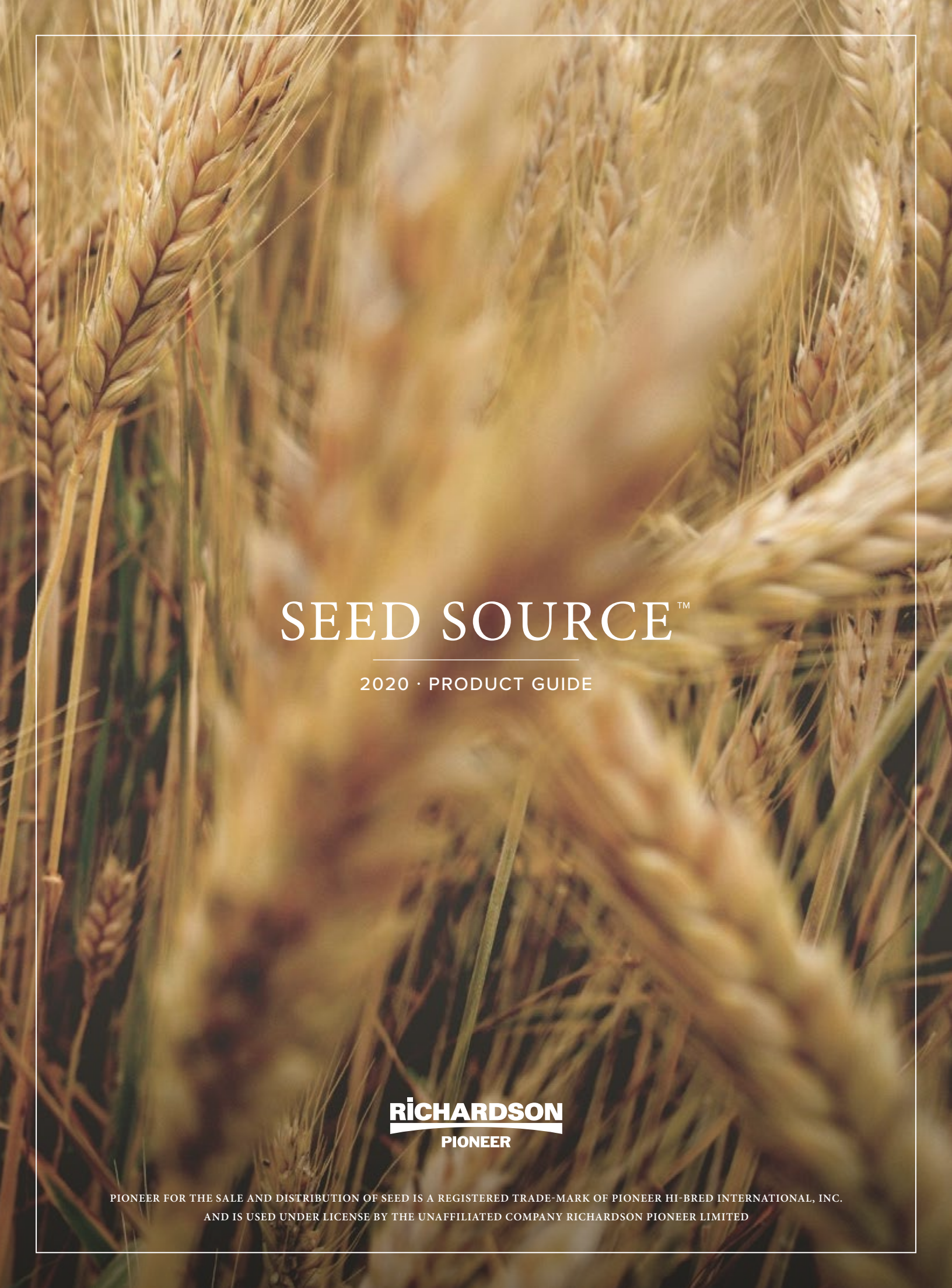


SEED SOURCE™

2020 · PRODUCT GUIDE

RICHARDSON PIONEER

SEED SOURCE™

2020 · PRODUCT GUIDE

WHAT'S NEW:
SEED SOURCE 2020

The one thing that is obvious for 2020 is choice. New products are quickly arriving in the marketplace and are doing so all at once. Not only are these new products innovative but they offer more variety and choice when it comes to genetic traits. This year, providing growers with flexibility and customization in their farming operations are key. Interestingly, InVigor® canola is no longer the only brand participating in the LibertyLink® trait.

More of the Canadian red spring wheat varieties entering the marketplace contain the midge resistance gene, equipping growers with more robust options. Limagrain Cereals Research Canada, a joint-venture between Limagrain and CANTERRA SEEDS, is a new player in the industry and brings advanced wheat genetics to farmers in Western Canada. With regards to soybeans, the choice for herbicide systems is growing and now includes Roundup Ready 2 Xtend® Roundup Ready 2 Yield®, Xtend® and, most recently, Enlist E3™.

As the marketplace becomes more crowded, product decisions become increasingly more difficult. At Richardson Pioneer, we understand that many factors come into play when selecting the right genetics, herbicide systems, disease resistance packages and agronomic traits. That is why we invest in extensive staff training, support our employees with a highly capable agronomy team and use our state-of-the-art research and demonstration farms to gain experience in, and knowledge of, the products we support.

Now, more than ever, the ability to move grains and oilseeds to our facilities and export markets is a benefit to our customers. Richardson has been exporting grain for over 160 years and has developed multi-generational contacts with end use customers around the world. In 2019, Richardson exported grain to over 22 countries and provided the food industry with quality and sophisticated oat and oil-based products.

It takes more than seed, soil and sunshine to grow a successful crop. At Richardson Pioneer, we offer our customers the crop inputs they require throughout the growing season and complement these products with an assortment of digital services. CropMatrix™ supports both Farmers Edge™ and Climate FieldView™ and is compatible with the MyJohnDeere® app. The goal of our digital agriculture offering is not simply to collect copious amounts of data but rather to collect enough important data which may then be used to guide meaningful decision-making. When our customers are fully informed with regards to their farm operations, optimized yield, quality and profitability follow. While many companies want to secure your business, our Richardson Pioneer network is driven to earn your business.

