THE CUTTING EDGE

WINTER 2019
Canadian Edition



The three field shots above were all taken September 28th, 2019 in the same farming area.

WHEN DO YOU WANT YOUR CROP TO EMERGE?

pages 2-3

BOURGAULT
PURSUING PERFECTION

IN THIS ISSUE:

PRESIDENT'S MESSAGE *by Gerry Bourgault, P. Eng.*

WHEN DO YOU WANT YOUR CROP TO EMERGE – SHORTLY AFTER YOU SEED IT OR AFTER IT RAINS?

As we saw in many areas in the Western Prairies this spring, even in the areas that had good subsoil moisture, the surface dried out quickly due to high winds and many canola crops did not emerge until after the rain fell in mid-June.

Fortunately, this year, other than in a few areas, a killing frost did not occur until September 28th. This allowed the crops that only emerged in June time to mature. Had frost occurred, as Drew Learner of World Weather® had initially predicted as a real possibility at the end of August and again two weeks later, many of the canola crops that yielded and graded well would not have fared well at all. Unfortunately, however, some of those late emerging crops are still in the fields.

The crucial item that is required for germination is moisture. Although seeds also need heat and oxygen in order to germinate and establish, no crop can emerge without moisture. However, there are many other factors that can impede germination and prevent the crop from establishing or cause high levels of seedling mortality such as: chemical residue, fertilizer toxicity, flea beetles, cutworms and a spring frost just to name some common factors. This year, even with millions of acres emerging poorly in the spring, in the areas where the crop was harvested, the overall yields were good as was crop quality. However, had the rainfall been delayed another 10 days and the frost two weeks earlier, the outcome would have been radically different on many farms.

On September 28th, the day of the first killing frost, I took the photographs below in the same farming area. Which situation would you like to have?

All photos were taken September 28th, 2019 in the same farming area

Which of these crops emerged and established shortly after the crop was seeded and which of these crops only emerged after rain fell in mid June? Which crop would you have preferred? Which crop will only be harvested next spring? The answers to these questions are obvious; however, the answer to obtaining good emergence each year is not.

This year, in some areas, there were no penalties from not obtaining emergence shortly after seeding, but in other areas, the penalties were harsh. Generally, spring harvests of canola produces about 50% of what a fall harvest will produce, with quality usually being negatively impacted.

Although the overriding factor in producing emergence is the skill of the farmer, there are some general principles that one can consider for seeding in a dry year when there are no prospects for rainfall in the foreseeable future, with the small seeds such as canola being the most challenging:

1. Minimize soil disturbance at seeding time (narrow knives are recommended for hoe drills).
2. Seed at a depth that will ensure germination without rainfall occurring – for canola, this generally requires that ½" of moist soil be deposited over top of the seed and sufficient packing; this may entail seeding more than ¾" deep.
3. Minimize the amount of P that you deposit with the seed.
4. Do not deposit N based products in the seed row or near it to prevent salt effect drying of the seed (osmosis) and to prevent seedling mortality due to nitrogen toxicity (ammonia).
5. If practical, divide your fields into topographical zones and adjust your seeding depth accordingly.

This year, in our test plots, the canola plots that emerged the soonest near St. Brieux were seeded 1½" deep. Naturally, they were also the first to mature. As we have seen before in our plots in dry springs, nitrogen deposited near the seed row reduced plant stand by more than 50% and delayed maturity. However, yield results did not vary much given that the crops that emerged poorly, recovered, and matured before the September 28th frost.

This past year, with the exception of the areas where late spring and summer rainfall was very limited, most farmers achieved good yield results even if they obtained poor emergence in the spring. Although the benefits of getting the crop established shortly after seeding were marginal in most areas this year, in some areas, achieving emergence shortly after seeding made the difference between the crop being in the bin or in the field.

Each year, in striving to produce a crop, farmers must face countless threats. To counter or mitigate those threats, they need to perform each operation as best as they can with the tools that they have. At Bourgault, our goal is to provide you with the highest quality, leading edge equipment that can help you make your farm more successful in the face of those threats, so that we can be successful. In this edition of the Cutting Edge, you will be provided with our latest agronomic results that we hope you will find useful along with information on how our equipment can assist you in more effectively managing some of your risks. ■

by Curtis de Gooijer, P.Ag., CCA
Corporate Agronomist

SEEDING OR PLANTING CANOLA: HEAD TO HEAD TRIALS.

Canola seed costs have continuously increased over the years. In an effort to reduce costs, many producers are looking to cut back on seed rate, while still striving for maximum yield. One of the ways thought to accomplish both is by singulating the canola seed. Singulation is the process of metering one seed at a time and delivering it to the ground via an opener. Current technology in air seeders uses volumetric metering, which involves metering from a tank and putting the product into an airstream where it is delivered to the ground via an opener. The seed is not metered or delivered a single seed at a time.

Singulation or planting technology is commonplace in the corn growing regions of the Great Northern Plains because equal spacing within a row of corn is essential to maximize yield. It decreases inter row competition and allows the plant to thrive. In the canola growing regions, there is great interest, but a lack of large scale research pertaining to canola production. In particular, there has been minimal number of large scale trials that put singulation and volumetric seeding head to head, and at different seeding rates.

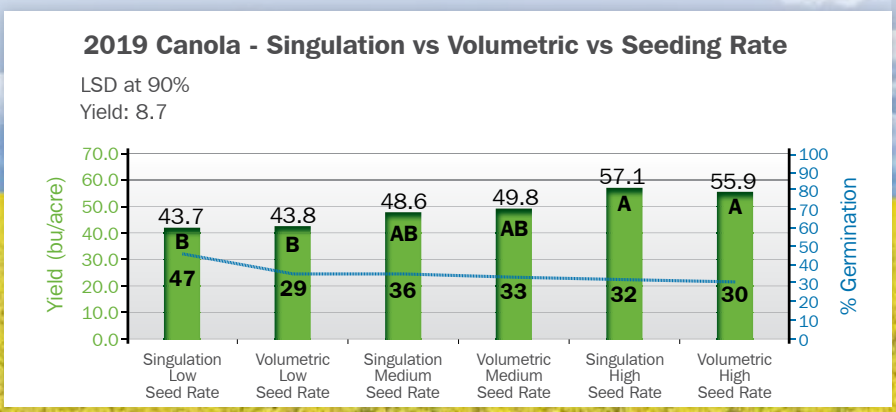
Trial Details

A trial conducted by the Bourgault Agronomy Team, near St. Brieux, Saskatchewan, was designed to compare singulating canola to volumetrically metered canola at three different seeding rates. The volumetric seeding rate was adjusted according to the thousand seed weight (TSW) given on the bag of canola to match the singulation seed rate.

Seeding Rates:
Low Seed Rate – 2 seeds/ft^2 or 1.2 lbs/acre
Medium Seed Rate – 5 seeds/ft^2 or 2.5 lbs/acre
High Seed Rate – 10 seeds/ft^2 or 5 lbs/acre

Seeding Date: May 28th, 2019
Fertilizer: 140-50-15-30

Results

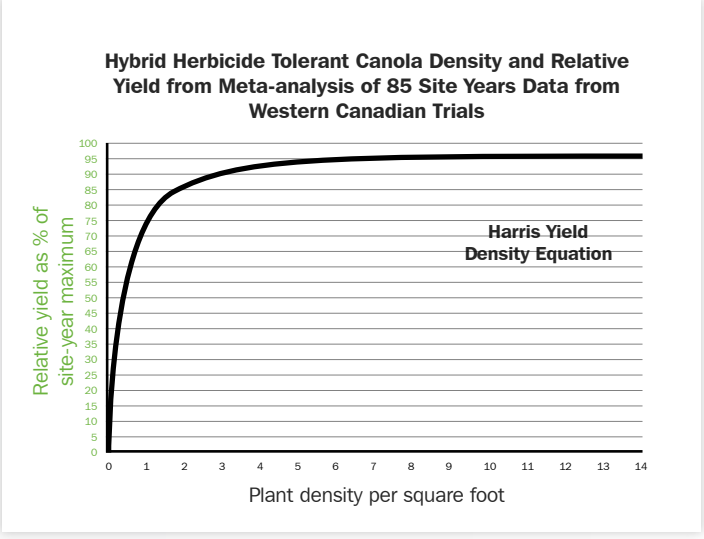


There was a large amount of variation in yield between the reps of the trial, which is why the Least Significant Difference (LSD) is quite high being 8.7 bu/acre for there to be a statistical difference in yield.

The conditions at the time of seeding were very dry and stayed dry for another 2 weeks until a substantial rain event occurred. Also, lab results of the hybrid seed used in this trial were found to have below average germination and vigor. These are major contributors to why we see germination in the neighborhood of 30% in this trial.

Observations

- Emergence results between singulation and volumetric show a trend of higher emergence in the singulated reps, for all of the 3 different seeding rates and especially at the lowest seeding rate.
- Yield results between singulation and volumetric was insignificant, but there were differences between seeding rates. The lowest seeding rate had the lowest yield which was statistically the same as the medium seeding rate, but significantly less than the highest seeding rate. It should also be noted that plant stands in this trial only achieved approximately 3 plants/ft^2. It is possible that yields would have been higher if plant stands of 5 plants/ft^2 or greater were achieved, as indicated in the chart below.



Source: Alberta Agriculture (Murray Hartman)

There are many planters on the market today, with some producers planting canola with them. After digging behind different brands and different conditions one thing has become clear; singulation of canola is very difficult to do. When corn emerges after being sown with a planter utilizing singulation technology, it is very easy to see the "picket fence" where the plants are evenly spaced with minimal skips. Canola seed can be metered very accurately and precisely, but this does not always translate into the same precision by the time it finds its final resting place in the seed row. This could be due to bouncing and/or static electricity in the drop tube.

At this point in the testing, one year and one location, there are more questions than answers. Research will continue into this exciting technology as it pertains to canola production, with a focus on how this can help producers. This also gives insight into what the limitations are, and what reasonable expectations should be set for this new technology. ■

TABLE OF CONTENTS

7000
Series Air Seeders

INNOVATION CONTINUES.

Since the introduction of the model 138 Air Seeder in 1980, Bourgault has established a reputation as ‘thee’ air seeder cart in the marketplace. The relentless pursuit of innovative features and time saving options has contributed to farmers increasing productivity with limited manpower; allowing them to respond quickly to the ever-changing challenges that spring throws their way.

INNOVATIVE OPTIONS OF THE 7000 SERIES AIR SEEDER :

1

I2I

Multi-Implement Field Management System

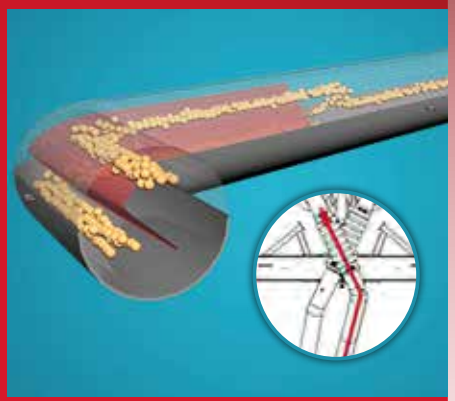
New for the 2020 model year is the I2I (Eye-to-Eye) Multi-Implement Field Management System. This new option allows customers with multiple drills to share field coverage maps between the X35 Apollo monitoring systems. With I2I, the X35s communicate with each other via a Wi-Fi network to synchronize the seeding progress onto a single map. This allows all operators to view which areas of the field have been seeded, to avoid misses and to have one complete coverage map when the field is complete. **With I2I, you see what I see!**

2 Distribution

Producers are applying higher rates of product per acre with wider seeding systems than could have been imagined just a few years ago. In 2019, the EvenStream™ Product distribution system was introduced on 7000 Series Air Seeders. It was designed to improve distribution uniformity when applying high rates of product, particularly when applying urea fertilizer. Performance reports received from the field in 2019 on the effectiveness of theEvenStream™ have been excellent.

EvenStream™ Technology come standard on all new 7000 Series Air Seeders and is available as a retrofit to older 7000 Series Air Seeders.

EVENSTREAM
PRIMARY (ESP)

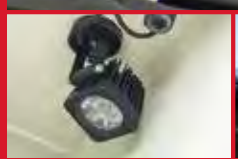


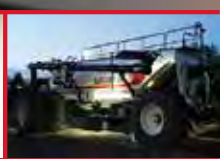
3 Dual Auto Section Control

The very popular Bourgault Auto Section Control option was improved in 2018 to become Dual Auto Section Control. Dual ASC provides separate timing control between the seed and fertilizer lines so that producers can turn the front mounted Mid Row Banders® off and on prior to the seed rows. A healthy seed overlap can be set to ensure no misses and minimal overlap can be set on the MRBs® to avoid lodging at the headlands. With Dual ASC, nitrogen and sulphur can be placed right at the headland, resulting in an extra fertilizer savings. This benefit also applies to NH_3 or liquid fertilizer.

4 See Clearly - Tank Lighting

Sometimes it's the small changes that make a big difference. In 2017, the 7000 Series Air Seeder was upgraded with 7 LED exterior work lights, providing cleaner and brighter lighting with less power draw on the electrical system. In addition, LED in-tank lighting was added to allow the cameras to transmit video in colour. Operators could now see the vivid images from inside the tanks, allowing them to watch as product metered out, right down to the last cup.





(Cont'd on page 9)

Farm World

KEEPING YOU GROWING

Prince Albert
(306) 922-2525

Kinistino
(306) 864-3667

BOURGAULT

LARGEST IN-STOCK PARTS INVENTORY AND SERVICE TEAM IN NORTH CENTRAL SASK

NOW AVAILABLE!
Farm World
HIGH PRECISION
RTK+ Precision Land Management Network

- Highest accuracy PLM network available (sub inch)
- Best repeatability; be within one inch of previous year's paths
- Fast, reliable GPS connection anywhere, anytime
- Quality, reliable local service from in-house PLM specialists

Real per-acre cost savings in all farming tasks!

