CROPTALK

WHAT'S NEW WITH BAYER PRODUCTS

Make soil and root health a priority

Fast and even stand establishment is the goal for every crop you grow, and achieving that largely comes down to seed treatments.

It's not that weather, crop rotation, disease and insect cycles don't have a role to play, but the reality is that disease inoculum and insects are present in most agricultural soils, and the best way to reduce their impact on crops is by using a seed treatment.

This is particularly true for potatoes, which are susceptible to many above and below ground threats during crop emergence such as early blight, root rot, nematodes, early die complex, Colorado potato beetle and aphids to name a few.

To help guard potatoes through the critical early season period, Bayer offers a complete suite of seed treatment and in-furrow applied products.

Velum® Prime nematicide is making big news. It makes yield-robbing nematodes a thing of the past, and offers in-season disease protection to diseases like early blight, which contribute to early die complex in potatoes. It's applied in-furrow at planting with existing in-furrow equipment.

Titan® Emesto® is the number one potato seed-piece treatment used by Canadian potato growers. The unique red formulation is easy to apply and see. It protects against the broadest spectrum of insects plus all major seed-borne diseases, including rhizoctonia and silver scurf. It also provides two modes of action against fusarium, even current resistant strains.

Serenade® SOIL is a biological fungicide aimed at root and soil-borne diseases. Applied in-furrow, Serenade SOIL builds a disease protection zone around the roots that continues to grow with the plant. This means that potato roots stay healthy and productive in the face of pathogens like fusarium, phytophthora, pythium and rhizoctonia, which are the leading cause of many early diseases in potatoes.

Go to **cropscience.bayer.ca** to find out more about Bayer's leading line of potato products – and get more from your crop this year.

PHOTOS: GETTY IMAGES

ILeVO takes on SCN and SDS

More soybean yield is lost to Soybean Cyst Nematode (SCN) than any other pest. Indeed, SCN can cause a 30 per cent yield loss without any visual symptoms to give it away, and has been said to account for more yield loss than the next five soybean diseases combined.

Once established, SCN is permanent. Eggs can survive in the soil for a decade or more, and a single cyst can send up to 500 eggs into the root zone where the microscopic worms penetrate root tissue, change the basic biology of that tissue then feed on it until they burst out as adults to start the cycle again.

The root damage caused by SCN creates entry points for other disease pathogens, most commonly Sudden Death Syndrome (SDS), which is sometimes called a companion disease of SCN but is not actually caused by it. In fact, these diseases thrive in opposite environments: SCN damage is greater in hot, dry conditions, while SDS is more prevalent in cool, wet conditions.

Yield results from a replicated ILeVO soybean split planter trial. A field in Parkhill, ON with heavy SDS & SCN pressure and a very good SDS & SCN variety. Base treatment = 51.3 bu/ac vs. Base + ILeVO treatment = 68.4 bu/ac. Resulting in a 17.1 bu increase.

What they do have in common is rapid spread and they're both difficult to identify. For soybean growers across Canada, the question is not if SCN and SDS are in their fields, but when. So what can you do?

While planting resistant varieties helps, it has not been enough in affected areas. Protect your soybeans with ILeVO™. It is the first and only seed treatment registered with activity against SDS, and it is the only seed treatment registered to protect against SDS and SCN.

ILeVO moves systemically to protect seeds, roots and shoots so your crops have a strong start. In field trials conducted on both sides of the border ILeVO has shown:

- **3.6 bu/ac yield benefit** over the base treatment in areas with known SCN pressure (Ontario 2015-16 trials);
- **4.7 bu/ac yield benefit** in fields with and without visible SDS symptoms (Canadian and US university trials, 2011 to 2016).

If you're growing soybeans this year, protect your yield with ILeVO.

For more information, consult your local retail or Bayer representative or visit **cropscience.bayer.ca/ILeVO** for more details.

The All New BayerValue Program: **Bigger and Better Than Ever**

BayerValue

With new innovations, more ways to qualify and the largest selection of participating products ever, you've never seen a BayerValue™ program like this. This year we've made it even easier to find the right solutions, improve your yield performance and help get the best possible return on your investment.

BAYERVALUE WEST

Western Canadian growers can save up to 18% on their favourite Bayer products.