SEED TREATING CAPABILITIES

In recent years, Richardson Pioneer has invested in world class seed treating systems across its business network. Whether it is a complete state-of-the-art piece of equipment supported by six or eight bin systems or a portable STORM™ treater, the goal is ultimately the same: Ensuring grower customers' crops receive their very best start come seeding season.

In the seed treatment world, an optimistic beginning means protecting seed and seedlings from various disease and pest activity. Richardson Pioneer helps growers make informed decisions for their farming operations, assists with product selections and helps ensure optimal plant populations are met. Although canola seed is purchased pre-treated, bulk seed products such as soybeans, lentils, peas, wheat, barley and oats come untreated.

Not only should the seed treatment process be efficient, it should encompass the correct product and should be applied effectively. In order to do this, some planning is required.

1. Determine and confirm the crop variety or varieties for purchase. There are many options available and our employees can provide guidance when evaluating the features of different options. Richardson Pioneer has access to most products in Western Canada, due to a strong network of seed marketers and growers.

2. Determine which seed treatment to apply. Richardson Pioneer agronomists will discuss product options and will provide information related to current issues, seed diseases and pests in different growing geographies.

3. Provide lead time. Certain varieties, often new varieties, may take a short period of time to bring into inventory. In addition, popular varieties may be in short supply.

4. Before the spring seeding season, touch base with your local Richardson Pioneer representative to estimate and schedule a seed pick up time.

STEWARDSHIP

PRE-HARVEST STEWARDSHIP

Agricultural stewardship takes on many forms. One aspect of being a good steward is using crop protection products as per their labels' instructions. Label instructions should not be interpreted as loose guidelines; instructions encompass the key rules and regulations associated with products used in agricultural practice and have been created in conjunction with extensive scientific research. At times, it may be easy to forget certain steps required prior and following crop protection product use and one of these steps includes the pre-harvest interval. The pre-harvest interval period is a defined time between the initial application of crop protection products, such as a desiccant, and the final harvest of the mature crop.

The harvesting season is undeniably busy and it is easy to miss certain steps. When you take the time to reference crop protection product labels, you are practicing good environmental stewardship and can rest assured compliance is met.

MIDGE TOLERANCE STEWARDSHIP

The options for wheat varieties with midge tolerance have never been better. The stewardship agreement for midge tolerant wheat outlines that farm-saved seed may be used only one generation past certified seed. This limitation has been put in place to preserve and protect midge tolerance genetics – visit **midgetolerantwheat.ca** for full details.

Maintaining midge tolerance in the plant population is an undeniably fine balance. Midge tolerant wheat varieties are not packaged homogeneously but are in fact a blend consisting of 90% midge tolerant seed with 10% refuge (i.e. not midge tolerant seed). This is incredibly important as it serves to prolong the longevity of the midge tolerance gene, especially during times of heightened insect activity and pressure. If 100% of seed planted is midge tolerant, there is a chance a small proportion of resistant midge would survive and interbreed, producing progeny that are also resistant. Over the course of a few growing seasons, the entire midge population would have genetic resistance, making the midge tolerance trait in wheat completely ineffective. When a variety that does not include the midge tolerance trait is blended into midge tolerant wheat, breeding patterns in the insect population ensure that resistant individuals are maintained at an insignificant level.

By following the appropriate stewardship protocols, growers are ensuring wheat midge tolerance persists in the plant population and are effectively reducing economic issues related to field loss and damage.

CANOLA STEWARDSHIP

Choice of canola herbicide trait systems continues to evolve for 2020. To ensure canola manufacturers' intellectual property is protected, each grower must understand and adhere to the usage policies for the canola technology they are planting. LibertyLink hybrids require a Liberty and Trait Agreement (LTA), TruFlex™ canola with Roundup Ready Technology and all Roundup Ready® hybrids require a Technology Stewardship Agreement (TSA) and Clearfield® hybrids require a Clearfield Commitment (CC). For clarity on this process or to create a LTA, TSA or CC, please contact your local Richardson Pioneer Ag Business Centre.

DIGITAL AGRICULTURE

The value of data is derived from a combination of factors, the most critical being that the right kind of information is collected – both whole-farm and field-centric – and is done so in an accurate way. When sufficient quantities of quality data are collected, integrated and analyzed, meaningful conclusions may be drawn and value is created. On its own, raw data is not powerful enough to provide the insights growers need to make well-informed farm management decisions. Leveraging the latest advances in artificial intelligence (AI), internet of things (IoT; a system of interrelated computing devices with the ability to transfer data across a digital network), machine learning and predictive modeling allows for thorough processing and conversion of raw quantitative information into actionable insights growers can use to guide enhanced decision-making.

The industry is quickly evolving as more farms are becoming digitized however, the disruption does not stop at agronomics. It has already crossed over into other industry sectors such as insurance and lending and has made data a valuable asset to those who have adopted digital strategies on their farm.

ABOUT FARMERS EDGE™

In 2005, Farmers Edge brought variable rate technology to growers across Western Canada. Today, Farmers Edge is known as a leader in digital agriculture and delivers unprecedented value to stakeholders across the agricultural ecosystem.

Revolutionizing modern agriculture through integrated, AI-driven technologies, Farmers Edge supports growers and agricultural professionals across the globe with the industry's most comprehensive precision digital platform. Combining field-centric, daily satellite imagery, predictive modeling, digital agronomy and advanced analytics, Farmers Edge offers a seamless digital agriculture experience. It has the ability to transform data into actionable insights for informed decision-making and does so with the goal of minimizing environmental impacts and protecting economic viability.

RICHARDSON PIONEER AND FARMERS EDGE PARTNERSHIP STRENGTHENS DIGITAL ECOSYSTEM

With the broad range of crops, equipment, tools and technology on any given farm, growers' needs are unique. Farmers Edge has been actively developing an integrated system that links a wide-ranging network of ag retailers, seed companies, insurance companies and equipment dealers and connects them with Western Canadian growers. The result is a mutually beneficial digital platform that all partners can utilize; growers can access customized products and business channels are better able to serve their customers.

Together, Richardson Pioneer and Farmers Edge merge agribusiness and state-of-the-art digital technology.