1998 NEW HOLLAND 9682 TRACTOR

TRANS 12SPD POWERSHIFT, 4 REAR REMOTES
520/42 DUALS, NEW HYD PUMP
NEW STEERING PUMP
7697 HRS

2016 NEW HOLLAND T9.530 TRACTOR

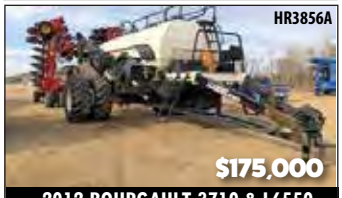
1491 HRS, HYDRAULIC PUMP, HIGH CAPACITY, STANDARD DRAWBAR, NO PTO, TOW CABLE FOR HD TRACTOR, TRUE GROUND SPEED SENSOR, LUXURY CAB, 6 REMOTES WITH PADDLES, 372 WAAS RECIEVER

2015 BOURGAULT 7700

7700 TRAILING W/AUTO SECTIONAL CONTROL
DBL SHOOT W 2 FANS, CONVEYOR
X-30 MONITOR, SADDLE TANK
BULK BOOM, REAR HITCH, WEIGH SCALE

2011 BOURGAULT 3310 & 6700

3310 75" 10" SPACING, DOUBLE SHOOT DRY
MRB'S, V STYLE SEMI-PNEUMATIC PACKERS
3/4" OPENERS, TRAILING, CONVEYOR
3 TANK METERING, X20, DUALS, DUAL SHOOT/FAN



2012 BOURGAULT 3710 & L6550

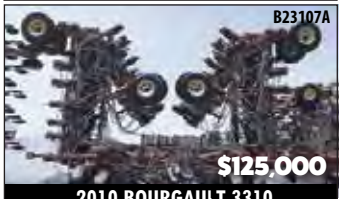
W/L6550 TANK, 60' 3710 COULTER DRILL, 10" SPACING, ANTI HAIR -PIN SCRAPERS, 4 TANK METERING, X20 MONITOR, BAG LIFT, DUALS DUAL SHOOT OPENERS, 2 FANS, 10" DIX AUGER

2003 BOURGAULT 5710 & 2000 5350

W/ 2000 5350 TANK, 47' W/ MRB 3.5" PACKERS
DOUBLE SHOOT DRY, AGTRON PRIMARY
BLOCKAGE SEED/FERTILIZER,
DUAL FAN CRA 491 MONITOR

2002 BOURGAULT 5350

2 TANK METERING
RICE TIRES, STANDARD AUGER
X20 MONITOR, SIGNAL SHOOT SINGLE FAN
REAR TOW HITCH



2010 BOURGAULT 3310

3310-65 FOOT, MRB25'S DISC MEASURE 19" DOUBLE SHOOT DRY, 5 SECTION RAVEN NH3, TANK X30, PNEUMATIC ROUND PACKERS, WING DUALS FRONT AND BACK, COUPLER AND MANIFOLD PACKAGE. SPARE PACKER WHEELS

2009 BOURGAULT 6550

L6550ST, 4 TANK METERING
BAG LIFT, DOUBLE SHOOT
1 HIGH SPEED FAN, 1 STANDARD FAN
591 MONITOR C/W CRA AND AUX CLUTCHES

2010 BOURGAULT 6550

TRAILING
650/75R-34 DUALS 540/65R-24 LUG ON FRONT
DBL SH 2- FANS, 4 TANK METERING
REAR TOW HITCH
591 MONITOR

2014 BOURGAULT 3320

66' Q.D.A., 4.5" ROUND PROFILE SEMI-PNEUMATIC PACKER WHEELS, DOUBLE SHOOT AIR KIT TRAILING, DOUBLE SHOOT 8 PORT -6000 TRAILING, MRB III'S WITH CLOSER TINES, EDGE-ON FRONT DELIVERY KNIFE HOLDER, RAVEN NH3 KIT ON UNIT

2013 BOURGAULT 3320 & L6550

76ft 10" SPACING, 4.8 SEMI PNEUMATIC
3/4" CARBIDE TIPS, REAR DROP HITCH FOR NH3
RAVEN 3 SECTION NH3 KIT, 4 TANK METERING
BAG LIFT, DUAL FAN
DELUXE AUGER

2002 BOURGAULT 5710

59' 9.8" SPACING
DUAL SHOOT MRB'S
3" RUBBER PACKERS, 3/4 KNOCK ON KNIVES
LIQUID KIT, DOUBLE WALKING CASTORS
450LB TRIP

2014 BOURGAULT 3320 & 7550

6 RUN 10" SPACING, 4.5" ROUND SEMI-PNEUMATIC PACKERS, MRB III W/CLOSER TINE, TOPCON PRIMARY BLOCKAGE, DOUBLE SHOOT W/NH3 + DRY TO BANDERS, MRBS MEASURE 19", 3/4" CARBIDE OPENERS, DOUBLE SHOOT 6 PORT

2001 BOURGAULT 5710

54', 9.8" SPACING, 3 1/2" STEEL PACKERS
DOUBLE SHOOT TRAILING AIR BIT BOURG. 5"
PRIMARY, DOUBLE SHOOT MRB'S SERIES
DUTCH SUPER EAGLE 1" TIP

2018 BOURGAULT SPS360

3 BAR 1/2" HEAVY DUTY HARROWS, CARBIDE 3" TIP BOLT-ON OPENERS, REAR TOW HITCH PKG, COULTER SECTION - NOTCHED 20" DISKS FINISHING BASKET PKG

SHOP OUR FULL INVENTORY ONLINE AT FARMWORLD.CA

5 Large Capacity

The theme for 2016 was 'Think Big ' with the introduction of the model 71300, taking productivity to the next level. The huge 1,340 bu capacity (equipped with the optional Saddle tank) made it the largest production air seeder in the world. To greatly reduce the potential of implement damage, as well as stress on the operator, a self-applying surge brake system was also released in 2016. The surge brakes are a very important safety feature as a loaded 71300 in-tow can weigh in excess of 130,000 lbs!

There are many other options that have been added to the 7000 Series line-up, including tracks and larger tires, the BulkBoom™ mini-bulk lift, the Saddle Tank with independent weigh scales, conveyors and larger augers; the seemingly unending list continues!

Innovation is always in style at Bourgault and is what has allowed Bourgault to lead the seeding industry since 1980 with the world's first tow behind air seeder.

Innovation does not come easy, however, it is easy to know when it has been achieved; just talk to one of the many satisfied Bourgault 7000 Series owners. ■

ROCKY MOUNTAIN EQUIPMENT

ONE POWERFUL NETWORK

SAME LOCAL ADVANTAGE

YOUR DEPENDABLE EQUIPMENT PARTNER

ROCKYMTN.COM | 1-866-763-1427 | CASE IH AGRICULTURE

Bring Your Operation EYE TO EYE with the future of farming.

There were 4.9 billion devices connected to the internet in 2015 (Forbes); by the end of 2020 there will be 896 trillion (Gander Research)!

'Smart TV', Internet of Things (IoT), the Cloud; these are just a few of the terms that are popping up as more and more companies develop products that are 'connected' to the internet that allow information and data to flow both to and from the device. Our society continues to evolve where all aspects of life are connected – from fitness tracking to refrigerators creating their own shopping lists! And I know I simply don't feel 'right' without that smart phone within arm's reach! The same can be said with agriculture – from instantaneous rainfall reports to grain bins alerting you of temperature or moisture issues. The other significant trend in agriculture has seen economy of scale push farm sizes up and up over the past 20 years, with many farms now over 6,000 acres. A very general rule of thumb is that you need 10-ft of seeding implement for every 1000 acres, so once a farm has pushed over 6,000 acres in size we see a trend to ownership of multiple seeding implements. The push to maximize the operating efficiency of this capital investment can typically be obtained by keeping seeding implements working in the same field in very close proximity to one another (easier to fill, service, etc…) – obviously ensuring your Bourgault Auto-Section Control (ASC) is also fully functional and integrated with the other seeding implements is critical to the overall operational efficiency!

(Cont'd on page 13)

HARROW TINES

IMPROVED WEAR. EXCEPTIONAL VALUE.

The *MAX LIFE™* process infuses tungsten carbide onto the harrow tine creating the toughest and most economical option available. Field tests have proven that *MAX LIFE™* tines outlast regular tines by a minimum of 6X.

Available in several sizes to fit Bourgault, Brandt, Degelman, Elmer's, Flexi-Coil, Gates, Rite Way, Salford and Summers/Herman.*

MAX LIFE HARROW TINES

MAX LIFE™ EXTENDS THE LIFE OF HARROW TINES BY A MINIMUM OF

6X

SWEEPS & DISKS

THE NEXT GENERATION OF TILLAGE TOOLS.

Introducing **Blue Armour™** - the longest wearing, most durable, and best value sweep we've ever produced. **It's the new BTT Blue Standard.**

- **24-40% Longer wear life**
- **Increased durability**
- **Reduced stem wear**
- **Better value = more acres per dollar**

NIAUX 200 DISK BLADES.

The longest wearing disk blade for seeding and tillage.

- 20 to 40% longer wear
- Retains a sharp cutting edge
- Ductile core, increased resistance to breakage
- Special high-grade, quality steel
- Lifetime warranty on breakage

3 ZONES OF HARDNESS

- Increased Flexibility (48-50 HRC)
- Increased Durability (50-55 HRC)
- Maximum Wear (55-58 HRC)

Available for AgPro, Amity/Concord, CNH, Great Plains, John Deere, Lemken, Norwood, Pillar, Salford, Summers, & Yetter.*

*BTT is continuously expanding product lines. For the most current selection talk to your local dealer, call us at **1.800.878.7714** or visit **tillagetools.com**.

@TillageTools
BourgaultTillageTools

Bourgault Tillage Tools BTT

Share Your Coverage

When operating multiple implements in the same field, each X35 needs to know whether they are doing the same job and where in the field that job has been completed – that is, whether each product being used during that particular seeding operation has been applied (i.e.. seed + starter + nitrogen). The X35 software was established with this ultimate goal in mind, with coverage layers for each product and the Field/Job structure already in place. The X35 just needed to be equipped to 'talk' to each other.

WI-FI = Implement to Implement Communication

Having everything connected to the internet seems like it would be ideal, but there are two main challenges:

i. Cellular connection comes with the added cost of a data subscription with a cellular provider. Moving large amounts of data across existing cellular networks can be both costly and slow.

ii. Although cellular coverage is increasing every day, we all have experienced a spotty signal when out in the field.

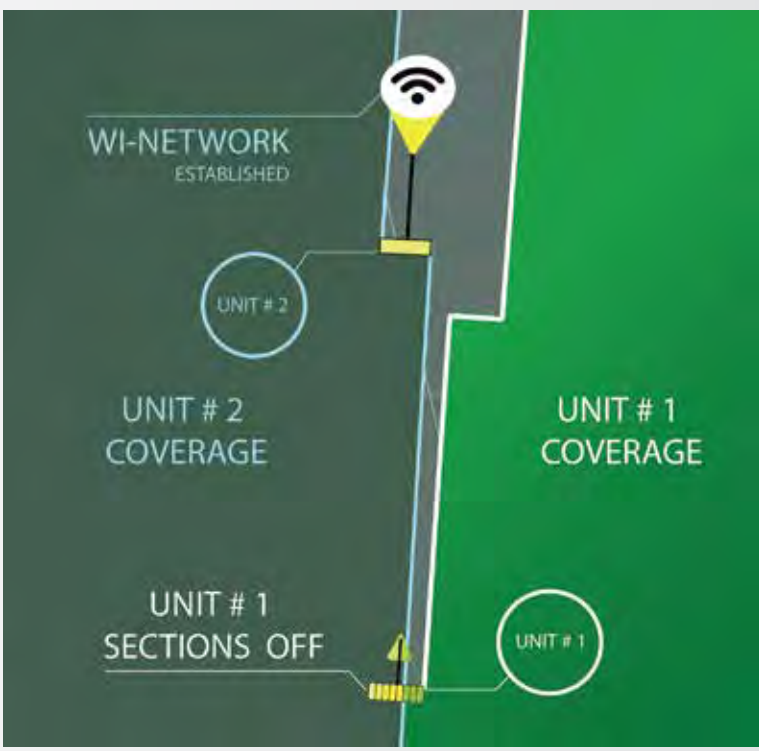
Cellular connectivity will definitely be a key piece of the future, but the establishment of a Local Area Network via Wi-Fi connection will ensure 100% operability today and reduce cellular data requirements in the future. An X35 will automatically establish Wi-Fi communication with any other I2I equipped X35 within range – which is easily within a full-section of land (1 mile X 1 mile) via a high-gain antenna. The system also supports 'unit hopping' whereby if unit 1 is within range of unit 2, and unit 2 is within range of unit 3, but unit 1 and unit 3 are not within range of each other, unit 1 and unit 3 will maintain a connection through unit 2.

Cellular = Implement to Internet Communication

The I2I system also comes equipped with a cellular modem which will immediately allow for software updates to be automatically provided without a data subscription and allow future enhancements to both share and access data from the internet (i.e.. download prescription maps, upload as-applied maps, fleet monitoring, service/support, etc…) the possibilities are endless!

Both new and current Apollo X35 units will be capable of supporting the I2I option, which will be available as a limited release for Spring 2020.

For information on availability, please contact your local Bourgault Dealer. ■



DRILL SPACING & WHEAT YIELDS

by Curtis de Gooijer, P.Ag., CCA
Corporate Agronomist

10" EDGES OUT 12"

Producers are faced with many different options to consider when looking for a new seeding implement. One of the key decisions producers must make is choosing which row spacing will work best for their operation. For increased flexibility, Bourgault offers their XTC (Extra Terrain Contouring) and QDA (Quick Depth Adjust) ParaLink™ Hoe Drills on both 10" and 12" spacing.

Bourgault plots spring 2019

Bourgault plots spring 2019

While the 10" option is still the more popular of the two, if the focus is to increase efficiency, producers may consider moving to a wider spacing to reduce problems in clearing residue as well as reduce horsepower requirements and decrease the number of openers which will reduce maintenance requirements and operating costs. But do these benefits equate to the best investment in the long run? It is important to include the agronomic implications of this decision and its effect on overall profitability.

Row Spacing Study with Wheat

Over the years, there have been many conversations between producers, agronomists and manufacturing companies debating as to whether narrower spaced wheat out-yields wider spaced wheat. Many studies have been conducted and published comparing various row spacings, many of which found that a narrower row spacing displayed a greater potential for higher yield. While many efforts have been made to draw a conclusion on the best row spacing, most of these were done in the days prior to one-pass seeding and a few were done with side-banding. None of the studies conducted compared the Mid Row Bander® (MRB) fertilizer application system to other popular single-pass seeding techniques. This season, the Bourgault Agronomy Team set out to conduct side-by-side, replicated field scale trials near St. Brieux SK., to help determine which row spacing will bring the most value to your farm's bottom line.

The Trials

Equipment Used

Bourgault 3320 30' ParaLink™ Hoe drills were used to compare row spacing; one on 10" spacing and the other on 12" spacing. ¾" openers paired with 4.5" round packers were installed on both seed drills. The same L7550 tank was used for both drills to ensure consistency in the trials. A dual-knife side-banding drill on 12" was also used.