NEW TO THE PROGRAM

The BayerValue program still has the same segment rewards you've come to know and love, with more ways to qualify than ever before. Almost all Roundup Ready® canola hybrids qualify, as do the new DEKALB® traits like LibertyLink® and TruFlex™. Additionally, we've added a full suite of Acceleron BioAg™ products to the qualifiers to further increase your rewards.

DON'T FORGET ABOUT THE INCREDIBLE BAYER OFFER

Simply early book 1000 acres or more of high-performing Bayer herbicides by March 15, 2019 and save up to $2/acre. Ask your retailer for details or visit **cropscience.bayer.ca/IBO**.

Learn how to maximize your savings at **cropscience.bayer.ca/BayerValue** or by contacting your local retailer.

Get ahead of pea leaf weevil

If you want a graphic (literally) indication of how fast the pea leaf weevil (PLW) problem is growing in western Canada, look no further than Saskatchewan's PLW maps for 2016 and 2017.

Native to Europe, PLW is definitely making itself comfortable in its new Canadian home. The first PLW sighting was in 2000 in a pea field near Lethbridge, AB. Since then, the insect has rapidly expanded its range north and eastward. PLW is now found in most pulse growing regions of Alberta and the Saskatchewan maps show its eastern edge leaping from Moose Jaw in 2016 to the Manitoba border in 2017.

It's important to note that distribution maps are a snapshot in time, while actual insect levels fluctuate with the season. Still, PLW movement eastward is concerning. "It could have spread across Saskatchewan a lot earlier than these maps indicate," says David Kikkert, crop and campaign marketing manager, soybeans and pulses with Bayer, adding that increased reporting could be, in part, responsible for that massive one-year expansion. "We're not sure we can say it spread quite that fast, but the ability of the pea leaf weevil to expand its range almost at will is a concern to pulse growers across Saskatchewan through to Manitoba."

Overwintered adults emerge in early spring to feed, then either walk or fly (at 17 C or above) to the nearest pea or faba bean field where females deposit 1,000 to 1,500 eggs in the soil near developing plants. Hatched larvae feed on the nitrogen-fixing nodules, and this is when PLW causes the most significant economic damage to crops. "By severely hindering, or outright stopping plants from fixing nitrogen, larvae can lead to decreased plant stands and significant yield loss," says Kikkert.

So, what should you do? Kikkert and the Bayer SeedGrowth™ team have these suggestions.

1. **Seed early.** "Adult pea leaf weevils start emerging from mid-April to mid-May," says Kikkert. "If you can get your crops in before that, you can avoid a lot of potential damage from larvae." Once plants get past the six-node stage, they're big enough to outgrow the damage.
2. **Use agronomic defenses.** As with just about all crop pest problems, proper rotations, IPM and no-till can all help reduce PLW infestations.
3. **Use an insecticidal seed treatment.** If PLW was observed in your region last year, then an insecticide seed treatment on peas and faba beans is your first line of defense against crop damage and loss. "Trilex® EverGol® SHIELD contains three fungicides and an insecticide that's registered to protect against pea leaf weevil in peas and faba beans," says Kikkert. "It will stop larvae from feeding on root nodules, plus it will work against the new generation of adults feeding on leaves."
4. **Trap crops.** Planting trap crops along field edges can help reduce the number of PLW adults entering the field, but keep in mind that adults can fly several kilometres — one of the reasons it's been able to expand its range so quickly.
5. **Scout.** "Look for signs of feeding as soon as the crop emerges," says Kikkert. "Females lay their eggs over a three month period, so you have to keep checking up to the sixth node stage." The economic threshold for spraying is one or more feeding notch on 30 per cent of plants. "At that point, you're really working to limit the number of overwintering adults," says Kikkert. "And you should definitely be using an insecticide seed treatment next year."

Find more information at **cropscience.bayer.ca** or consult your local retailer or Bayer representative.

PHOTO: AAF

2019 is shaping up to be a great year

Pushing the status quo – searching for smarter ways to grow food

As our world continues to face enormous challenges, we believe that agriculture is a big part of the solution. And while we don't have all the answers, our passion for discovery, collaboration and innovative spirit means we'll never stop trying to find them. It is our greatest pleasure to provide our grower partners with new solutions, technologies and the support needed to address your toughest challenges. Here's a look at what's new for Bayer in 2019:

IT TAKES A SYSTEM TO BREAK THE CYCLE

With the movement towards zero till, western Canadian growers have longed for a reliable solution to control foxtail barley in wheat. And now, after 20 years, it's finally here. Introducing the new Olympus® System. Simply tank-mix Olympus with your pre-season Roundup® application and follow in-season with Varro® herbicide. The end is here for foxtail barley.