By offering crop management and planning tools, Richardson provides growers with a one-stop-shop for addressing their farming needs.

DIGITAL AGRICULTURE USES QUANTITATIVE DATA TO DRIVE QUALITY DECISIONS ON THE FARM BY:

- Creating a digital connection with input providers
- Providing a complete solution for all growers' needs
- Automating field management
- Providing better data for production and management
- Displaying real-time field data for operational decisions
- Providing historical data to evaluate and compare past growing seasons
- Allowing for safe and secure data transfer

Digital agriculture is transforming the way we farm. Data-driven support tools deliver insights into factors that were at one point in time inexplicable. Decisions such as choosing the right equipment, planning nutrient applications and managing disease and pests on crops may now be made with far greater efficiency and certainty.

CANOLA

Seed treatment decisions are important this upcoming year, especially after the heavy pressure inflicted by cutworm and flea beetle activity on last season's crops. Producers are encouraged to review local trial data and speak with Richardson Pioneer representatives about the important features of new hybrids and to create fully customized seeding plans.

INTRODUCTION TO CANOLA

For the 2020 growing season, canola hybrid and herbicide tolerance system choice is unlimited. Stacked LibertyLink and TruFlex canola is available from both BASF®'s InVigor and Bayer®'s DEKALB® brands. Not only has BASF recently launched their 300 Series InVigor hybrids but Bayer and BrettYoung™ will similarly bolster their respective portfolios with the addition of new hybrids. In addition, a new Clearfield canola hybrid from BrettYoung is available.

SUPPLIER	HYBRID	HERBICIDE TRAIT	ATTRIBUTE
BASF We create chemistry / InVigor	InVigor® L345PC *NEW*	LibertyLink®	Pod shatter reduction and 1st generation clubroot resistance*
	InVigor® L352C *NEW*	LibertyLink®	1st generation clubroot resistance*
	InVigor® Choice LR344PC *NEW*	LibertyLink® and TruFlex™	Pod shatter reduction and 1st generation clubroot resistance*
	InVigor® L233P	LibertyLink®	Pod shatter reduction
	InVigor® L234PC	LibertyLink®	Pod shatter reduction and 2nd generation clubroot resistance*
	InVigor® L255PC	LibertyLink®	Pod shatter reduction and 1st generation clubroot resistance*
	InVigor® L241C	LibertyLink®	1st generation clubroot resistance*
	InVigor® L252	LibertyLink®	-
	InVigor® L230	LibertyLink®	-

*To predominant clubroot pathotypes found in Canada at the time of registration. InVigor L345PC, InVigor L352C, InVigor Choice LR344PC, InVigor L255PC and InVigor L241C all share the same clubroot resistance profile. InVigor L234PC has this resistance profile plus it contains 2nd generation multi-genetic clubroot resistance to additional clubroot pathotypes to help combat evolving clubroot pathogens.

BAYER / DEKALB	DKTF 96 SC *NEW*	TruFlex™	Straight cut and multi-genic blackleg resistance
	DKTF 98 CR *NEW*	TruFlex™	Clubroot resistance
	DKLL 82 SC *NEW*	LibertyLink®	Straight cut and multi-genic blackleg resistance
	DKTFLL 21 SC *NEW*	LibertyLink® & TruFlex™	Straight cut and multi-genic blackleg resistance
	DKTF 92 SC	TruFlex™	Straight cut and multi-genic blackleg resistance
	DKTF 94 CR	TruFlex™	Clubroot resistance
	DKLL 81 BL	LibertyLink®	Multi-genic blackleg resistance
	75-65 RR	Roundup Ready®	Straight cut
	75-45 RR	Roundup Ready®	-
	75-42 CR	Roundup Ready®	Clubroot resistance
	74-44 BL	Roundup Ready®	Multi-genic blackleg resistance

SUPPLIER	HYBRID	HERBICIDE TRAIT	ATTRIBUTE
CORTEVA agriscience Agriculture Division of DowDuPont / BREVANT seeds	1026 RR	Roundup Ready®	Multi-genic blackleg resistance and clubroot resistance
	1028 RR	Roundup Ready®	Multi-genic blackleg resistance and clubroot resistance
	2026 CL	Clearfield®	Multi-genic blackleg resistance
	2028 CL	Clearfield®	Multi-genic blackleg resistance and clubroot resistance
BrettYoung	BY 6206TF** *NEW*	TruFlex™	Clubroot resistance
	BY 6204TF** *NEW*	TruFlex™	Multi-genic blackleg resistance and clubroot resistance
	6090 RR	Roundup Ready®	Direct harvest and multi-genic blackleg resistance and clubroot resistance
	6076 CR	Roundup Ready®	Multi-genic blackleg resistance and clubroot resistance and improved tolerance to sclerotinia
	6074 RR	Roundup Ready®	Improved tolerance to sclerotinia
	4187 RR	Roundup Ready®	Multi-genic blackleg resistance and clubroot resistance
	5545 CL	Clearfield®	Direct harvest and multi-genic blackleg resistance
	BY 5105CL *NEW*	Clearfield®	Clubroot resistance

**Pending registration

ALWAYS FOLLOW IRM, WHERE APPLICABLE, GRAIN MARKETING AND ALL OTHER STEWARDSHIP PRACTICES AND PESTICIDE LABEL DIRECTIONS.

CLUBROOT
SUSTAINABILITY & CANOLA PRODUCTION

There is heightened awareness around clubroot due to recent discoveries in Southern Alberta and Saskatchewan. No longer strictly a Central Alberta problem, it can now be found across all three Prairie Provinces and continues to expand its footprint. As Western Canadian farmers prepare to fight clubroot, we look to experiences from the past to guide us in the development of meaningful management plans.

The focus of canola breeders has quite clearly been on a few key targets, one of which is clubroot resistance. Each year, new varieties become available with clubroot resistance tied to other desirable traits. The resulting effect is rapid churn-through hybrids. Hybrids with multi-genic resistance may be the best foot forward in regions with established clubroot, while the assumption is that traditional single gene resistance should withstand pressure in non-traditional clubroot areas. While genetic resistance is a valuable tool in the fight to prevent the spread of clubroot, what breeders had worked hard to create in the past must also be protected.