Seeding Conditions

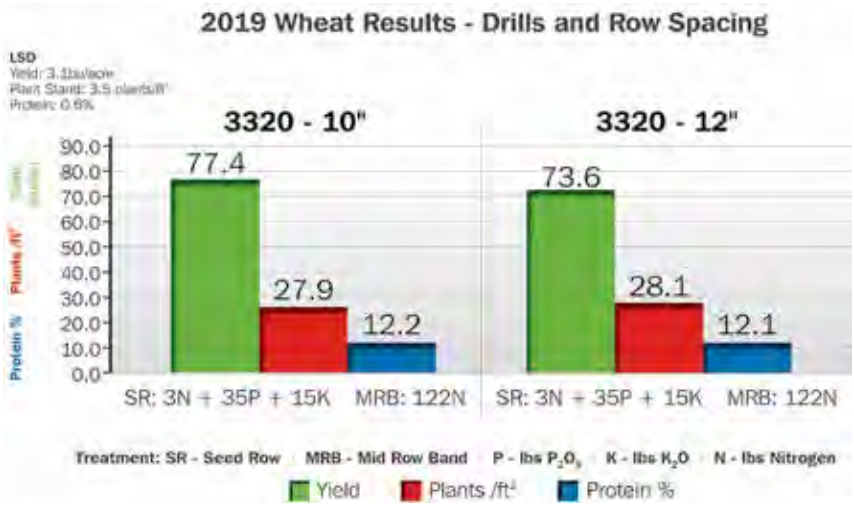
The seeding conditions on May 17th, when the trials were conducted, were ideal with moisture present ½" below the surface. After seeding, there was very little rain until June 14th.

The Process

All treatments were replicated 3 times in a randomized block design. Only the center 25' of each 30' wide strip, at a length of 400', was harvested to reduce anomalies that would be present at the edges. Grain from each treatment was individually weighed via a weigh wagon, and then samples were collected so that moisture, dockage and protein could be analyzed. Once harvest was completed, the moisture content was equalized to 13.5% and dockage was removed from all of the samples to neutralize their effects on the data. The final analysis determined that the least significant difference (LSD) for yield was 3.1 bu/acre, for plant stand LSD was 3.5 plants/ft^2 and for protein LSD was 0.6%.

(Cont'd on page 17)

DRILL SPACING AND WHEAT YIELDS - 10" EDGES OUT 12"

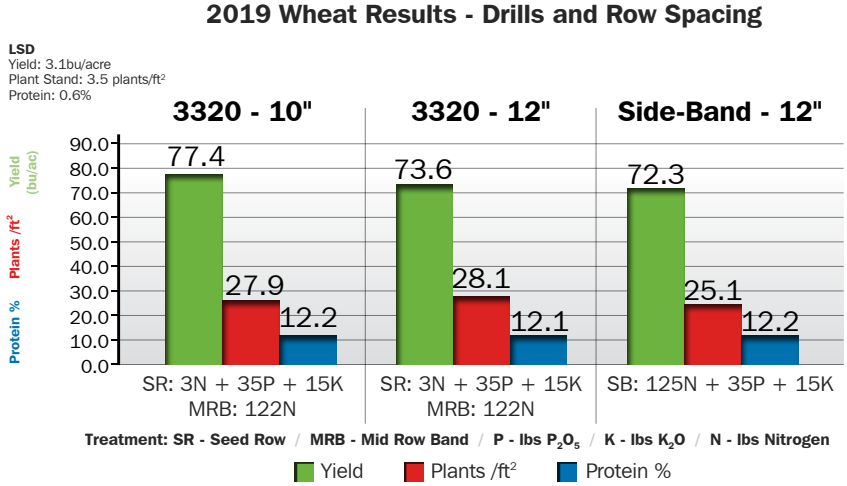


While the difference in yield between the 10" machine and the 12" may not appear to be great, it is statistically significant. A yield difference of 3.8 bushels at $6/bushel equates to just under $23/acre. The plant stand and the protein levels were not significantly different and there was very little difference in maturity, dockage or lodging. Essentially, the only difference documented was yield, everything else was unaffected.

With only one location and one growing season under our belts, our findings cannot be considered comprehensive, however, it is interesting that our the results do reinforce other comparative studies reporting that cereals seeded on the narrower row spacing tend to achieve higher yields. This is in contrast to other crops such as canola, where the plant's physiology allows it to fill in the gaps, typically overcoming the ill effects of wider spacing.

The MRB® Factor

The question of: "Are mid row banders too far away from the seed making the nitrogen inaccessible for the plant's development?" often comes up. If this were the case, a move from 10" to 12" would exacerbate the situation, increasing the seed to nitrogen distance from 5" to 6". Anticipating this question, a third drill was included in our study that placed the nitrogen in the side-band via a dual-knife system. The fertilizer was placed in the typical dual-knife arrangement of 1½" down and to the side away from the seed on 12" spacing. All fertilizer was placed in the side-band as this is the recommended practice from the manufacturer of this style of opener. The same L7550 air cart was used as with the two previous drills for consistency.



The results show that there was no significant difference in yield, plant stand or protein levels between the side-band 12" machine and the mid row band 12" machine. However, the yield was still significantly less than the mid row band 10" machine. These findings suggest that row spacing is playing a larger role in yield than nitrogen placement in this year's growing conditions.

(Cont'd on page 19)

SEEDING / TILLAGE

2019-BG3320, XTC, 66', HF, V-PAK, LDG 8 PORT SECT ..... **CALL**
2018-BG3320, XTC, 76', HF, V PKS, 3/4 TIPS **$280,000**
2017-BG3320, XTC, 76', HF, V PAKS, 3/4 TIPS **$265,000**
2017-BG3720-60, HF, DISC DRILL, BLOCKAGE **$265,000**
2017-BGL7800, LOADED, X30 ..... **$200,000**
2015-BG-3320-76, QDA, HF **$250,000**
2012-BG3320, QDA, 60', 3/4 TIP, V-PACK, MRB UPDATE **$140,000**
2012-BG3320, 66', QDA, RAVEN, NH3, DAK, MRB, 3/4 TIPS, INTELL AG **$155,000**
2013-BG3320, QDA, 60', MRB UPDATE, 3/4", V-PACK **$140,000**
2009-BG3310,55', 6 PORT, MRB **$85,000**
2010-BG3310, 65', SIDE BAND, 8 PORT **$80,000**
2010-BG3310, 65', SS **$80,000**
2008-BG3310, 65', NO BANDER, SIDE AK **$80,000**
2019-BG9500, 70', 3BH, HITCH, SP LOK **$123,500**
2018-BG7950 W/ AUGER **$295,000**
2017-BG7950, 8 PORT, SECTIONAL **$275,000**
2017-BG7950, 8 PORT **$265,000**
2015-BG7950, 8 PORT, SECT **$250,000**
2004-BG6350, 3 TANK, AUX CLUTCH **$47,000**
2010-BG-L6450, SINGLE SHOOT **$68,000**
2006-BG9400, 60', SPD LOCKS, HITCH, 3BH **$78,000**
2002-BG-L5350, SA **$30,000**
2003-BG5440, DAK, BOOTS **$35,000**
2004-BG6550, DUALS, DS,591 ..... **$65,000**
2008-CIH 3380 TANK **$26,000**
2017-VER700-40, 4BH **$55,000**
NEW-2020-BG8910-60, HITCH, 4BH ..... **COMING**
2006-BG8810-58, 8', 4BH, PKS **$65,000**
2003-BG8810-40, AK, PKS, 330, 10 ..... **$27,000**
BG9200-50, KNIVES, AK, GRAN KIT **$45,000**
2003-BG8810, 60', DAK, RBR PKS, MRB **$69,000**
BG5710-54, DAK, MRB, UPDATE HITCH **$29,000**
BG5710-54, 3.5PK, LIQUID, OLD HITCH **$29,000**
2012-BG5810, 62', DRY MRB, LEAD OR TRAIL AIR KIT **$85,000**

TRACTORS

2019-VER610, REV FAN, CAB SUSP, 900 TRELL, WGT, DIFF LOCK, NO TOP WGT ..... **CALL**
2019-VER610, DIFF LOCK, STEER READY, TOP+FRT WGT, NO TOP, REV FAN, CAB SUSP, LEATHER, SIDE WGT ..... **CALL**
2018-VER570, SIDE WGT, TOP, 800 MICH, LEATHER, FULL DIFF LOCK, PTO, FRT WGT ..... **CALL**
2019-VER570, 800 GOODYEAR, FR WGT, LEATHER, PTO, FR DIFF LK ..... **CALL**
2019-VER520, 800 MICH, PTO, DIFF LOCK, FRT+TOP WGT ..... **CALL**
2010-VER430, NO PTO, GPS READY, 710/42 FIRE, NO FRT WGT, 24TOP, 24REAR, LEATHER,55 GAL ..... **CALL**
2019-VER610 DELTA, CAB SUSP, GPS READY, DLX LEATHER, 36" TRACK ..... **CALL**
2018-VER295 MFD, 600/65TRELL, 710/38REAR, FR WGT, 3PH, 6 HYD, HIGH FLOW **$230,000**
2018-VER265 MFD, 710/38 SINGLE, FR AND REAR WGT, 3 PH **$210,000**
2015 VER550, 1271 HR, 800 TIRE, 110 GAL, RAVEN, TOP BRKT, NO TOP WGT, CLOTH **$295,000**
2014 VER550 DELTA,525 HR, NO DIFF LK, REV FAN, JD WIRES **$335,000**
2010 VER 575, 3300 HR, 80 GAL, DIFF LOK, NO GPS, WGTS, LEATHER **$250,000**
2016 VER500, 880 HR, 800 TIRE, WGTS, 110 GAL **$295,000**
2015 VER450, 1520 HR, PTO, OUTBACK, 710/42 MICH **$265,000**
2010 VER435, 3700 HRS, 710/ 42 FLUIDS, NO GPS **$175,000**
2010 CIH 385, STX, PS, 6,000 HRS, PTO **$150,000**
2007 JD7930, MFD, 6,000 HRS, PRONT PTO, 3 PTH **$119,000**
1999 JD9200, 20.8 X 38 DUALS (1000 HRS ON THEM), 6500 HRS **$82,000**
1991 CIH9270, STD, 20.8 DUALS, 7800 HRS **$62,000**
1985 VER 876, 10,000 HRS, REBUILT TRANS, MICH DUALS **$29,000**

SWATHER AND HEADERS

2020 MCD M155 E4, 35' DKD, NEW ..... **CALL**
2020 FD135/ FD140, FLEX DRAPER, JD OR CIH/ NH, E4 MODEL ..... **CALL**
2018 MCD M1170, 35' DKD, OR 40' DKD NEW ..... **CALL**
2018 MCD R85, 16' DISC HEADER FOR M205 ..... **$38,500**
2014-JD W150, 30' SKD 500HRS, ROLLER, SHEERS **$119,000**
2015 MCD M155, 35' DKD,550 HRS, ROLLER, SHEERS **$129,000**
2012 JD 635F, AUGER, HYDRA FLEX 35' **$24,000**
2009-M150, 1251 HRS, 35'SKD **$85,000**
2010-M150, 1361 HRS, 35', TRANSPORT **$85,000**
2008-PREMIER M150, 2170 HRS, D50 ..... **$80,000**
2009-M150, D50 ..... **$85,000**
2009-MCD-M150, 1300 HRS, 30', ROLLER **$85,000**
PRAIRIE STAR 4920, 2226 HRS, 30'-960, STAB WHL **$25,000**
2001 PREMIER 2952, 30' 972, 1800HRS **$45,000**

MISC

NEW-BG-XR770-70 ..... **CALL**
NEW-BG-XR750, DEMO ..... **CALL**
BG7200, 84' **$37,000**
MORRIS, 70' **$18,000**
2019-VERS FURY, 25' & 35', HI-SPD, DISCS ..... **CALL**
2019-V1100 GRAINCART, SCALE, TARP (RED ..... **CALL**
BRENT 1082 CART, SCALE, NEW TIRES **$48,000**
2019 – LEONS 6.5 YD SCRAPER **$24,500**
2019-LEONS 10 YD SCRAPER **$31,500**
2020 CONVEY-ALL 1645 STAINLESS **$41,500**
2017 CONVEY-ALL 1045, 1645 TL **$31,500**
2019-VER- SD650 20' DISC **$42,500**
2019 VER 15' DISC (SD550 ..... **$29,500**
2015-VER SD650 15' DISC **$32,500**
2011-LEONS 13YD SCRAPER **$38,000**
2011-DEGELMAN-M34 SCRAPER **$120,000**
NEW FARM KING SNOWBLOWERS - 50" - 108" IN STOCK ..... **CALL**
KUBOTA 12' and 15' MOWERS IN STOCK ..... **CALL**

WHEATBELT SALES (2003) INC.