INFINITY FX IS NO LONGER A CO-PAK AND IS NOW AVAILABLE IN EASTERN CANADA

For the first time cereal growers in Eastern Canada will have access to Infinity® FX, a new tool to help control Canada fleabane and other problem broadleaf weeds. In western Canada, wheat growers who have come to trust Infinity FX to take out their toughest broadleaf weeds including cleavers, kochia, buckwheat and volunteer flax, can now look forward to using the new pre-mixed, co-formulation. That's three different herbicide groups (Group 27 pyrasulfotole, Group 6 bromoxynil, and Group 4 fluroxypyr) in one single solution, ideal for bulk applications.

MORE INNOVATIONS THAN YOU CAN SHAKE A STICK AT

During the 2019 season, we will be onboarding numerous innovative technologies from Monsanto, meaning you'll not only benefit from the full line of trusted Bayer solutions, but also have access to a wide range of established solutions related to this acquisition. We feel this firmly entrenches us as Canada's premier crop protection and solutions provider and remain committed to keeping you informed on the progress of our integration.

If you have any questions or concerns, please feel free to reach out to any Bayer representative or call our Customer Care Centre at **1-888-283-6847**

PHOTO: ISTOCK IMAGES

The underground war against crop disease

Wet, dry, warm or cool seed- and soil-borne diseases can always find a comfortable home in your crops. And since the pathogens that cause early season disease are always present in the soil and sometimes on seed, it simply makes sense to take the fight to them before they can take it to you.

That starts with testing your seed for the presence of disease before you plant. "It's important to know what, if anything, is on the seed so you can properly manage for it," says James Humphris, Crop Manager, Cereals, with Bayer. "Harvest conditions in a lot of areas were less than ideal last year, so there's a good chance that this year's seed supply is going to have some challenges, particularly farm-saved seed, so testing will be really important this year."

Disease pathogens like Fusarium spp., *Pythium* spp. and *Rhizoctonia* spp. exist in all prairie soils. "The levels of inoculum in any given field depends largely on cropping history," says Humphris. "Having said that, keep in mind that soil pathogens can survive for a long time without any specific crop host to maintain them. They're just waiting for the right conditions to 'come out' so to speak."

It's easy to think those conditions would be cold and wet, but that's not always the case. For example, *Cochliobolus* sativus, the pathogen that causes seedling blight and common root rot in wheat, thrives in warm, dry soil conditions.

"Fungicidal seed treatments are the first line of defense when it comes to seed- and soil-borne diseases," says Humphris. "Everything's happening underground, so without a seed treatment, there aren't a lot of options to control a problem once it gets going."

Early indicators that seed- and/or soil-borne diseases are affecting your crop are brown roots or brown lesions on roots as well as coleoptiles, poor emergence, stand establishment and poor uniformity. "A weak or delayed start usually leads to yield and quality loss," he says. "So it pays to take the long view when it comes to the value of using seed treatments. It's not just about getting your crop out of the ground, it's about keeping your eye on the finish line as well."

Bayer seed treatments are a big part of that. Raxil® PRO offers best-in-class protection from *Fusarium graminearum* and true loose smut. "With three active ingredients, it protects cereals against a broad spectrum of seed- and soil-borne diseases, is easy to use because it has one simple rate, regardless of disease pressure, and is easy to apply," says Humphris.

Similarily, Trilex® EverGol® offers robust early season disease protection for pulse crops. "Trilex EverGol also has three active ingredients that are effective against a wide range of pathogens, including botrytis, pythium and fusarium," Kikkert says. "Where it really stands out is in protection against rhizoctonia and ascochyta."

Kikkert adds Bayer's insecticidal seed treatment, Stress Shield®, can be added to both Raxil PRO and Trilex EverGol for additional protection against early season insects like wireworm.

"Seed treatments are the first step in a season-long effort to get the best possible yield," says Humphris. "Getting that crop out of the ground, healthy and strong, sets the stage for success."

For more information on Raxil PRO and Trilex EverGol, consult your local retailer or Bayer representative or visit **cropscience.bayer.ca/SeedGrowth**

PHOTO: BAYER CROPSCIENCE