Let us discuss sustainability, not as it relates to consumer demands, but rather as it relates to maintaining canola in our rotations. It is imperative that rotations are lengthened to one in three years. Research now supports the benefit of this short break, which is entirely realistic and easily manageable when compared to previous recommendations of 10 to 20 years. Extra care and attention must be taken when soil is moved, whether that be on equipment, tires or boots. Fundamental cleanliness will serve to help manage clubroot spread. In non-canola crop years, make sure weed control measures are successfully implemented. Rotation is futile if host weed species are allowed to flourish. What might seem like too high a cost during non-canola years may save in canola yield potential in the future.

If a symptom is observed in the field, do not assume it is something else. Take the time to examine and dig up a plant to evaluate the cause. Prevention is essential where clubroot has not yet been detected. Regardless of the area in which your farm operation is located, be vigilant, be proactive and be forward thinking.

CANOLA SEED
TREATMENT OPTIONS & INVIGOR® RATE

It is hard not to be curious about the newest developments in canola seed treating technology. Growers face challenges every growing cycle, from shifting pest populations to the introduction of new product chemistries. To complicate the situation, each seed company may be aligned with different seed treatment suppliers, making seed treatment options dependent on hybrid selection.

First and foremost, grower decisions should be driven by hybrid choice. Once a hybrid has been determined, seed treatment options should be thoroughly explored. If cutworms need to be addressed, treatment options could be either Lumiderm™ or Fortenza® Advanced. These products are designed to target cutworms and are an excellent first line of defense as they contain the active ingredient cyantraniliprole however, keep in mind that subsequent foliar application may be necessary. Fortenza Advanced also contains sulfoxaflor, which is shown to be effective against flea beetles. This increased control is important, especially with regard to the striped flea beetle as it has become an issue across the Prairies in recent years. A slow growing plant is clearly more susceptible to beetles and may still require a foliar insecticide application. The same may be said during times of heightened flea beetle pressure.

Richardson Pioneer agronomists see many fields throughout the summer and are an excellent resource for narrowing down these important product decisions.

There is a great deal of talk around InVigor RATE, the bottom line is that it is a simple way to achieve optimum plant stand with InVigor canola. The target population for optimizing yield across Western Canada is five to seven plants per square foot. In 2020, InVigor bags will contain 4.25 million seeds and will not be packaged on the basis of weight. BASF will be categorizing seed into four ranges – A, B, C and D – and each will have its own seeding rate. Regardless of the seed size, the goal is to have a final outcome of between five to seven plants per square foot. Growers understand that many decisions need to be made during and after seeding. BASF's InVigor RATE will help in achieving one of the most critical goals of the season which is establishing optimal plant stand.

SOYBEANS

There are many tangible benefits to having soybeans in rotation; taking a break from canola might lend to better management of diseases such as clubroot, which has recently expanded out of the traditional area while also adding a nitrogen fixing legume in rotation.

INTRODUCTION TO
SOYBEANS

Soybean acres are experiencing a slide in Western Canada however, this has not deterred the efforts of Richardson Pioneer partners. Growers will have more choice in herbicide traits (Roundup Ready 2 Yield®, Roundup Ready 2 Xtend®, Xtend® and Enlist E3) and varieties available in shorter season geographies. They will also have more options with respect to plant architecture, iron deficiency chlorosis (IDC) ratings and other agronomic and disease tolerance characteristics important to soybean production. Visit your local Richardson Pioneer Ag Business Centre to learn more about our 2020 product offering and to gain perspective on how best to optimize your farm operation.

SUPPLIER	VARIETY	HERBICIDE TRAIT	RELATIVE MATURITY
BrettYoung	Amirani R2 *NEW*	RR2	000.5
	Nocoma R2	RR2	000.8
	Notus R2	RR2	00.1
	Karpo R2	RR2	00.2
	Akras R2	RR2	00.3
	RX Cedo *NEW*	Xtend®	00.3
	Sunna R2X	Xtend®	00.3
	Mani R2X	Xtend®	00.4
	RX Acron *NEW*	Xtend®	00.6
	Renuka R2X *NEW*	Xtend®	00.6
	Vidar R2X	Xtend®	00.8
NK syngenta	S0007-B7X	Xtend®	000.7
	S0009-M2	RR2	000.9
	S003-Z4X* *NEW*	Xtend®	00.3
	S007-Y4	RR2	00.5
	S006-W5	RR2	00.5
	S006-M4X	Xtend®	00.6

*Patent pending
Performance evaluations are based on field observations and public information. Data from multiple locations and years should be evaluated whenever possible. Individual results may vary depending on local growing, soil and weather conditions. Follow grain marketing and all other stewardship directions. Details of these requirements can be found in the Syngenta Stewardship Agreement.

BAYER / DEKALB	DKB0005-44	RR2X**	000.5
	DKB0009-89	Xtend®	000.9
	23-60RY	RR2Y***	00.2
	DKB003-29	Xtend®	00.3
	DKB005-52	Xtend®	00.5
	24-10RY	RR2	00.5
	DKB006-29	Xtend®	00.6
	DKB006-99	Xtend®	00.6
	25-10RY	RR2	00.8

**RR2X= Roundup Ready 2 Xtend®
***RR2Y= Roundup Ready 2 Yield®

SUPPLIER	VARIETY	HERBICIDE TRAIT	RELATIVE MATURITY
NorthStar Genetics	NSC Leroy RR2Y	RR2	000.6
	NSC Watson RR2Y	RR2	000.8
	EXP002E *NEW*	Enlist E3™	00.2
	NSC Redvers RR2X *NEW*	Xtend®	00.2
	NSC Newton RR2X	Xtend®	00.3
	NSC Gladstone RR2Y	RR2	00.3
	NSG Culross RR2X *NEW*	Xtend®	00.5
	NSC Sperling RR2Y	RR2	00.6
	NSC Richer RR2Y	RR2	00.7
	NSC Winkler RR2X *NEW*	Xtend®	00.8
	NSC Jordan RR2Y	RR2	00.9
Legend Seeds Canada	LS TRI8XT	Xtend®	000.8
	LS 001XT	Xtend®	00.1
	LS 001E020 *NEW*	Enlist E3™	00.1
	LS Solaire	RR2	00.2
	LS 003R24N	RR2	00.3
	LS004XT	Xtend®	00.4
	LS Mistral	RR2	00.5
	LS Eclipse	RR2	00.5
	PRO 2525R2	RR2	00.6
	LS 007XT	Xtend®	00.7

ALWAYS FOLLOW IRM, WHERE APPLICABLE, GRAIN MARKETING AND ALL OTHER STEWARDSHIP PRACTICES AND PESTICIDE LABEL DIRECTIONS.