Hwy #5 East, Wadena SK | 306-338-2588 | wheatbelt@sasktel.net
Bill Sowa 338-3310 | Jeff Schlachter 338-7080 | Jim Sowa 338-7660
www.wheatbeltsales.com

VERSATILE MacDon BOURGAULT Kubota

JOHN DEERE NELSON MOTORS AND EQUIPMENT AVONLEA REDVERS

AVONLEA 306-868-5000
REDVERS 306-452-3418
www.nelsonmotors.com

GOOD USED EQUIPMENT

4 WD TRACTORS

1995 JD 8570 Duals 6152 hrs $44,000
1998 JD 9300 Duals, PTO 11010 hrs $64,000
2009 JD 9630 Triples, 5020 hrs $189,900
2012 JD 9560R Duas, PTO 2704 hrs $294,400
2016 JD 9620R Duals, PTO 1600 hrs $437,000
2014 CaseIH Steiger 450 Triples, PTO 1075 hrs $280,000

TRACK TRACTORS

2017 JD 9620RX 36" trk, PTO, BigPump 1270 hrs $584,000
2014 JD 9560RT 36" trk, PTO, BigPump 4200 hrs $302,500
2018 Versatile 610DT 36" trk, PTO, BigPump 400 hrs $544,900
2018 Versatile 610DT 36" trk, PTO, BigPump 471 hrs $542,900

2WD TRACTORS

2014 JD 6150R MFWD, IVT, LDR 2937 hrs $152,900
2013 JD 6170R MFWD, PPS 3338 hrs $118,900
2012 JD 6170R MFWD, Ldr 6437 hrs $129,900
2011 JD 7215R MFWD,PPS, Ldr 3900 hrs $159,000

SEEDING EQUIPMENT

56' JD 1870/1910 12" spg, D/S 2011 ..... $169,000
61' JD 1895/C850 10" spg, D/S 2018 ..... $605,900
30' JD 1895 10" spg, S/S 2014 ..... $75,000
75' Bourgault 3310/6700 10" spg, D/S, MRB 2011 ..... $201,000
76' Bourgault 3320/6700 10" spg, D/S 2012 ..... $275,000
76' Bourgault 3320/6550 12", S/S, 2012 ..... $210,000
76' Bourgault 3320/6550 12", S/S, 2012 ..... $210,000
56' SeedMaster 5612 12" spg, D/S 2008 ..... $110,000

SPRAYERS

2015 JD R4038 120' 1350 hrs $326,900
2017 JD R4045 120' 901 hrs $445,000
2015 JD R4045 120' 1350hrs $371,000
2010 JD 4930 120' 1610 hrs $199,000
2010 JD 4930 120' 2790 hrs $169,000
2009 JD 4930 120' 2500 hrs $165,000
2012 JD 4940 120' 1308 hrs $275,000
2019 Rogator RG900C 100' 63 hrs $450,000
2017 CaseIH Patriot 4440 120' 864 hrs $410,000
2012 CaseIH Patriot 3330 100' 2500 hrs $167,000

COMBINES (Please refer to our web site for more details)

(3) - 2019 JD S790 ..... See Website
(5) - 2018 JD S780 ..... See Website
2012 JD S670 duals 2658/1865 hrs $201,000
(4) -2015 JD S680 D ..... See Website
2014 JD S680 Duals 1520/1094 hrs $298,000
2013 JD S680 1840/1339 hrs $256,800
(5) - 2012 JD S690 ..... See Website
(2) - 2013 JD S690 ..... See Website
2009 JD T670 Singles 2050/1400 hrs $165,000
(2) - 2006 JD 9760 ..... See Website
(2) - 2011 JD 9770 duals ..... See Website
(2) - 2009 JD 9770 ..... See Website
2009 JD 9870 Duals 2685/1987 hrs $149,900
(4) - 2010 JD 9870 Duals ..... See Website
2011 JD 9870 Duals 2277/1654 hrs $177,600
2005 JD 9660 STS Duals 3671/2760 hrs $87,900
1996 JD 9600 PRWD, Single 4294/3023 hrs $35,000
2017 Class 760TT Trks 725/465 hrs $512,000
2017 Class 760TT Trks 975/624 hrs $493,000

GRAIN HANDLING EQUIPMENT

2010 Brandt 13X70XL Grain auger $13,900
2013 Brandt 13X70HP Grain auger $17,900
2010 Brandt 13X90HP Grain auger $15,900
2016 Brandt 1547LP $22,000
2016 Brandt 1547LP $22,000
2005 Sakundiak TL10-1200 ..... $6,900
1979 Walinga 510 Grain Vac $3,900

Why The Yield Difference?

The most likely explanations for the yield differences are: 1) the crop seeded on the narrower spacing competes better with the weeds, 2) the root system on the narrower spacing can more quickly and extensively harvest the moisture and nutrients that are located in the center of the row, and, 3) the crop covers the area between the row sooner reducing moisture losses to the atmosphere.

Some farmers adopt a wider row spacing and then select wider openers to reduce the gap between the rows. However, with a wider opener, seed depth precision starts to decrease as it produces more draft than a narrower opener thereby eliminating one of the benefits of selecting a wider row spacing. Also, more soil is thrown to the side, which may lead to higher moisture loss, and the back rows are more prone to throw soil on the front rows, both of which can become very problematic in a given year, especially with canola.

The ultimate in row spacing may be a narrow opener on narrow row spacing. The world record holder for highest wheat yield was seeded with a 6" spaced machine using disk openers. There are many differences from New Zealand, where this record was set in 2017, to here in the Great Northern Plains including varieties, moisture and growing season. However, this does not take away from the fact that these differences were exploited using narrower row spacing instead of wider.

Making Narrower Work

The challenge to narrower row spacing is getting through the crop residue from the previous season. In some cases the advantage of conserving moisture trumps working in the residue to get through with narrower row spacing. Management options are often deployed by producers by the way of multiple harrow passes, baling, or setting a match to the field. If these options do not work, many producers choose to simply go wider to get through the residue.

Bourgault operators decrease these compromises by equipping their 3320 drills with Mid Row Bander® fertilizer applicators to deliver excellent residue clearance. The MRBs not only cut the residue and safely place fertilizer, but they also allow a narrow single-shoot tip to be placed on the seed opener for greater residue clearance. This makes the 10" spacing the most common opener configuration on Bourgault 3320 seed toolbars. This zero-till configuration is unique in the marketplace, as it allows farms to successfully use the narrowest row spacing, achieve a commendable level of residue clearance and provides optimal fertilizer placement to reduce risk to germination and emergence.

Narrower a Winner

The results from 2019 large scale study on row spacing in wheat are very exciting and support what the majority of past studies documented. Narrower row spacing statistically provides the highest yield potential when compared to a wider arrangement. Mid Row Banders® are the best complement to narrow row spacing by helping to cut through the residue, minimizing moisture loss and providing the safest way to place all of the crops nutrient requirements in a one-pass system. ■

MRB III

MID ROW BANDER® III

by Jeff Strukoff, PAg
Bourgault Agronomy Team Member

WHERE TO STASH THE POTASH
SEED ROW OR MID ROW?

This year on the Bourgault farm was interesting to say the least. From the start of seeding to the end of harvest, Mother Nature provided us with lots of learning opportunities. One of the learning opportunities I had this year involved the effects of potash fertility on wheat.

The term "potash" refers to a group of potassium (K+) bearing minerals and chemicals. The compound, Potassium Chloride (0-0-60), is the dominant source of potassium in the North American market. Potash, a macronutrient essential for plant and human health, is important in several chemical reactions in the plant, including photosynthesis, protein synthesis and starch synthesis. It is also very important in helping the plant regulate moisture loss by playing a pivotal role in stomata opening and closing on the leaves. Stomata are the small openings that allow air to enter the leaves on plants. Healthy stomata activity in the plant will reduce wilting during heat stress periods.

Our soil tests identified potassium deficiencies in several of our fields. This was not a surprise, since, as an industry, the majority of farms haven't matched potash fertilizer application rates with crop removal rates. This fact may be surprising to many as Saskatchewan is a major exporter of potash around the world. So why, if Saskatchewan is so abundant in potash, would there be a shortage in our soil? Although Saskatchewan is a major exporter, this valuable resource is found thousands of feet below the surface inaccessible to the plant's roots. I've been soil testing in the St. Brieux area for over 20 years and have seen levels of potassium decline from over 500 ppm to under 100 ppm in client's soil tests. This past spring, to address this deficiency, we decided to increase our potassium rates to better reflect crop removal rates. Looking at the forecast, we decided that it would be wise not to place any additional fertilizer in the seed row to compete for moisture, so the potash was placed down the Mid Row Banders®.

There are two pieces of information that are very important to remember when looking at the photos in this article:

1) We seeded all of our wheat on canola stubble from May 8th to May 14th into perfect moisture. The first wheat seeded came up beautifully by May 20. There was no rain all spring and by the early part of June it was extremely dry;

2) We had swathed all of our canola on an angle in 2018. After we finished swathing canola in August, the skies opened up and rain and snow fell on the swaths for over a month.

By the end of June, there were distinct patterns showing up in some of the wheat fields. Drone photos provided us with a bird's eye view of the pattern. Plants from the dark green strips and from areas between the dark green strips were closely inspected. There were obvious differences in plant growth. At first glance, the symptomology of the affected wheat resembled nitrogen deficiency. The oldest leaves were pale, chlorotic and plant growth was delayed. Tissue samples were sent to a lab to help determine what exactly the issue was. The tissue tests confirmed we were dealing with a potassium deficiency.

This result was further supported by the photo below. Sulphur was applied across the entire field the fall before. This spring, the field was seeded placing phosphate in the seed row and nitrogen and potash in the mid row. In one area of the field, the potash was moved from the mid row to the seed row as an on-farm trial. The right side of the photo is where the potash was placed in the seed row, and the left side is where potash was placed in the mid row.

Wheat, June 2019

All crops require a high amount of potassium, just below that of nitrogen. However, only about 25% is exported in the seed, with the remainder staying in the straw. Abundant rainfall in the fall of 2018 caused nutrients to leach from the canola swaths into the soil below them.

(Cont'd on page 23)

PRE OWNED HARROWS

2016 BOURGAULT 7200 84 FT.....**$44,950**

2012 BOURGAULT 6000 90 FT **$24,950**

2004 BOURGAULT 7200 72 FT.....**$29,950**

2000 DEGELMAN 7000 70 FT, HYD TINE AJUST.....**$23,950**

1996 DEGELMAN 7000 70 FT, MANUAL TINE ADJUST **CASH SPECIAL** **$13,000**

PRE OWNED TRACTORS

2015 MASSEY FERGUSON 7716, DYNA VT TRANSMISSION, 4 HYD REMOTES, 3400 HRS **$139,950**

2015 MASSEY FERGUSON 7716, DYNA VT TRANSMISSION, 4 HYD REMOTES, 2600 HRS.....**$137,950**

2013 VERSATILE 450, STD TRANSMISSION, RAVEN GPS, 4 ELECTRONIC HYD REMOTES, 800/70R38 DUALS, 1500 HRS.....**$249,950**

2012 MASSEY FERGUSON GC2400, LOADER AND BUCKET, INDUSTRIAL TIRES, 139 HRS.....**....CALL**

2009 VERSATILE 400, STD TRANSMISSION, 4 HYD REMOTES, 710/70R38 DUALS, 2468 HRS.....**$189,950**

2007 VERSATILE 2375, STD TRANSMISSION, 4 HYD REMOTES, 710/70R38 DUALS, 2347 HRS.....**$148,950**

PREOWNED SWATHERS

2015 MACDON M155, 40 FT D65 HEADER, TRANSPORT, GPS, HYD ROLLER, 527 HOURS.....**$139,950**

2015 MACDON M155, 35 FT D65 HEADER, STABILIZER-WHEELS, 486 HRS.....**$129,950**

2014 JOHN DEERE W150, 35 FT HEADER, STABILIZER WHEELS, MANUAL ROLLER, 577 HRS **$129,950**

2013 MACDON M155, 40 FT D65 HEADER, STABILIZER WHEELS, HYD ROLLER, 833 HRS.....**$129,950**

2012 WESTWARD M155, 35 FT D60 HEADER, TRANSPORT HYD ROLLER, 1640 HRS.....**$119,950**

2012 WESTWARD M155, 35 FT D50 HEADER, TRANSPORT, 1722 HRS.....**$109,950**

2010 WESTWARD M150, 30 FT D60 HEADER, STABILIZER WHEELS, 1405HRS.....**$89,950**

2010 MASSEY FERGUSON 9430, 30 FT 5200 HEADER, 1354 HRS.....**$59,950**

2010 MASSEY FERGUSON 9220, 36 FT, 5200 HEADER, 427 HRS.....**$65,950**

2008 MASSEY FERGUSON 9430, 36 FT 5200 HEADER, 1461 HRS.....**$59,950**

2000 WESTWARD 9350, 30 FT 972 HEADER, GPS, 2239 HRS.....**$49,950**

PREOWNED AIR DRILLS

2015 BOURGAULT 3320-76 QDA, 10"SPACING, SINGLE SHOOT, 2" OPENERS, 5.4 PACKERS.....**$219,950**

2013 BOURGAULT 3320-76 QDA, 10 SPACING, DOUBLE SHOOT, MRBS, 1" OPENERS 4.5 ROUND PACKERS.....**$179,950**

2010 BOURGAULT 3310-55, 10" SPACING, DOUBLE SHOOT, MRBS, NH3, 1" OPENERS, 4.5 ROUND PACKERS.....**$139,950**

2010 BOURGAULT 3310-65, 10" SPACING, DOUBLE SHOOT, MRBS, 3/4" OPENERS, V PACKERS.....**$119,950**

2010 BOURGAULT 5810-72, 12" SPACING, DOUBLE SHOOT, MRB, 5.5 PNEUMATIC PACKERS.....**$39,950**

PRE OWNED AIR SEEDERS

2015 BOURGAULT 7700, SINGLE SHOOT, ASC, 3 TANK METERING + SADDLE TANK, X-30 MONITOR, SCALE, CONVEYOR.....**$219,950**

2013 BOURGAULT 6700ST, DOUBLE SHOOT, 4 TANK METERING, 591 MONITOR, CRA & AUX CLUTCES.....**$129,950**

2011 BOURGAULT 6550ST, DOUBLE SHOOT, 3 TANK METERING, 491 MONITOR, CRA & AUX CLUTCES **$89,950**

2011 BOURGAULT 6350ST, SINGLE SHOOT, 3 TANK METERING, X20 MONITOR, REAR HITCH.....**$59,950**

2010 BOURGAULT 6700ST, DOUBLE SHOOT, 4 TANK METERING, 591 MONITOR, CRA & AUX CLUTCHES, BAG LIFT, CAMERAS **$119,950**

2006 BOURGAULT L6450, SINGLE SHOOT, 3 TANK METERING, 491 MONITOR, CRA & AUX CLUTCHES, DELUXE AUGER.....**$79,950**

2005 BOURGAULT L5350, SINGLE SHOOT, 3 TANK METERING, 491 MONITOR, CRA.....**$49,950**

2002 BOURGAULT 5440, DOUBLE SHOOT, 3 TANK METERING, 491 MONITOR, CRA.....**$49,950**

NEW AGED BOURGAULT INVENTORY IN STOCK. CALL FOR DETAILS AND PRICING.

Cropper Motors
Naicam, Sk

the dealership that service built

CALL 306.874.2011

SEE OUR FULL INVENTORY
www.croppermotors.com

ARMAN EQUIPMENT SALES INC.

