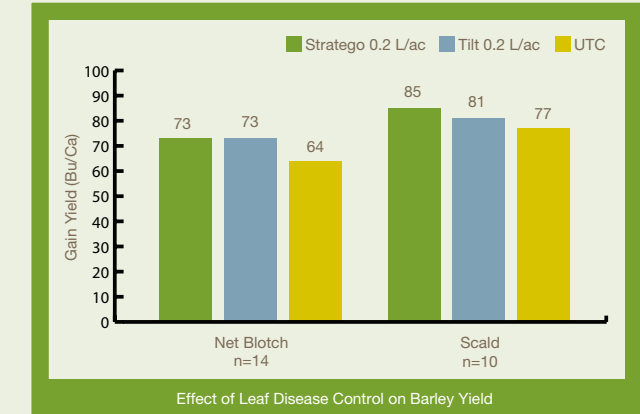
Stratego is the only post-emergent cereal fungicide with two distinct modes of action. Labeled for use on wheat, barley and oats, the active ingredients in Stratego provide preventative and systemic activity. The two modes of action in Stratego also help you manage disease resistance.

And Stratego can now be tank-mixed with Buctril® M in wheat.

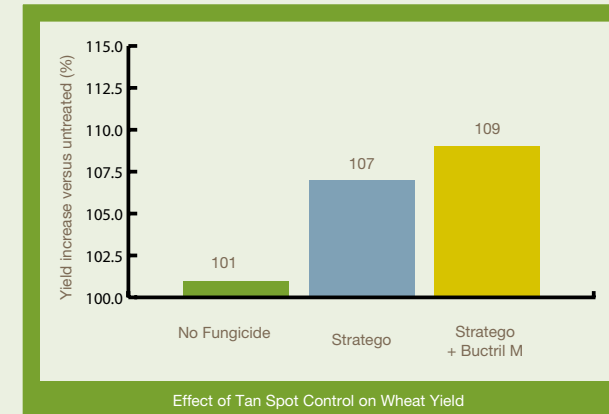
Applying Stratego with Buctril M protects a developing crop against diseases, such as tan spot, that strike earlier in the growing season. Early-season suppression of diseases can reduce the level of inoculum and slow progression of disease.



Source: 14 Bayer CropScience Trials (2004).



Source: 10 Bayer CropScience Trials (1998-2003).



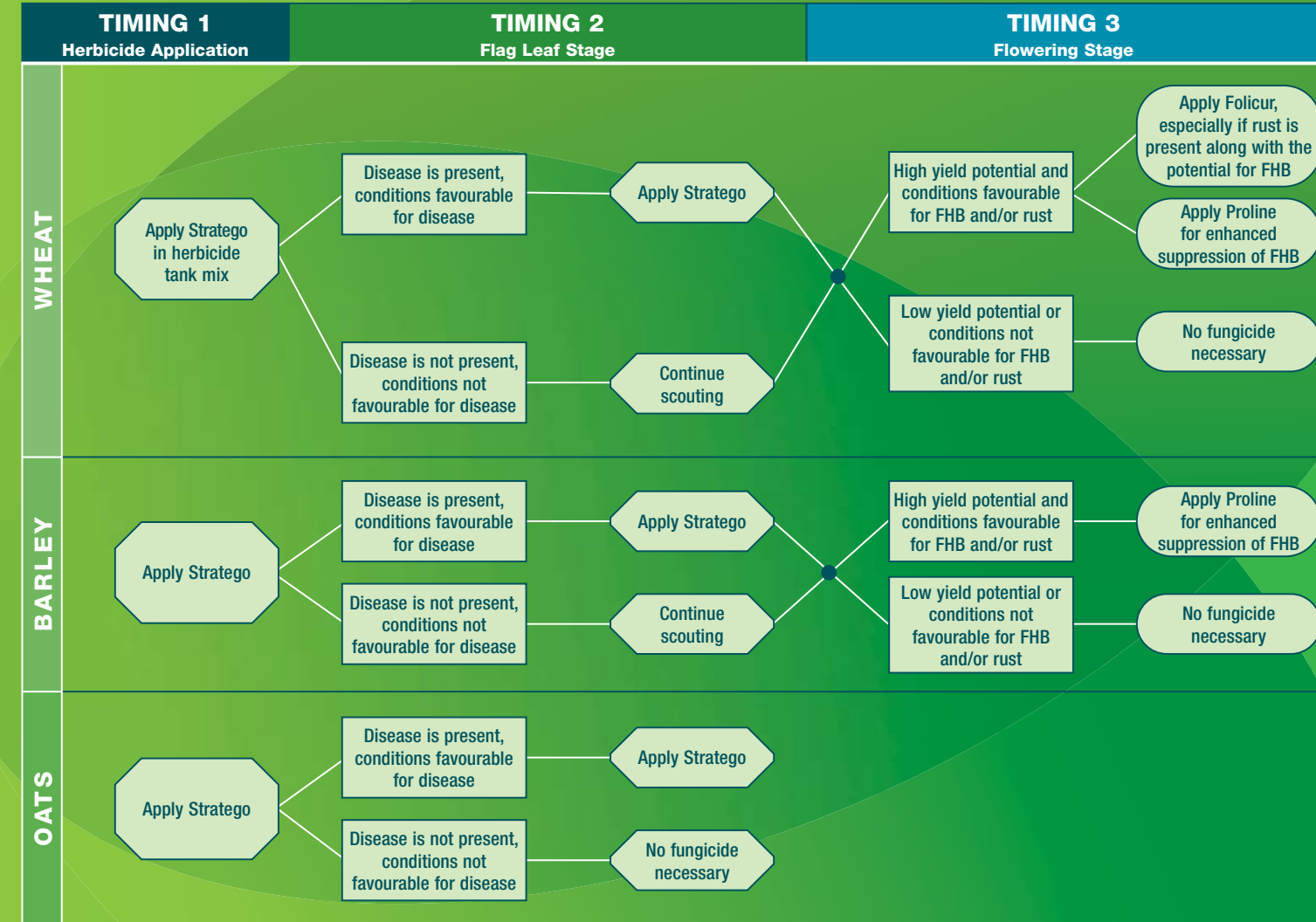
Source: 3 Bayer CropScience Trials (2004).

FUNGICIDE DECISION TREE

Crops	Diseases Controlled
Wheat (Spring, Durum and Winter)	<i>Septoria</i> leaf blotch Rusts (leaf and stem) Tan spot Powdery mildew Stripe rust
Barley	Net blotch Scald <i>Septoria</i> leaf blotch
Oats	<i>Septoria</i> leaf blotch Crown rust

Application Guidelines

Disease	Rate (mL/ha)	Rate (ac./jug)	Timing
Leaf Diseases (Wheat, Barley & Oats)	500 mL/ha	40 ac./8.1 L jug	Apply Stratego at the early stages of disease development, which normally occurs from tillering to early heading. Do not apply Stratego after early heading.
	Up to two applications can be made per season, depending on growing conditions and disease pressures.		



Herbicide tank-mix rates

Tank mix	Product	Rate (per ac.)	Rate (per jug)	Timing
Stratego + Buctril M (wheat)	Stratego	0.2 L/ac.	40 ac./jug	Apply when plants are at the 4-leaf stage up to the early flag-leaf stage.
	Buctril M	0.4 L/ac.	20 ac./jug	
	Tank-mix order: Stratego, Buctril M.			