CORN

Richardson Pioneer continues to expand its corn seed lineup, providing the very best in plant genetics to grower customers. Richardson's seed partners are focused on delivering early maturity, high yielding hybrids in the silage, grazing and grain corn segments. Technical knowledge is paramount in selecting the right hybrid and ensuring operational success. Richardson agronomists work with customers to deliver the right fertility packages and necessary crop protection products needed for both pre-emergent and in-crop applications.

INTRODUCTION TO
CORN

Richardson Pioneer offers a diverse corn seed portfolio by working with a number of Western Canadian suppliers including: DEKALB® brand from Bayer, DLF Pickseed Canada, Legend Seeds® and NorthStar Genetics. Over the past three years, Ag Business Centres across the country have participated in significant training and corn trial initiatives which, combined with our suppliers' support, enable us to provide comprehensive information and recommendations around the best hybrids and agronomic practices for local growing conditions.

SUPPLIER	VARIETY	HERBICIDE TRAIT	CORN HEAT UNIT
BAYER	DKC23-17RIB	VT2P RIB Complete	2075
	DKC23-21	RR2	2075
	DKC26-40RIB	VT2P RIB Complete	2150
	DKC27-55RIB	VT2P RIB Complete	2200
DEKALB	DKC29-88 *NEW*	RR2	2275
	DKC29-89RIB	VT2P RIB Complete	2275
	DKC30-07RIB	VT2P RIB Complete	2350
	DKC33-78RIB	VT2P RIB Complete	2400
	DKC32-12RIB	VT2P RIB Complete	2450
	DKC35-88RIB	VT2P RIB Complete	2550
	DKC34-57RIB	VT2P RIB Complete	2575
	DKC37-93RIB	VT2P RIB Complete	2625
	DKC37-85RIB	SS	2650
	DKC38-55RIB	VT2P RIB Complete	2650
	DKC38-03RIB	VT2P RIB Complete	2675

*The RIB designation refers to a RIB Complete® product. Trait technology includes:
- VT2P – VT Double PRO®
- RR2 – Roundup Ready® Corn 2
- SS – SmartStax®

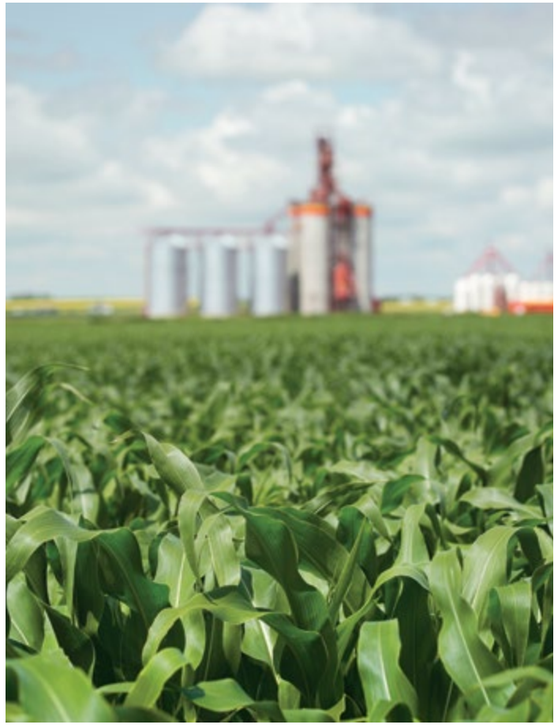
ALWAYS FOLLOW IRM, WHERE APPLICABLE, GRAIN MARKETING AND ALL OTHER STEWARDSHIP PRACTICES AND PESTICIDE LABEL DIRECTIONS.

For these and other hybrids available from DLF Pickseed Canada, Legend Seeds and NorthStar Genetics, contact to your local Richardson Pioneer Ag Business Centre.