403-485-6968
519 2nd Avenue North, Vulcan, AB
www.armanequipment.ca

2018 **BOURGAULT** XR770 eXtended range harrow – 70' and c/w full carbide tine package, in cab hydraulic control, and hydraulic jack. **NEW**

2016 **BOURGAULT** 3320 XTC – 76' on 10" spacing c/w ¾"carbide tips, V style semi-pneumatic packers, d/s air kit, d/s single run blockage, MRB III's and 2016 **BOURGAULT** 4[illegible] X30 monitor, d/s, conveyor, 5 tank metering, saddle tank, d/s high capacity fans, and rear duals. **SOLD**

2012 **BOURGAULT** 5810 – 52' on 9.8" spacing c/w MRB III's w/ Raven cold flow Nh3 kit and 440 monitor, [illegible]50 lb trips, s/s air kit, 3 ½" steel packers, square seed boots w/ ¾" tips, SpeedLoc adapters, and auto clutch switch and 2[illegible] **BOURGAULT** 6450 c/w 591 monitor, rear singles, s/s air kit, 4 tank metering, and rear tow hitch. **SOLD**

2010 **BOURGAULT** 5710 70' on 9.8" spacing c/w s/s air kit and 3 ½ steel packers, 450 lb trips, square seed boots w/ ¾" tips.

2008 **BOURGAULT** 3310 – 65' on 10" spacing c/w ¾"carbide tips, V style semi-pneumatic packers, d/s air kit, MRB II's and 2008 **BOURGAULT** 6550 c/w 591monitor, deluxe auger, 3 tank metering, d/s regular speed fans, and rear singles.

2006 **BOURGAULT** 6450 c/w 491 monitor, 3 tank metering, CRA, aux clutch, rear singles, d/s air kit w/ 2 regular speed fans, standard auger.

2003 **BOURGAULT** 5710 - 47' on 9.8" spacing, 3 ½" steel packers, d/s trailing air kit, MRB I's, double castors.

2002 **BOURGAULT** 5710 – 54' on 7" spacing c/w ¾" carbide tips, 2 ½" steel packers, s/s trailing air kit, and 2003 BOURGAULT 5300 c/w 491 monitor, 3 tank metering, s/s air kit, and rice lug traction tires.

1995 **BOURGAULT** 8800 – 40' on 10" spacing s/s airkit to shanks, granular air kit and distribution, quick-tach harrows and packers, and 1995 **BOURGAULT** 3225 c/w 591 monitor, 2 tank metering, and granular metering compartment.

2009 **JOHN DEERE** 1810 50' on 14" spacing c/w Nitolator Nh3 kit w/ hydraulic shut off, floating hitch, and 2013 Bourgault 4 bar mounted harrows.

Brooks Farm Equipment Inc.
WE DO IT RIGHT - FROM THE GROUND UP!

403-362-8222
12 Street West & Joanne Trucking Road, Brooks, AB
www.brooksfarmequip.ca

This made adequate potassium available for the 2019 wheat growing in these strips. The plants outside of these strips experienced potassium deficiency due to low levels in the soil.

This is why we saw a deficiency in the field, but not where the canola swaths were from the previous year. We also didn't see the deficiency as severely where the potash was placed in the seed row instead of in the mid row.

This photo shows the difference between the plants in the swath rows (wheat on left) and the affected plants between the rows (wheat on right).

The big take away: if you have a potassium deficiency in your soil, apply a safe rate of potash in the seed row topping up in the mid row if needed.

Moving forward, we will be placing a safe amount of starter potash and phosphorus in the seed row of all crops, with the bulk of fertility requirements applied down the MRBs. The Mid Row Bander® Fertilizer Application System gives the flexibility to place a safe amount of starter fertilizer in the seed row, while still being able to apply the entire nutrient package the crop requires in a single-pass.

As interesting as it was to witness this in the crop this year, I hope to avoid a similar situation in the future. There are many other learning experiences ahead I'm sure! ■

3320

PHD ParaLink™ Hoe Drill

THE 3320 PARALINK™ HOE DRILL

EXPANDING THE WINDOW OF OPPORTUNITY.

If there is one word that would best describe the 2019 farming season, it would be PROLONGED! *(Actually, I think many producers would have a few other choice words to describe 2019!)* In general, 2019 was all over the board: crops were slow to start due to the dry conditions and slow to finish because of wet and cool conditions. The extended season brought about additional challenges such as: multiple crop staging, extremely short crop stands, as well as, late flushes of weeds. The harvest stretched out to be the latest in a decade, with deterioration of cereals like barley from malt to feed, soybeans and flax in the snow and canola that was slow to mature.

Take full advantage of every growing season with the 3320 QDA Equipped with Hi-Flotation and MRBs.

Some producers fared better than others this season; typically, it was those who were able to get into the fields sooner who fared the best. With the 3320 ParaLink™ Hoe Drill, operators were able to capitalize on expanding their seeding window of opportunity. The Hi-Flotation option allowed 3320 operators the ability to get into the field earlier to take advantage of the best moisture conditions for establishing good emergence. Combining a narrow opener with Mid Row Banders® fertilizer applicators ensured soil disturbance was minimized and moisture conservation was maximized, this allowed crops to emerge quickly and more evenly. The easy depth adjustment of the QDA option allowed producers to quickly adjust seeding depth when the ever-changing conditions dictated the need. Early emergence typically translates into earlier flowering, maturity and ultimately, being able to harvest the crop earlier.

Earlier maturity paid dividends in a fall such as 2019, when every ~~day~~ hour of harvesting counted. The benefit at the end of the season showed up as more bushels of malt barley, beans that made it to the bin and canola that was dry enough to actually register on the scale of a 919 grain moisture tester.

Photo of wheat plots taken July 12th, 2019. The wheat on the left was seeded with a Dual-Knife system on 12" spacing, the crop on the right was seeded with a 3320 PHD equipped with MRBs on 10" spacing.

3320 Design Performance Benefits

When you walk up to a 3320 it becomes apparent that this is a seeding implement that is made for all conditions. The huge Hi-Flotation tires on the front of the drill prevent sinking into soft soil allowing seeding to commence sooner. Although dry seeding conditions were typically the norm in 2019, there were districts that began the season relatively wet. In the fields with wet spots the Hi-Flotation 3320 frequently seeded straight through, maintaining productivity in the process.

(Cont'd on page 27)

YOUNG'S EQUIPMENT

2016 Bourgault 3320-86-10 Air Drill

2008 Seed Hawk 65-10 Air Drill

2016 Case IH Steiger 580 Quadtrac Tractor

2014 Case IH Steiger 620 Quadtrac Tractor

0% FINANCING AVAILABLE

See **WWW.YOUNGS.CA** for full inventory listings.

SEEDING

2004 Bourgault 5710-50' 10"W/ 5440.....$73,500.00
2010 Bourgault 3310-75' 12"W/ L6550ST.....$175,500.00
2009 Bourgault 3310-75' 12"W/ 6450.....$120,500.00
2013 Bourgault 3710-60' 10"W/ L6550ST.....$228,000.00
2019 Bourgault 3320-76' 12"W/ 71300.....$689,000.00

TRACTORS

2009 Case IH Steiger 485 Quad 3544 Hours.....$236,500.00
2013 Case IH Steiger 500 Quad 3700 Hours.....$282,500.00
2013 Case IH Steiger 550 Quad 2500 Hours.....$350,500.00
2013 Case IH Steiger 600 Quad 3000 Hours.....$293,500.00
2016 Case IH Steiger 620 Quad 1553 Hours.....$388,500.00

HARVESTING

2008 Case IH 2588 Combine 2455 Hours.....$93,000.00
2006 Case IH 8010 2115 Hours.....$88,500.00
2012 Case IH 8120 W/ 3016 p/u 1375 Hours.....$198,000.00
2014 Case IH 8230 W/ 3016 p/u 840 Hours.....$290,000.00
2014 Case IH 8230 W/ 3016 p/u 1310 Hours.....$276,500.00
2015 Case IH 8240 W/ 3016 p/u 1182 Hours.....$307,500.00
2018 Case IH 8240 W/ 3016 p/u 292 Hours.....$453,000.00
2011 Case IH 9120 W/ 3016 p/u 1750 Hours.....$153,500.00
2014 Case IH 9230 W/ 3016 p/u 1000 Hours.....$288,000.00
2017 Case IH 9240 W/ 3016 p/u 438 Hours.....$469,500.00

HEADERS

2019 MacDon FD135-35'.....$103,500.00
2017 MacDon FD75-40'.....$92,000.00
2016 MacDon FD75-45'.....$84,500.00

WINDROWERS

2014 John Deere W150 792 Hours.....$122,000.00
2014 New Holland Speedrower 200 480 Hours.....$117,000.00
2008 Macdon M150 2400 Hours.....$85,500.00

SPRAYERS

2008 Case IH Patriot 3185 2350 Hours 90' Booms..$111,000.00
2018 Case IH Patriot 3240 153 Hours 100' Booms..$332,500.00
2013 Case IH Patriot 3330 1222 Hours 100' Booms..$238,000.00
2014 Case IH Patriot 3340 2087 Hours 120' Booms..$245,500.00
2009 Case IH Patriot 4420 2293 Hours 100' Booms..$180,500.00
2014 Case IH Patriot 4430 1429 Hours 120' Booms..$283,000.00
2015 Case IH Patriot 4440 890 Hours 120' Booms..$305,500.00
2004 Case IH SPX4410 3700 Hours 100' Booms.....$103,500.00
2012 John Deere 4730 1500 Hours 100' Booms.....$203,000.00

2014 Case IH 7230 Combine

Regina 306-565-2405
Windthorst 306-224-2110
Raymore 306-746-2288
Weyburn 306-842-2629
Chamberlain 306-638-4516
Moose Jaw 306-694-1800
Davidson 306-567-3074
Watrous 306-946-3387

2013 Case IH 9230 Combine

Visit us on the Web at www.caseih.com
Case IH is a registered trademark of Case, LLC.

www.youngs.ca

CASE IH AGRICULTURE

As the seedbed went from dry to drier, fields sown with a 3320 stood out from the rest. The 3320 QDA version, with its unique depth adjustment, was essential in allowing owners to change depth in less than 5 minutes targeting a moist seedbed for the crop to establish in. Quite simply, an awesome feature!

The well-built 3320 is constructed with a heavy 5 x 5 frame with inner wing down pressure and ballasted outer wing frame members to deliver even penetration in dry hard soils.

Adequate packing is critical in dry conditions, as illustrated in the pictorials below. The packer wheel on the dual-shank machine shares the load on both the seed row and fertilizer band. The 3320 packs directly on the seed row to provide good seed to soil contact and conserve available moisture. When equipped with PackMaster™, the 3320 targets the same packing force on every acre, further ensuring even emergence from one corner of the field to the other.

To no surprise the Mid Row Banders® are likely the number 1 reason 3320 owners were able to make the most of this challenging farming season. When compared to other one-pass systems, the 3320 equipped with MRBs® and a narrow seed knife preserved more soil moisture, was more productive, maintained seedbed integrity and kept the seed safe from the toxic nitrogen fertilizer. The 3320 with Hi-Flotation and Mid Row Banders®: ready for the dry, ready for the wet, expanding the window of opportunity. Are you ready to take advantage of every growing season? ■

DOUBLE-SHANK OPENER

INADEQUATE PACKING

Packing can be inadequate in dry, clay soil conditions.

3320 PHD EQUIPPED WITH MRBs

ON-ROW PACKING

The 3320 packs directly over the seed row producing better seed to soil contact conserving valuable moisture resulting in improved emergence.

BOURGAULT FACILITIES
BUILDING THE FUTURE

It is not a secret that the agricultural industry is currently experiencing some difficulties. Market uncertainties caused by trade wars, coupled with the double whammy of a challenging seeding and harvest season have tested the mettle of producers across the small grain growing regions of North America.

by Robert Fagnou
Bourgault Marketing Specialist

As a company, Bourgault rides the same roller coaster as agricultural producers; not only because our products are intimately tied to the prosperity of farmers, but also because many of our team members are farmers themselves, thus, events affecting the agricultural industry not only hit close to home, but hit right at home.

If businesses are to survive, it is the downturns that make them stronger; downturns force business owners, including farmers, to find ways to operate more efficiently. Downturns force equipment manufacturers, such as Bourgault Industries Ltd., to develop new equipment that farmers will want to purchase to achieve their efficiency goals. The rate of technological development is continuing to accelerate and Bourgault is investing in new infrastructure to support product development at the pace that farmers demand; it is clear from past downturns that it is the innovative farmers who continue to prosper.

F.P. Bourgault Innovation Center

In August of 2019, Bourgault opened the doors of the new F.P. Bourgault Innovation Center. This 66,000 square foot research and fabrication center is located behind the main air seeder production complex in St. Brieux, SK. This new $16,000,000 facility is designed from the inside out to accommodate fabrication, testing, inspection and evaluation of innovative designs. The demand of physically larger and product diversity put a strain on the old shop. As Dean Cleveland, our R&D Fabrication Team Leader stated, “What once filled the assembly bay in our old shop now looks like a speck in the distance in the new building.”

F. P. Bourgault Innovation Place Grand Opening August, 2019

The same facility is also the new home for the Tooling Design and Fabrication Teams. Once testing has been completed, new products do not have far to travel to become production ready. This consolidation makes knowledge and experience developed by the R&D team more readily accessible to the Tooling group.

Frank Bourgault, 1983 Founder of Bourgault

The new facility is named after the founder of Bourgault Industries Ltd., Frank Bourgault. Frank was a very gifted individual who could see beyond the current state and imagine what could be made better and how to achieve it. This conceptual skill, combined with an innate understanding of the farming industry, led to innovative concepts and practical equipment designs that changed agriculture around the world. It was only fitting that this facility bears Frank’s name.

Minot Service & Training Facility.

Bourgault first opened its Minot, North Dakota facility in 1994. Over the years, the facility has expanded and updated to suit the roles required by the overall organization. With each iteration, the team at Minot have maintained a focus on providing the best service and quality to our end customer, the farmer. This is still the case with the latest initiative for the Minot facility - that being of a world class Service and Training center. There is no doubt that the technology going out with today’s seeding systems is far beyond that of yesteryear. The latest seeder controllers support features and provide data at a level of accuracy that farmers 10 years ago would think was unbelievable. However, the technology offered with Bourgault seeding systems is only as good as the service and education available for the operator; as technology continues to advance, the level of support and training must continue to advance as well. There is likely

(Cont'd on page 31)

Whatever it takes to GROW.