DLF PICKSEED SEEDS & SCIENCE

Legend Seeds Canada

NorthStar Genetics

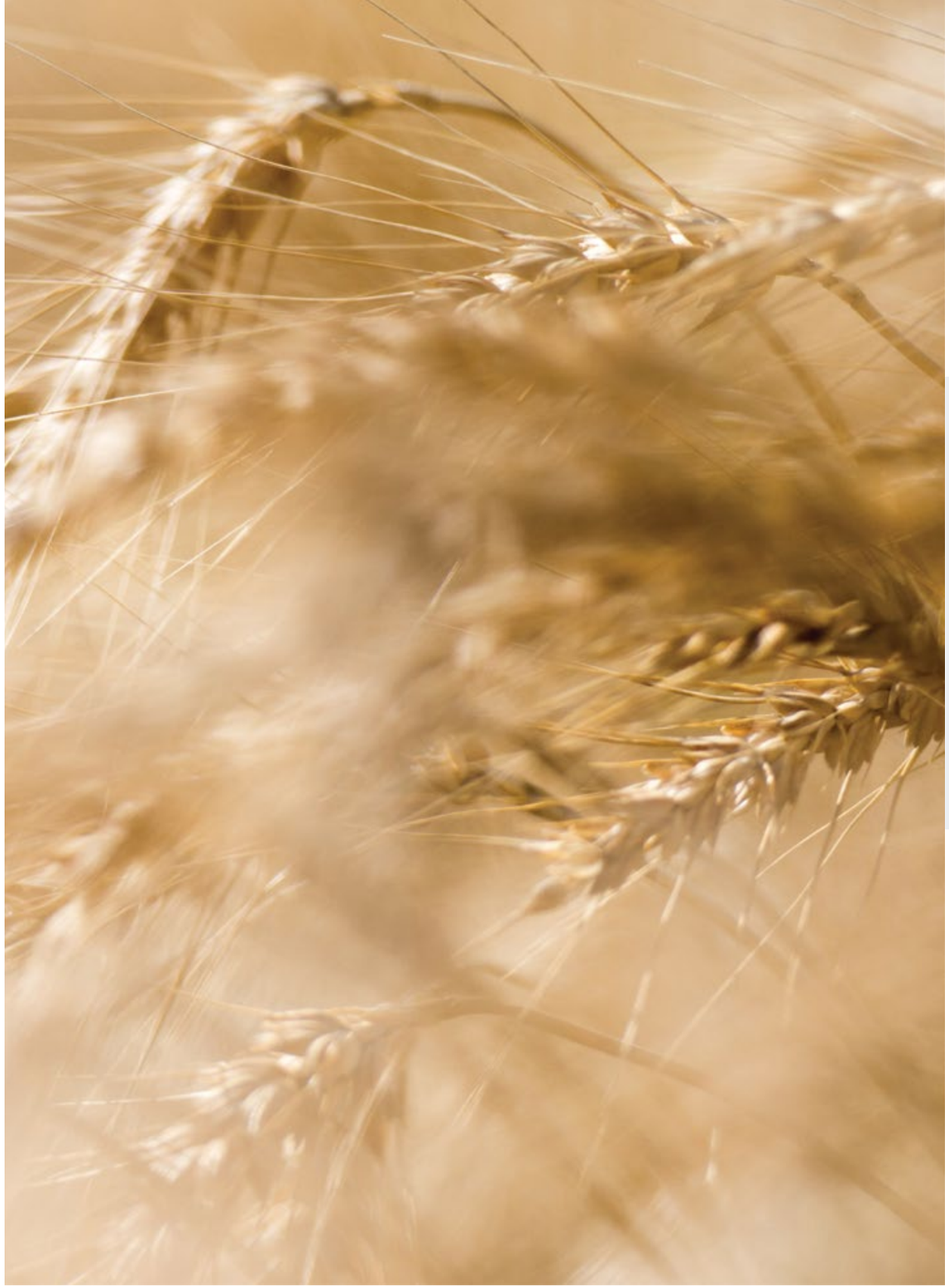


CEREALS & PULSES

Western Canadian wheat is produced with quality in mind and is recognized for its varied processing characteristics. While research in plant breeding has resulted in more variety choice than ever before, and has increased product competition at a global scale, export markets continue to trust the performance and excellence of Canadian grown grains.

INTRODUCTION TO
CEREALS & PULSES

In the recent past, wheat had been designated a rotational crop meaning, it was expected to be grown as a break crop with little return. Through a combination of breeding and improved agronomic practices, most growers are now demanding more from their wheat. Approximately 60 to 80 bushels per acre are new targets and with this yield potential, wheat should be considered a profitable choice. This excitement is not lost on seed developers: BASF's hybrid wheat development initiative is in full swing and is conducted at their breeding farm at Pike Lake, Saskatchewan. In addition, Limagrain Cereals Research Canada is poised to launch it's first product into the Western Canadian marketplace. Richardson Pioneer has access to new and certified wheat, barley, oat and pulse varieties in Western Canada and has invested significantly in providing quality service through a broad network of bulk seed facilities and state-of-the-art seed treaters. Richardson partners with all major cereal and pulse seed providers including SeCan, FP Genetics™, Syngenta®, Seed Depot® and CANTERRA SEEDS.



SUPPLIER

syngenta®

Richardson continues its partnership with Syngenta, offering exclusive wheat varieties to growers across Western Canada. SY Obsidian is optimized for growing regions in northern Saskatchewan and parts of Alberta and is gaining traction among growers. In 2020, Richardson Pioneer will add to its seed portfolio with the launch of SY Gabbro. This variety will have a strong disease package coupled with a high end yield potential and will be well-suited to most growing regions.

SY Obsidian CWRS

REGIONS: NORTHERN SASKATCHEWAN, ALBERTA AND PEACE RIVER

SY Obsidian is short and strong for excellent standability.

- Short straw and very good lodging resistance make for faster and more efficient harvesting and allows for intensive management
- Resistant to leaf rust
- Moderately resistant to stem and stripe rust
- Is 5% higher yielding than AC® Carberry in the black soil zone
- One day earlier than AC Carberry

SY Gabbro CWRS

REGIONS: SOUTHEASTERN SASKATCHEWAN AND MANITOBA. AVAILABLE SPRING 2020

SY Gabbro is a medium height variety but has a robust stand and good straw strength.

- Resistant to leaf rust
- Moderately resistant to fusarium head blight
- Is 5% higher yielding than AC Carberry
- Two days earlier than AC Carberry

*see your provincial seed guides for yield data
Performance evaluations are based on field observations and public information. Data from multiple locations and years should be evaluated whenever possible. Individual results may vary depending on local growing, soil and weather conditions. Follow grain marketing and all other stewardship directions. Details of these requirements can be found in the Syngenta Stewardship Agreement.

Richardson is a proud partner of the U.K.-based bakery, Warburtons.

Richardson continues to contract through the family-owned business on select red spring wheat varieties. This partnership brings preferred varieties and high quality wheat to Warburtons mills across the United Kingdom.

- AAC Brandon
- AAC Cameron VB
- CDC Plentiful
- Prosper

OUR TRUSTED SUPPLIERS

OATS

As one of the world's largest oat millers, Richardson has five oat mills strategically located in the heart of growing regions in Canada, the United States and the United Kingdom. This network, combined with Richardson's strong relationships with oat growers across Western Canada ensures that high quality seed is transformed into high quality, value-added end product. All of our processing facilities employ state-of-the-art technology to make this happen.

Every year, Richardson runs select mill trials on new varieties to evaluate their performance and to ensure producers have access to the very best in seed variety options presenting strong milling characteristics. In the fall of 2019, Richardson will have completed the second year of trials involving ORe3541M and Ore3542M varieties from SeCan. Resultant data is both agronomic and qualitative. Year one presented good results and we are hopeful these varieties will move from "under review" to Richardson's "preferred variety" listing. In early 2020, Richardson will run year one testing on CDC Arborg oats from FP Genetics. Our goal is to complete testing as early as possible in the variety life cycle in order to better evaluate milling characteristics. Richardson farm trials are always carried out over the course of two years – with the appropriate amount of data extracted over that time frame – before a variety is deemed of the correct quality to be moved to a preferred varieties list.

The Richardson Milling recommended variety list is updated regularly. For the most up-to-date list contact your local Richardson Pioneer Ag Business Centre or visit **richardsonpioneer.ca**

RICHARDSON MILLING PREFERRED LIST

- AAC Justice
- AC® Morgan
- AC Pinnacle
- CDC Dancer
- CDC Orrin
- CDC Ruffian
- CDC Weaver
- CS Camden
- AC® Furlong
- Leggett
- Souris
- AC® Summit

INOCULANTS

Richardson Pioneer offers excellent inoculant options to ensure growers pick the right product for maximized nitrogen fixation and higher yielding pulse crops. Richardson supplies trusted brands and provides comprehensive storage and handling guidance, in addition to application techniques for liquid, peat and granular products.

INTRODUCTION TO
INOCULANTS

Biologicals are derived from living organisms and are used to control pests, increase available nutrients in the soil and improve overall crop health. While there are many new products entering the marketplace, Richardson Pioneer continues to align with suppliers who conduct multi-year laboratory research tests and field scale trials to ensure these products boost productivity on growers' farms. Innovative products help improve ROI and supplement or optimize the expression of seed genetics. By working with credible suppliers who conduct the necessary research and with the appropriate quality assurance checks in place, our growers can be confident the products purchased from Richardson Pioneer will provide optimized economic benefits.

OUR TRUSTED SUPPLIERS

NexusBioAg

Jumpstart®, Nitragin® Gold, Optimize® ST, Cell-Tech®, TagTeam® LCO, TagTeam®, QuickRoots®

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We create chemistry

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LALFIX® DUO Spherical Granule, BioBoost®

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RESEARCH & DEVELOPMENT

RICHARDSON
BENNETT FARM

Situated in the heart of the Saskatchewan growing region in the aptly-named community of Richardson, lies Bennett Farm, a state-of-the-art crop development and demonstration farm. Similar to Kelburn Farm, it was established with the goal of furthering research and technological innovation in Canadian agriculture. At over 600-acres, the property is well-positioned for growing crops important to Richardson customers, including wheat, durum, canola, soybeans, peas, lentils, oats and corn.

Bennett Farm is unique to Saskatchewan as it offers partners and employees the resources to stay current and the ability to test and gain key insights into new equipment technologies and digital ag platforms. Valuable industry information may be collected, integrated and then transferred to grower customers to help optimize production processes. More than a site for exploring innovation, Bennett Farm operates as an educational facility, featuring a CropWatch agronomy centre and sizeable meeting space. The latter was recently entitled, “The Bruce Sobkow Centre for Education and Development” and was designed to be a place of learning and collaboration for Richardson employees and its suppliers and partners.

RICHARDSON
KELBURN FARM

Founded in 1943, Kelburn Farm had its beginnings as a stock farm in the Red River Valley of Manitoba and was well-known for raising award-winning Shorthorns. Over the course of time, the site slowly evolved and was fully converted to a grain farm, with all remaining animals sold off the property.

In the spring of 1997, the Red River flood, which at the time was termed “the flood of the century”, caused significant damage to the region. The Red River Valley was submerged in over four feet of water, effectively ending Kelburn Farm’s commercial role. Richardson International was not dissuaded by the challenge of repairing the site but rather saw it as the perfect opportunity for rebuilding and refocusing. It was decided that Kelburn Farm would operate under a new vision, one of learning and collaboration. Richardson planned to create an enduring legacy for the agriculture industry and the people working in it.

Today, Kelburn Farm is recognized as a leading crop development and research facility and functions as a showcase farm for agriculture in Western Canada. Richardson and its partners work closely and together to test innovations in agricultural bioscience, technology and equipment. The site is a prominent education and training centre and aims to demonstrate how modern agricultural practice provides present-day populations with safe and healthy food supplies. A goal of Kelburn Farm is to help shape and inform the next generation of industry professionals and the broader community in general.

RICHARDSON
INNOVATION CENTRE

In April 2018, Richardson International announced plans to invest more than $30 million to develop an innovation centre in the heart of downtown Winnipeg. Construction is now well underway, with a targeted completion date of spring 2020. The building will be home to Richardson Food & Ingredients' product development and marketing teams and will feature state-of-the-art technology and research equipment. The world-class facility will provide an extensive opportunity for industry collaboration and will invigorate the downtown area, serving as a lasting legacy for the Winnipeg community.

"Our goal is that the Richardson Innovation Centre will become a centre for collaboration – as a training facility for our employees and customers and an education centre for food science students and the culinary community," says Chuck Cohen, Richardson's Senior Vice-President, Food, Ingredients and Ag Technology. "As a Winnipeg-based company, we look forward to bringing our customers, suppliers and partners from around the globe to this centre to showcase our products and capabilities and provide them with a rich experience in a very unique setting."

The four-storey, 5,800 square metre (62,000 square feet) facility will house product development suites, an analytical laboratory and a culinary test and demonstration kitchen. To support Richardson's quality assurance and food safety teams, the centre will boast a cutting-edge microbiology lab and an extensive quality analysis area. The culinary region of the centre will provide Richardson food service customers the opportunity to fully experience the broad application of Canadian-sourced foods and ingredients. The strategic positioning of these core departments within the same multi-level space will optimize research and educational activities and will facilitate the efficient development of truly innovative products.

"The process of product development requires a modern platform for testing solutions, troubleshooting issues and exploring new ideas as they relate to market needs and evolving customer taste profiles," says Curt Vossen, Richardson's President and CEO. "In order to test derivatives of existing products or create entirely new product streams, our team's technical capabilities must be backed by the right technical facilities. We anticipate the Innovation Centre will provide them with the technical capacity and resources necessary to meet and exceed customer expectations."