CASE IH AGRICULTURE

SPRAYERS

2018 CASE IH 4440 120', Lux Cab, Front Fill, Viper 4, RS1 Autosteer, Autoboom, AIM Flex, LED Lights, 710 Trelleborg's, 380 Goodyear's, 537 Hrs STK: 030829 ..... **$499,000**

2017 CASE IH 4440 120', Lux Cab, Active Susp, 380's & Trelleborg 710's, Pro 700, AIM FLEX, LED Lights, Accuguide, Fenders, Reversable Fan STK: 026963..... **$390,000**

2015 CASE IH 4440 120', AIM Pro, Lux Cab, Autoboom, Accuboom, Pro 700, Omnistar, Accuguide, 320's & 650's, Fenders STK: 023117 ..... **$325,000**

2014 CASE IH 4430 120', Lux Cab, Active Susp, HID Lights, AutoBoom, Accuboom, Viper Pro, AIM Pro, 380's & 620's, Power Mirrors, Smartrax Steering STK: 023712 ..... **$280,000**

2014 CASE IH 4430 120', 380's & 620's, AIM Pro, Active Susp, Viper 4, Raven AutoSteer, Autoboom, Accuboom, Lux Cab, 262 Omnistar, Crop Dividers STK: 027394 ..... **$340,000**

2011 CASE IH 3330 100', Deluxe Cab, 650's & 320's, Viper Monitor, Autoboom, Accuboom, Raven Autosteer, Fenders STK: 033310 ..... **$155,000**

2013 CASE IH 4530 FLOATER Lux Cab, 810 Applicator, Power Mirrors, Dlx Light Pkg, Fenders, Aux Light Pkg, Double 6" Auger, Viper Pro STK: 025205 ..... **$220,000**

2013 CASE IH 4430 120', Lux Cab, 380's, AIM, Pro 700, Accuguide, Accuboom, Autoboom, HID Lights STK: 028558 ..... **$248,900**

2011 CASE IH 4420 120', AIM, Viper 4, 380 Duals, HID Lights, Autoboom, Accuboom STK: 028816..... **$213,000**

2013 NEW HOLLAND SP.365F 120' Front Boom, 1600 Gal, 380's & 650's, Raven E-Pro,Smartrax, Autoboom, Accuboom, HID Lights STK: 033089 ..... **$249,000**

2006 APACHE AS1010 90', 850 Gallon, 380/80-38 Front Tires, 380/90-46 Rear Tires, Autoboom, Smart Steer, Tridekon Crop Dividers, Shedded STK: 030106..... **$99,000**

TRACTORS

2017 CASE IH STEIGER 580 QUADTRAC Lux Cab, LED Lights, Pro 700, Accuguide, 2 Hyd Pumps, 6 Remotes, PTO, 36" Tracks, Tow Cable STK: 031839.... **$475,000**

2018 CASE IH STEIGER 580 IF800 Duals, Twin Flow Hyd, 6 Remotes, Pro 700, Accuguide, Tow Cable, Ballast Pkg, Ext Warranty STK: 030932..... **$505,000**

2018 CASE IH STEIGER 370 CVX 520 Duals, CVT Trans, Lux Cab, HI Cap Hyd Pump, LED Lights, Tow Cable, PTO STK: 030941..... **$385,000**

2018 CASE IH STEIGER 620 QUADTRAC 36" Tracks, Lux Cab, PTO, HI-Cap Twin Pumps, 6 Remotes, Accuguide, Pro 700, HID Lights, Tow Cable STK: 030991..... **$585,000**

2017 CASE IH STEIGER 500 QUADTRAC 36" Tracks, Lux Cab, LED Lights, Twin Pumps, PTO, 6 Remotes, Pro 700 Monitor, Accuguide STK: 031814..... **$489,000**

2014 CASE IH STEIGER 620 QUADTRAC Luxury Cab, PTO, Twin Flow Hyd, 36" Tracks, 6 Remotes, Pro 700, Accuguide, HID Lights STK: 025032 ..... **$385,000**

2014 CASE IH STEIGER 550 QUADTRAC 30" Tracks, Pro 700, Accuguide, 4 Remotes, 57 GPM Hyd, Tow Cable, HID Lights, Deluxe Cab STK: 024674 ..... **$310,000**

2004 CASE IH STEIGER STX450 710/70R42 Duals, 16 Spd Powershift, HI-Cap Pump, 4 Remotes, Deluxe Cab, Ezee Steer STK: 032635 ..... **$149,000**

2005 CASE IH STX450 QUADTRAC 30" Tracks, Powershift, EZ Steer 250 Auto Steer, 6 Remotes STK: 031567..... **$120,000**

2015 JOHN DEERE 9620R IF800 Duals, Full Weights, 6 Remotes, 115 GPM Hyd Pump, Lux Cab, Premium Light Pkg, Tow Cable STK: 032158..... **$410,000**

2010 NEW HOLLAND T9050 800 Firestone Duals, 6-Way 16' Degelman Blade, Auto Steer, 55 GPM Pump STK: 034004..... **$180,000**

2011 VERSATILE 435 800 Duals, 12 Spd Std, Outback Autosteer, 4 Remotes, 50 GPM Hyd STK: 032316..... **$179,000**

COMBINES

2018 CASE IH 7240 3016 Pickup, Ext Wear Rotor, Long Auger, Fine Cut Chopper, Dual Disc Spreaders STK: 031457..... **$409,000**

2017 CASE IH 9240 3016 PU Head, 620 Duals, Accuguide, Lux Cab w/ Leather, HID Lights, Ext Wear Rotor, Long Auger, Fine Cut Chopper STK: 031845..... **$450,000**

2016 CASE IH 9240 620 Duals, Lux Cab, Magnacut Fine Chopper, 50' Auger, Accuguide, HID Lights STK: 023148..... **$385,000**

2014 CASE IH 9230 3016 Pickup, 620 Duals, Lux Cab, HID Lights, Long Auger, MAV Chopper STK: 029710..... **$319,000**

2015 CASE IH 8240 620 Duals, Accuguide, Ext Wear Rotor, Air Comp, Long Auger, Std Chopper, Lux Cab, HID Lights STK: 029071..... **$403,000**

2013 CASE IH 7230 7520 Duals, Long Auger /w Pivot Spout, Hyd Fold Hopper, Fine Cut Chopper, Accuguide, HID Lights STK: 024148..... **$195,000**

2012 CASE IH 9120 620 Duals, Accuguide, HID Lights, MagnaCut Fine Cut Chopper, Rocktrap, 24' Unload Auger STK: 023485..... **$160,000**

2010 CASE IH 8230 3016 PU Header, 520 Duals, Long Auger, Accuguide Ready, Fine Cut Chopper, Accuguide, Lux Cab STK: 026921..... **$250,000**

2009 CASE IH 7120 2016 PU Header, 900 Singles, EZ Steer, Pro 600, Lux Cab, HID Lights, Small Tube Rotor, 2100 Hrs STK: 025606..... **$105,000**

2015 JOHN DEERE S690 615 PU Header, 650 Duals, Power Fold Cover, HID Lights, Autotrac, Active Terrain STK: 033757..... **$396,000**

2011 JOHN DEERE 9870STS 615 PU Header, 520 Duals, Auto Steer, Premium Cab, Michel Hopper Topper STK: 025918..... **$170,000**

2015 NEW HOLLAND CR8.90 620 Duals, HID Lights, 26' Folding Auger, IV4 Monitor, Autosteer, Pivoting Spout, Fine Cut Chopper STK: 028637.... **$265,000**

AGRICULTURAL | CONSTRUCTION | TRUCKS & TRAILERS

redheadequipment.ca

ESTEVAN
Hwy 39 W
866.659.5866

NORTH BATTLEFORD
Hwy 16 E
888.446.8128

SASKATOON
Hwy 16 N
800.667.9761

SWIFT CURRENT
2604 S Service Rd W
800.219.8867

Redhead EQUIPMENT

nothing more frustrating than fighting through what initially appears to be an endless series of screens and settings when you want to start seeding. The combination of these factors has made it very clear that in order to support the customer's education on these advanced systems, factory authorized training is paramount.

Throughout the year, the Minot Service & Training Center will be the hub to host dealer technician training, operational and start-up training, customer training, field days and agronomic test initiatives. It is through these initiatives that expertise on service and support of Bourgault products, including the seeder controller will be elevated at each of our dealer locations. In addition, Bourgault technicians are building on past training programs to ensure new customers have the opportunity to attend a "getting started" session to practice and ask questions prior to going out in the field.

With this new objective, the Bourgault Minot facility will continue to support the goal of the company - that being that our customers obtain the highest value from their equipment investment, day in and day out.

New Headquarters for Bourgault Australia

New Headquarters for Bourgault Australia

The final touches are being made at our recently acquired facility at 70 Gillam Drive in Kelmscott, WA. This is a suburb of Perth, the coastal capital of Western Australia.

The builders handed the site over to Bourgault at the end of October, 2019, so the team have been busy moving inventory and preparing the new building. With the old site already sold, the crew are on a tight schedule to be fully operational at the new location by the end of November. A grand unveiling of the site will be held early in the New Year of 2020.

The Bourgault Australia team is excited to take advantage of the expansive new 2¼ hectare (5½ acre) site, providing much needed space for unloading containers and yard storage. Two buildings on the site provide 100,000 square feet to house the assembly workshop, parts inventory, administration and customer reception. Wholegoods inventory can now be stored under one roof, providing a much better environment for unloaded components prior to assembly.

The new facility also includes a purpose designed training centre to hold seminars for dealer sales, parts and service staff, as well as new customer training.

New Headquarters for Bourgault Australia

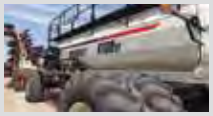
The move to a larger, fully refurbished facility has been a big investment for our Australian team. We are confident that it will allow us to attain a new standard of customer support as well as extend our customer base across the expansive farming region of WA.

(Cont'd on page 33)

SERVING AGRICULTURE AS AN INDEPENDENT DEALER FOR OVER 75 YEARS!!
HUGE SAVINGS ON OUR SHOP INSPECTED PRE-OWNED EQUIPMENT!
CALL TODAY!!

2016 CIH 620 Q
$435,000

2010 NH CR 9080
$119,000



2012 BG 3320 W/6700
$269,000

2009 BG 3310, 65FT
$85,000

2019 BG 3320 XTC, 66FT
$285,000

2011 BG 3310, 55FT
$125,000

PRE-OWNED TRACTORS & SPRAYERS

05 CIH 4010 Floater, 70'	$61,900
CIH 30" Tracks, Call for Pricing	306-682-2592
15 CIH 3340, Pro, Loaded, 120'	$319,000
16 CIH 620Q, Loaded	$435,000
Ford Versatile 9280, Guid	$49,900
03 CIH 375 Q, Luxury Cab	$139,000
02 CIH STX 425, Guid	$139,000
15 CIH 580Q, PTO	$385,000
17 CIH 4540 Floater	$379,000

PRE-OWNED COMBINES & HEADERS

16 Macdon FD 75, 45'	$58,500
12 CIH 9120, Duals, 900 hrs	$249,900
(5) 16 CIH 9240, Loaded.	FROM $405,000
NH CR9080, Luxury	$129,900
98 CIH 2388, Topper	$31,000
CIH 8240, Guid, Duals	$384,000
NH CR 9080, Redekopp, 1570 hrs	$139,900
97 CIH 2188, Topperv	$23,500

PRE-OWNED HARROWS & SEEDING

12 BG 3320, 66' w/6700	$269,000
12 BG 3320, 66'	$155,000
BG 5250, CRA	$17,500
BG 3310, 65'w/6550	$189,000
BG 3310, 65'	$85,000
BG 6550, Duals	$85,000
14 BG 6550, Duals	$99,000
15 BG 3320, 66'	$199,000
19 BG 3320 XTC, 66'	$285,000
15 BG 3320, 66' w/ 6550	$299,000
11 BG 3310, 55', EXC	$125,000
18 Morris C2-90 w/ 9800	$299,000
Morris CP 743, Hrrws, 43'	$9,000
CIH 5600 CP, 53', Hrrws	$19,900
Brandt 7000, H.H., 70'	$26,900
BG 3320 QDA, 50' W/ 6550	$259,000
Horsch RT 270, 27' Vert. Tillage	$49,000
BG 5710, 34ft w/ 5250	$45,900

PRE-OWNED MISC.

Highline NT 78 Rock Picker	$28,500
Danville 48" Chemical Applicator	$699.00
Danville 30" Chemical Applicator	$379.00
Sakundiak 10 X 1800, PTO Dr, 59'.	$5,990
Sakundiak 8 X 1800, Mover, 59'	$9,900
West Field 10 X 71, Swing	$6,900
Farm King 13 X 70, Swing	$9,900

1944 **75** 2019

HERGOTT FARM EQUIPMENT LTD.

10322 - Hwy 5 East, Humboldt, SK
www.hergottcaseih.com
1-306-682-2592

CASE IH AGRICULTURE | BOURGAULT

AGCO PARTS | PM360 PREVENTATIVE MAINTENANCE PROGRAM

Maximize your UPTIME

October 1 - December 31, 2019

SPRAYERS

Top Air TA2400, 2007	$59,900
Willmar 6400, 1999, 2773 Hrs	$39,900

COMBINES

Case IH 2588, 2007, W/2015 Case IH PU Header, 2061 Hrs	$99,000
CLAAS LEXION 760, 2018 (4), All With 2019 450 Swath Up Headers, 100 Feeder House Hrs & Up	$599,000
Gleaner R66, 2010, 4200 PU Header, 1641 Hrs	$119,900

TRACTORS

Agco 9755, 2000, 4411 Hrs	$69,900
Challenger MT515E, 2015, W/ML68 Loader	$159,000
Fendt 926, 2002, 540/65R34 Front Dual, 710/70R38 Rear Dual, 4900 Hrs	$129,900
MF 8680, 2012, 480/70R34 Front, 520/85R46 Rear Duals, 950 Hrs	$169,900
Versatile 550, 2015, Triples, 885 Hrs	$329,000

SEEDING/TILLAGE

Bourgault 3225, 1994, 3rd Tank, 2 Fans, PDM Augers	$9,900
Bourgault 5350, 2004, Single Fan, 491 Monitor, RTH, 3TM	$29,900
Bourgault 6450, 2008	$79,900
Bourgault 6550, 2011, Dual Fan, 591 Monitor, 4TM, 650 Duals	$99,900
Bourgault 7700, 2015	$209,900
Bourgault 7950, 2014, 12" Auger, Weigh Scale, 5TM, X30	$249,000
Bourgault 71300, 2019	$359,900
Bourgault 3310, 2008, 55', Comes With NH3	$69,900
Bourgault 3310, 2010, 75'	$99,900
Bourgault 3320, 2012, 66'	$149,900
Bourgault 3320 XTC, 2014, 76', 4.8" Packers, Dbl Shoot, MRB III	$169,900
Bourgault 3320, 2016, 66'	$259,900
Bourgault 3320 XTC, 2019	$359,900
Bourgault 5810, 2011, 62', 10" Space, MRB III Updated	$109,900
Bourgault 7200, 2012, 84', 5/8" Tines	$39,900
Bourgault 7200, 2014, 72'	$34,900
Degelman SM7000, 1994	$14,900
Sunflower 6650-48, 2015	$159,000

FENDT 926

2002, 540/65R34 Front Dual, 710/70R38 Rear Dual, 4900 Hrs
$129,900

MF 8680

2012, 480/70R34 Front, 520/85R46 Rear Duals, 950 Hrs
$169,900

SUNFLOWER 6650-48

2015
$159,000

BOURGAULT 5810

2011, 62', 10" Space, MRB III Updated, New Style Dbl Shoot, 3.5" Steel Packers
$109,900

TOP AIR TA2400

2007
$59,900

CASE IH 2588

2007, W/2015 Case IH PU Header, 2061 Hrs
$99,000

www.agworld.cc
- Lots of photos. Mobile-ready.