When combined with Richardson's Winnipeg global trading floor, nearby milling facility and Winnipeg-area Richardson Pioneer grain terminals, the Richardson Innovation Centre will provide customers from around the globe the opportunity to see, firsthand and within a single day, the wide scope of Richardson's capabilities. The centre will be a terrific showcase of Canadian food and agriculture products.

Richardson is Canada's leading agribusiness and is recognized as a global leader in agriculture and food processing. The company is a worldwide handler and merchandiser of major Canadian-grown grains and oilseeds and is a vertically-integrated processor and manufacturer of oats and canola-based products. Over the past two decades, Richardson has become a significant player in the global food business, producing a wide variety of food products and ingredients for the retail, foodservice and industrial markets. One of Canada's Best Managed Companies, Richardson is headquartered in Winnipeg with over 2,800 employees worldwide.

OUR LOCATIONS

ALBERTA

Alix	Alix, AB	403.747.3000
Beiseker	Beiseker, AB	403.947.3767
Bigstone	Wetaskiwin, AB	780.352.3362
Bow Island	Bow Island, AB	403.545.2000
Carseland	Carseland, AB	403.934.9267
Dunmore	Dunmore, AB	403.527.6600
Dunvegan	Rycroft, AB	780.765.2270
Fairview	Fairview, AB	780.835.3003
Falher	Falher, AB	780.837.8777
Forestburg	Forestburg, AB	780.583.2476
High Level	High Level, AB	780.926.4421
Hussar	Hussar, AB	403.787.3931
Lacombe East	Lacombe, AB	403.782.9554
La Crete	La Crete, AB	780.928.0096
Lamont	Lamont, AB	780.895.2353
Lavoy	Lavoy, AB	780.658.2408
Legacy Junction	Camrose, AB	780.679.5230
Magrath	Magrath, AB	403.758.3162
Manning	Manning, AB	780.836.2771
Nampa	Nampa, AB	780.322.3737
Nobleford	Nobleford, AB	403.824.3841
Olds	Olds, AB	403.556.3222
Oyen	Oyen, AB	403.664.2620
Provost	Provost, AB	780.753.8415
Sprucefield	Waskatenau, AB	780.358.2720
Standard	Standard, AB	403.644.3707
Stirling	Stirling, AB	403.756.3452
Three Hills	Three Hills, AB	403.443.2548
Vauxhall	Vauxhall, AB	403.654.2155
Vermilion	Vermilion, AB	780.853.6565
Veteran	Veteran, AB	403.575.4600
Vulcan	Vulcan, AB	403.485.6696
Wheatland	Strathmore, AB	403.934.2885

BRITISH COLUMBIA

Dawson Creek	Dawson Creek, BC	250.782.9264

MANITOBA

Brandon	Brandon, MB	204.727.5353
Dauphin	Dauphin, MB	204.622.6030
Dundonald	Westbourne, MB	204.274.2301
Grand Plains	Grandview, MB	204.546.2800
Landmark	Landmark, MB	204.355.4061
Minnedosa	Minnedosa, MB	204.867.5625
Mollard	Brunkild, MB	204.736.5000
Red River South	Letellier, MB	204.737.2096
Shoal Lake	Shoal Lake, MB	204.759.2917
South Lakes	Stonewall, MB	204.694.0825
Starbuck	Starbuck, MB	204.735.2302
Steinbach	Steinbach, MB	204.326.4483
Swan River Valley	Swan River, MB	204.238.4237

SASKATCHEWAN

Antler	Antler, SK	306.452.3605
Assiniboia	Assiniboia, SK	306.642.3612
Balgonie	Balgonie, SK	306.771.2098
Canora	Canora, SK	306.563.5177
Carlton Crossing	Saskatoon, SK	306.933.1750
Carrot River	Carrot River, SK	306.768.2282
Corinne	Corinne, SK	306.732.4484
Coronach	Coronach, SK	306.267.2100
Crooked River	Tisdale, SK	306.873.4030
Davidson	Davidson, SK	306.567.4778
Delisle	Delisle, SK	306.493.1500
Dixon	Humboldt, SK	306.682.1730
Edenwold	Edenwold, SK	306.771.2311
Elrose	Elrose, SK	306.378-2070
Estevan	Estevan, SK	306.634.2342
Foam Lake	Foam Lake, SK	306.272.3344
Grenfell	Grenfell, SK	306.697.3377
Hamlin	North Battleford, SK	306.445.7163
Imperial	Imperial, SK	306.963.2101
Kamsack	Kamsack, SK	306.542.2344
Kelvington	Kelvington, SK	306.327.1122
Kindersley	Kindersley, SK	306.463.3399
Lampman	Lampman, SK	306.487.3121
Langenburg	Langenburg, SK	306.743.2252
Last Mountain	Southey, SK	306.726.2110
Maple Creek	Maple Creek, SK	306.662.2420
Marshall East	Marshall, SK	306.387.6272
Melfort	Melfort, SK	306.752.9073
Melville	Melville, SK	306.728.5742
Nokomis	Nokomis, SK	306.528.4484
Pasqua	Pasqua, SK	306.691.0256
Reed Lake	Herbert, SK	306.784.2286
Regina East	White City, SK	306.781.8900
Saskatoon	Saskatoon, SK	306.249.2200
Shellbrook	Shellbrook, SK	306.747.2464
Simpson	Simpson, SK	306.836.2040
Strasbourg	Strasbourg, SK	306.725.2017
Swift Current	Swift Current, SK	306.778.1616
Unity	Unity, SK	306.228.4555
Wadena	Wadena, SK	306.338.2999
Wakaw	Wakaw, SK	306.233.4213
Weyburn	Weyburn, SK	306.842.6663
Whitewood	Whitewood, SK	306.735.2626
Yorkton	Yorkton, SK	306.782.4484

JOINT VENTURES

Westmor Terminals Inc.	Morinville, AB	780.939.3216
Tri Lake Agri	Killarney, MB	204.523.5380

WITH YOU EVERY STEP OF THE WAY

At Richardson Pioneer, we know that choosing the right product is only part of your success. We're here to help you increase your yields profitably with expert agronomic advice and fully integrated service. From crop planning to grain marketing, we're with you every step of the way.

Contact your local Richardson Pioneer Ag Business Centre for more information.

richardson.ca

RICHARDSON PIONEER


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