FULL LIST

Call us before you buy: 306-864-2200

Randy Porter	Lyle Mack	Steve Gamble	Jordan Barnett
H: 306-864-2579	H: 306-752-2954	C: 306-276-7057	C: 306-921-3346
C: 306-864-7666	C: 306-921-6844		

AWE AG WORLD EQUIPMENT
Kinistino, SK

Update on Bourgault Facility at Albury, NSW

Bourgault Facility at Albury, NSW

Bourgault Australia has been in their new Eastern Seaboard site situated near Albury, NSW for about 3 years, and never looked back. This move improved Bourgault's location with immediate access to an established distribution hub with national transport infrastructure and air freight facilities for the transport of equipment to and from the site, while still maintaining a central location in the grain growing regions of Eastern Australia. The state-of-the-art facility sits on 16 ha (40 ac), providing Bourgault Australia service to Queensland, New South Wales, Victoria and South Australia markets. Recently, the Albury site ran the world first prototype testing program for the new Bourgault Frame Mounted Seeders (FMS). Results from evaluations conducted in this region will refine the FMS product to the benefit of new customers around the globe.

Investing in the Future

Bourgault is committed to maintaining control of our business and future. This allows us to stay true to our rural roots and adjust quickly and effectively as farmer's needs change. The significant investment made in research, development, and service over the last several years underlines Bourgault's conviction in the resilience of farmers and in the future of agriculture. We look forward to continue offering the most advanced and effective seeding systems for many years to come. ■

by Jason Kirsch
Bourgault Marketing Team Leader

Targeting
LOW CANOLA SEEDING RATES

If you are a canola grower, high seed cost is a major input expense for your operation. To control these costs you go to great lengths to set your seeding rate and thoroughly calibrate your seeder to make certain that you do not over apply. You also check over the performance of the drill and monitor your operating speed to ensure seed placement is accurate. Because every dollar of that precious canola seed counts you are focused on doing a great job of seeding it and monitoring the crop's progress throughout the growing season.

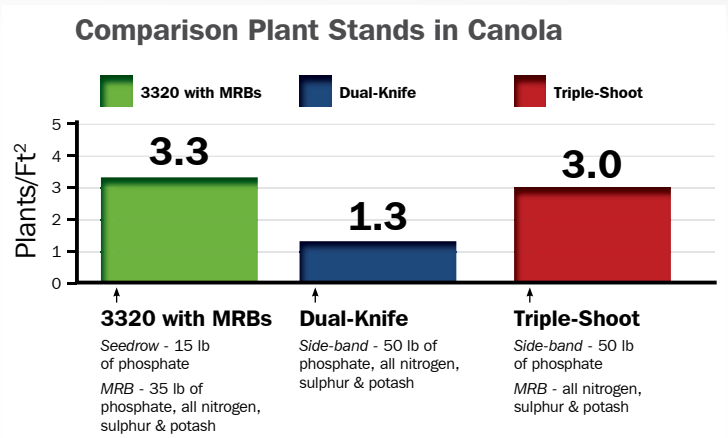
There are things that you can control in your farming operation and things that you cannot; with the amount of rainfall being one of those things that you cannot. In 2019, there were many areas that received their first substantial rainfall in the latter part of June, or even later. Many producers experienced poor and delayed emergence even though the seeding operation was carried out as planned. The variance in emergence from hill tops to low spots resulted in many fields having 2, 3 or more "different" crops growing within the same field. These late emerging and poor developing crops led to a later harvest and in many cases, increased costs and reduced revenues. The primary question here being - was the delayed emergence a result of limited moisture only, or, was there a combined effect of limited moisture and fertilizer toxicity/desiccation?

This past season, the Bourgault Agronomy Team had the opportunity to explore this question first hand. Various canola trials were designed comparing application rates, fertilizer placements and seeding systems. Our large scale trials and regular production crops suffered under the same ill effects as other producers. Thus, the findings from the 2019 trials provided some good insight into which seeding system and practices will achieve the best results possible in challenging conditions.

Trials were conducted with two machines and three configurations:

- A 3320 on 10" spacing equipped with the Mid Row Bander (MRB) application system
- A dual-shank side-banding system on 12" spacing equipped with the MRB application system. This unit was capable of triple-shooting using MRBs or double-shooting placing all the fertilizer in the side-band.
- Canola seed – 4.6 lbs/acre
- Fertility rates in pounds of nutrients:
  - Nitrogen – 140 lbs/acre
  - Phosphate – 50 lbs/acre
  - Sulphur – 30 lbs/acre
  - Potash – 15 lbs/acre
- May 28th seeding date. At the time of seeding, there was low soil moisture with very little appreciable moisture from the time of snow melt until June 15th when the first notable rainfall occurred.

Observations:



3320 & MRBs: Emergence results with the 3320 were the highest. Phosphate was placed in a common split row operation with 15 lbs of phosphate in the seed row and 35 lbs placed in mid row. All of the nitrogen, potash and sulphur was placed mid row.

Dual-Knife, no MRBs: Results indicate that emergence was statistically lower than the 3320. In fact, the dual-knife produced less than half the emergence of the 3320! The dual-shank unit was configured in a typical double-shoot configuration, with all of the fertilizer requirements (N, P, K, S) in the side-band.

(Cont'd on page 37)

REIT-SYD EQUIPMENT LTD.

DAUPHIN, MANITOBA (877) 638-9610 | WWW.REIT-SYDEQUIPMENT.COM

3.9% Financing For 3 Years

2016 JOHN DEERE S690, 357 Eng Hrs, 245 Sep Hrs, Chopper, Extra High Capacity Air Cleaner, Pick Up Head..... .....**$525,000**

2013 JOHN DEERE S680, 1100 Eng Hrs, 750 Sep Hrs, PRWD, Duals, Wide Spaced Tube Radiator, 615P Pick Up Head.....**$277,100**

2008 CASE IH 8010, 2400 Eng Hrs, 1800 Sep Hrs, Chopper, Pick Up Head **$140,000**

(4) 2014 CASE IH WD1903, 528 Eng Hrs, 383 Cut Hrs, 36' Draper, UII Pickup Reel, 6 Batt, Dual Knife, Fore/ Aft, Hyd Tilt, 4 Available.....**$125,000**

2015 JOHN DEERE 9620R, 1378 Hrs, Powershift, IF 800/70R38 Duals, High Flow, Weights **$439,000**

2014 JOHN DEERE 9560R, 2000 Hrs, Powershift, Michelin 520/46 Triples, High Flow, Weights **$378,000**

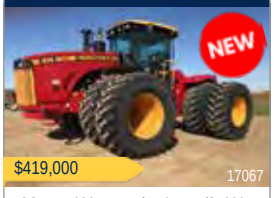
2014 JOHN DEERE 9510RT, 2000 Hrs, Powershift, 30"Tracks, High Flow, 6 SCV's, Weights, DLX Cab, GS3 Touch-screen Display.....**$395,000**

2005 BUHLER VERSATILE 2145, 11,000 Hrs, MFWD, 195 HP, 3PT, PTO, 3895 SLS Loader, Bucket, Grapple **$55,000**

BOURASSA & sons

Partnering with Producers since 1924.

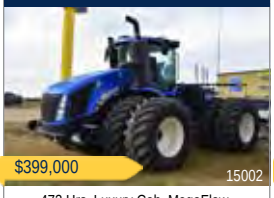
2018 VERSATILE 570 4WD



$419,000 — 17067

QSX15 - 626 Hp Peak, 16 x 4 P/S, 800's, PTO, High Flow, GPS, Deluxe Cab

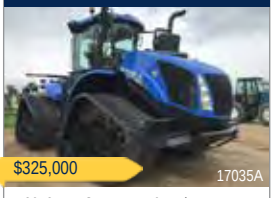
2016 NEW HOLLAND T9.645 HD



$399,000 — 15002

472 Hrs, Luxury Cab, MegaFlow, 6 Remotes, PTO, HID Lights, Ballast Package, 800 Duals

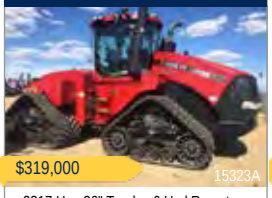
2014 NEW HOLLAND T9.700 SMARTTRAX



$325,000 — 17035A

3058 Hrs, SmartTrax, 6 Hyd Remotes, Dual Hyd Pump, PTO, Diff Lock

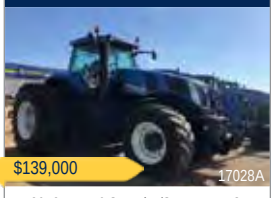
2011 CASE IH STEIGER 600 QUADTRAC



$319,000 — 15323A

3317 Hrs, 36" Tracks, 6 Hyd Remotes, PTO, Luxury Cab, Diff Lock

2011 NEW HOLLAND T8.300



$139,000 — 17028A

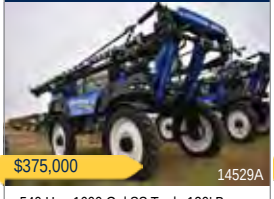
3942 Hrs, 16 Speed P/S, FWA, PTO, Front/Rear 3 PTH, NH Autoguidance

2010 NEW HOLLAND T8020

$119,000 — 17399A

3980 Hrs, 18 Speed P/S, 540/1000 PTO, 4 Hyd Remotes, Deluxe Cab

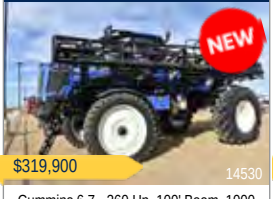
2016 NEW HOLLAND SP.400F



$375,000 — 14529A

540 Hrs, 1600 Gal SS Tank, 120' Boom, Luxury Cab

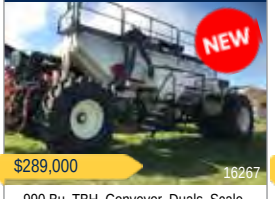
2012 NEW HOLLAND SP.365F



$319,900 — 14530

Cummins 6.7 - 260 Hp, 100' Boom, 1000 Gal Tank, Loaded, 5 year PPP Warranty

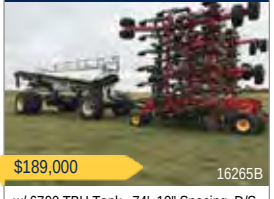
2018 BOURGAULT 7950



$289,000 — 16267

990 Bu, TBH, Conveyor, Duals, Scale, Topcon System, Cameras, Full Warranty

2011 BOURGAULT 3310-74FT-10"



$189,000 — 16265B

w/ 6700 TBH Tank , 74', 10" Spacing, D/S, MRB's, Agtron Blockage

BOURGAULT

Assiniboia 306-642-3826 Radville 306-869-2277

Dual-Knife & MRBs: The triple-shoot system used the same dual-shank seed drill as in the previous test, with all of the phosphate directed to the side-band and all of the nitrogen, potash and sulphur placed in the mid row band. Emergence results were statistically better compared to when nutrients were placed in the side-band.

Comparisons:

When comparing the typical dual-shank arrangement (where the N, K and S are placed in the side-band) to the triple-shoot arrangement (where the N, K and S are placed in the mid row), it is evident that fertilizer placement is extremely important. Since all of the other factors were the same between the two trials, it is reasonable to conclude that the benefits found with the triple-shoot arrangement were due to reduced N and S toxicity and/or desiccation levels on the seed row. Mixing of the seed and fertilizer may also be a contributing factor, however, these trials were on rather forgiving flow-able soil. This data is in line with dual-shank manufacturer's public recommendation to ensure seed safety in dry conditions, by reducing the total amount of fertilizer placed in the side-band.

Conclusion:

Farms that address input costs by reducing canola seeding rates must be extremely diligent in their understanding of how fertilizer placement and moisture conditions affect germination. Minimizing seed mortality in dry conditions becomes paramount to achieving a plant stand that will maximize yield. A 3320 with Mid Row Banders moves the toxic fertilizer source to a safe distance from the seed, maintains seedbed integrity, minimizes soil disturbance and provides packing directly over the seed to conserve available moisture. The emergence differences documented in the Bourgault 2019 trials were statistically better with the 3320 and triple shoot systems, achieving more than twice the plant emergence levels as compared to the dual shank system! If you are targeting low canola seeding rates you need to make every precious canola seed count. That is why it is paramount to avoid seeding systems that contribute to low emergence from fertilizer damage. A Bourgault seeding system with MRBs allows you to reduce seed costs and avoid fertilizer damage, even in challenging conditions. In addition, achieving even and healthy seed germination will support even maturity, superior grade and higher yields.

The results of this study show that even though you cannot control the weather, your choice of the seeding system and practice will minimize your risk of poor emergence due to dry conditions. You strive to control what you can in order to make your farm profitable each year. Bourgault is there to provide the best equipment and practices to help you achieve that control and place your farm in a much improved position when the weather is not cooperative. ■

TARGET SEED DEPTH

TO ACCESS MOISTURE FOR OPTIMAL EMERGENCE.

In many parts of the prairies, the spring of 2019 saw fields that were either dry, or drier, with rains first falling in mid-June or later. In the dry areas, it was easy to see who got the seed into sufficient moisture to establish their crop and who had not. Unfortunately, many operators had not. In all too many cases, in mid-September, the crops were not yet mature and were still vulnerable to being damaged by frost.

When moisture is accessible within the maximum allowable seeding depth of the seed, getting enough moist soil over top of the seed is imperative for successful emergence. This is made easier of course, if there is a rainfall immediately after seeding. Getting sufficient moist soil over top of the seed for achieving establishment without spring rainfall requires that the operator pay attention to the varying moisture conditions throughout the fields and adjusts the seeding depth accordingly. Seeding depth is most critical with the small seeds, with canola being the crop of primary importance given the acres that are seeded each year.

Where sufficient moisture was available at depths that allowed for establishment this past spring, adequate seed depth was not achieved for various reasons:

1. Some farmers have come to expect rainfall after seeding as this has been the trend since the droughts of 2001 and 2002 so they selected a shallow seeding depth;
2. Some farmers have made it a hard and fast “rule” not to seed deep regardless of the conditions. For example, not to seed canola more than 1" deep because in their experience, more often than not, seeding shallow has produced better results for them than seeding deeper, especially with canola;
3. Many farmers now operate independent opener drills and changing the seeding depth on every opener can be very time consuming making it seem impractical to change the seeding depth within a field.
4. With some of the dual-knife drills, going deeper promotes faster seedbed drying out than going shallower because the fertilizer knife creates larger soil lumps;
5. Some drills are simply too light to penetrate into hard soil so they tend to go shallower on the hilltops where the moisture is usually located further down.

Spotty crop emergence from Spring 2019

(Cont'd on page 40)

(Cont'd from page 39)

Another issue is that often farmers were able to successfully deposit the seed into the moisture; however, before the seed could absorb water and break the seed coat, the moisture had disappeared. In other cases, the seed coat was broken, but there was not sufficient moisture to keep the seedling alive.

Seeding fields that have variable topography at one depth will obviously work if rainfall occurs shortly after seeding; however, in years when there is no rainfall for an extended period of time before seeding, the moisture will be located deeper on the hilltops and upper mid slopes than on the lower mid slopes and the low areas. Whenever the moisture level varies greatly from the tops of the hills to the low areas, it is often impossible to get one seeding depth that will work for both areas, unless rainfall occurs shortly after seeding. Therefore, it is recommended that the fields be broken into zones and the seeding depth be adjusted for each of the topographical zones.

The 3320 PHD Quick Depth Adjust provides its owners with the best chance to access sufficient moisture for excellent emergence in dry conditions such as the conditions that were witnessed in 2019.

> The Quick Depth Adjust feature allows the operator to set the depth efficiently…taking only minutes instead of the greatest portion of an hour while, at the same time, eliminating crawling on hands and knees, smacking heads or skinning knuckles and staying clean throughout the process. The QDA was a beneficial option to have in the success of establishing a crop 2019.

shim pack design makes seed depth adjustment easy

> The QDA is a heavier and more robust drill than the competition; the QDA was designed to penetrate to the seed depth required in the harder, drier soil conditions that were present in 2019. The 3320 successfully gets into the moisture vs riding up and placing the seed in the dry soil.

> The 3320 packs directly on the seed *(not on the fertilizer band)* to improve seed to soil contact and seal in the moisture, a key for seeding in dry conditions. The

V-packer wheel option on the 3320 further proved to be the best wheel in these moisture challenged fields. One of the characteristics of many of the independent opener drills is that as the soil gets drier and harder more of the hydraulic pressure is used to try to keep the opener or openers in the soil. This results in the packing pressure being reduced where it is needed the most; on the eroded, dry hilltops. The Bourgault PackMaster™ option maintains a uniform packing pressure and assists in keeping the opener at the specified seeding depth, regardless of how hard the soil is, which can result in better emergence in dry years.

Successful results have been reported by operators who deposited their seeds in moisture that was located well below the soil surface. In 2019, some operators seeded canola up to 2" deep in sandy, light textured soils and obtained good emergence shortly after seeding; whereas, those who stuck to the "no deeper than on inch" rule waited for 5 weeks for most of their canola to emerge.

Photo taken August 8th, 2019

Coincidentally, the Bourgault Agronomy Team conducted a study where canola was seeded at different times throughout the spring and at two different depths. The results indicated that placing the seed at 1½" deep to get sufficient moist soil over top of the seed to achieve emergence in dry conditions provided better results than seeding at ¾" deep. The result was a more even emergence at a deeper depth where the moisture was present in the seed row, equating to quicker and more even flowering and earlier maturity. The photo above is from the Agronomy Team's study.

The photo was taken on August 8th when the canola was coming out of bloom. As you can visibly see, the May 7, 12 and 28 plots that were seeded at 1-½" deep are all more advanced than the plots seeded at ¾" deep. The maturity of the June 7th plot is similar for both depths as rain fell shortly after on June the 14th.

If rainfall occurs shortly after seeding, using one seeding depth for fields with variable topography will clearly work. It can also work if the moisture is right near the soil surface at the time of seeding. However, if there is an extended period without rainfall before seeding and an extended period without rainfall after seeding, as Western Canadian farmers witnessed in the spring of 2019, emergence results were often poor with the hills and upper mid-slopes not emerging until late spring.

With so many variables in play, how a seeding season will play out is impossible to predict. However, regardless of anything else, a seed requires moisture in order to germinate. Depositing the seed into sufficient moisture at the time of seeding is the only way to get even emergence in a dry spring. Being able to easily and quickly adjust the depth with the 3320 QDA allows for adaptability in any seeding condition.

Removing the hesitation to adjust depth because it takes too long or is too difficult allows the decision to be made purely on agronomic factors. ■

Product Distribution Testing Facility

by Robert Fagnou
Bourgault Marketing Specialist

MONITORING THE DISTRIBUTION SYSTEM

ATTEMPTING TO MONITOR CONSISTENCY IN A DYNAMIC ENVIRONMENT.

Although many systems are critical to the overall functionality of your seeding system, few have greater impact or require the same degree of design consideration as the product distribution system.

The air kit operation is a delicate balancing act between:

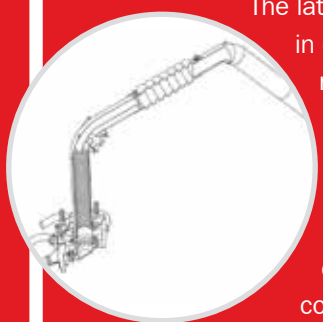
- having enough air to move the product, but not so much that it creates unnecessary component wear, seed bounce, and seed damage;
- operating efficiently, but working within common sizes of commercial components;
- ensuring each configuration performs at the level expected by our customers (both maximum delivery rate and distribution precision).

The design and construction of a product delivery system that evenly distributes a wide range of products at an ever expanding range of rates is no small task! Viewed as the "3rd implement" in the air seeding system, Bourgault is committed to the continuous improvement of the product distribution system in order to maximize product application rates and improve efficiency.

Research & Testing

Bourgault's research and testing of our distribution systems is centered at the main Bourgault R&D facility in St. Brieux, Saskatchewan. Bourgault operates a year-round facility with team members tasked with the evaluation and improvement of our air systems. Samples are collected and measured from every opener, not only on level ground, but also simulating side slopes as well. Tests are repeated on air kit configurations to cover a variety of rates, seeding speeds and product types before being published in fan speed charts and recommended product rate manuals. It is because of this testing and field verifications that Bourgault owners can have confidence in the performance of their product distribution system. Few other organizations have such a thorough and exhaustive air kit testing program as Bourgault.

EvenStream™



The latest and most significant development in our air kit design has been the release of the EvenStream™ Primary distribution system. Numerous trials using Computational Fluid Dynamics (CFD) simulations led to hundreds of physical verification tests in the distribution testing facility. Various combinations of components were tested with a full range of products at a wide range of application rates. Final results confirmed that the updated primary design maintained the same accurate rates and even distribution as our previous design at traditional rates. In addition, the EvenStream™ Primary provided more consistent distribution results at very high rates with the wider seeding implements. Particularly satisfying is that the EvenStream™ achieves excellent distribution uniformity even with urea which was the most problematic product.

After Market Blockage Sensors

Bourgault offers optional blockage sensors designed to work with the X35 for monitoring blocked runs or manifolds. These sensors are designed not to impede the flow of product so capacity or accuracy is not adversely affected. A number of third party blockage sensors are available on the market, each with a unique approach to monitoring the flow of product through the lines. Some sensors require direct contact with the product in order to operate, which requires putting a sensor or impact plate in the air stream. This changes the dynamics of the air kit, affecting the rate and balance of the delivery system as much as monitoring it.

After the hundreds of hours and thousands of trials conducted, Bourgault has an intimate understanding of how even a small and seemingly innocuous change can throw things for a loop. Air kit performance can be impeded by cutting into existing air lines and inserting a sensor that; obstructs air flow and affect air speed, collect debris or seed treatment, and creates a reduction of the overall capacity of the system at a given fan speed. In addition, the restrictions may also change the flow characteristics of the air kit, negatively affect distribution accuracy.

(Cont'd on page 45)

Freeform

Follow us

@FreeformP

@Freeformplastics

@FreeFormPlastics

Innovative tank design which eliminates algae growth.

Save time and effort! Mixing and blending chemicals.

Divide and separate tangled and lodged crop from header.

Adjustable roller width reducing crop loss from wind damage.

freeformplastics.com

Visit our website to view a wide selection of high quality innovative agriculture products and solutions.

306.275.2155

Flow Rate Monitoring

Several manufacturers on the market offer a system which monitors product flow rate and reports variances in the delivery system. Naturally, this was seen as the Holy Grail in the seeding world because this offered real-time insight into how the air kit is performing! As a seeding implement manufacturer, we were very interested in testing and incorporating this technology into our designs.

Our first approach was to work with a current supplier of these flow rate sensors. Unfortunately, testing provided inaccurate results, with readings that were at times completely opposite of the measured samples. It was determined that these sensors can only operate successfully in a planter environment where rates are, in comparison to requirements on the North American Great Plains, extremely low! The results became inconsistent when attempting to monitor seed and fertilizer rates typical of our customer's requirements.

Bourgault continued to explore this technology despite the initial setback. Another flow rate monitoring system was brought in for evaluation in our distribution testing facility. Through vigorous testing and many more hours weighing samples of product, our design team found the following:

- accuracy was not reliable a majority of the time;
- distribution was adversely affected when compared to the same kit without the sensors;
- increased fan speed was required to achieve the same rates as with the same kit not equipped with the sensors.

It was concluded that this monitoring system, as with the first one evaluated was a dependable blockage monitoring system. But when used as a flow rate monitor, the values displayed during operation should be scrutinized.

Stay Tuned

As mentioned earlier, Bourgault continues to develop and incorporate reliable and value-added features with the goal of maximizing the producer's ability to be profitable while also minimizing risk. Expect to see even greater enhancements to the Bourgault product delivery system in the near future. ■

3720

Independent Coulter Drill

THE 3720 INDEPENDENT COULTER DRILL

EX-SEEDS CUSTOMER'S EXPECTATIONS.

When forecasting annual seasonal conditions a high degree of uncertainty is to be expected; the only thing that is for certain is that you might project that you are headed in one direction and you may well end up facing 180 degrees from where you thought you would be. With Mother Nature in the driver's seat, in many years, things only look clear in the rearview mirror! For most operators in the Canadian Prairies and the Great Plains of the northern U.S.A., the growing season of 2019 was testament to this.

Doing the best that we can.

The ability to positively affect your bottom line is determined by managing those parts of the equation that are within your control. Predicting seasonal effects (to the degree that is possible) and attempting to mitigate negative seasonal effects is the best that you can do. In order to expand your effectiveness in challenging seeding conditions, Bourgault offers a wide range of seeding systems, each with their individual focuses and all with options that aid in mitigating negative effects in both dry and wet seasonal conditions.

The 3720 Independent Coulter Drill, equipped with the optional LDx™ (Low Disturbance Scraper), Hi-Flotation tires and Mid Row Bander® Fertilizer Applicators, is a seeding system that can positively affect your outcome (and income) regardless of what Mother Nature hurls your way. And when it comes to seeding, "go-time" means getting as much productivity as possible out of the limited seeding window that exists.

Photo of Jason Zeinstra and his daughter, seeding 2019

Jason Zeinstra farms near Picture Butte, Alberta. Jason's comments on the productivity of the 3720 are as follows: "Overall I was very impressed with the 3720 ICD. It is a very well-built piece of machinery with lots of iron in it. It also folds up into a nice narrow unit to go down the road. We seeded at 6.3 miles per hour on wheat, barley and peas and 5.5 miles per hour on canola. I also like how the seed depth stays consistent in the ground with higher speeds."

Even Emergence is at the Base of Maximizing Your Yield Potential.

Placing the seed precisely and consistently into moisture is at the base of positively affecting your bottom line.

A common design challenge of seeding with a coulter drill is that a considerable amount of weight is required in order to achieve and maintain consistent seed placement; while this challenge is common to coulter systems, it becomes exacerbated in dry conditions. The weight of the 3720, working in conjunction with the PackMaster™ option, aids in placing the seed accurately and consistently in response to the ever-changing soil and moisture conditions. Jason comments that the 3720 "...penetrates into the seedbed and...doesn't float over the hard spots in the field like other disk drills would."

To close the furrow and pack the seed, a specially designed offset shoulder packer wheel is used on the 3720 which delivers the results that customers are looking for.

Jason comments that: "The seed placement is excellent... the ground is packed really well and closed perfectly. The seed is definitely always packed in with good seed-to-soil contact" – which is an imperative in achieving consistent emergence.

Although it sounds simple, precisely placing the seed into moisture and getting good seed to soil contact is really the primary objective of any seeding system. The ability to accurately make these changes "on-the-go" is paramount to getting uniform and even emergence. As the 3720 utilizes independent control on each and every opener, changing the seed depth does require individually setting each opener. Jason added this takes one person 25-30 minutes. The upside of this time investment, however, is the consistent depth control that is achieved with the 3720 ICD.

As you consider your options for your next seeding system, don't hesitate to consider the 3720 ICD to get the job done. With operating widths ranging from 30' to 70', and available row spacings of 7.5", 10" and 12" row spacings, you can tailor the 3720 to meet your specific and demanding requirements. And, as always, optional Bourgault Mid Row Bander Fertilizer Applicators provide for utmost safety in fertilizer placement, virtually eliminating seedling damage when applying high rates of nitrogen fertilizer in a one-pass seeding operation.

Jason Zeinstra attests that overall he is very impressed with the performance of the 3720 ICD. Talk with your local Bourgault dealer to see if the 3720 ICD is a good match for you and your operation. ■

FACTORY TOUR

2019 / 2020

It's that time of year again when we open our doors for winter tours of our industry leading manufacturing facilities! Past visitors were amazed by the advanced equipment, ingenious operations and dedicated team members that make up our St. Brieux location.

Tour dates are available from November to March with major farm show dates avoided. Contact your local Bourgault dealer to find out their tour date schedule!

Go to our Bourgault Youtube channel for a sneak peek. YouTube

BOURGAULT