DELAGE FARMS
CASE STUDY
Delage Farms operates on 28,000 acres near Indian Head, Saskatchewan. With 38 years in operation, they primarily grow canola, wheat, peas and lentils on a three/four year rotation. The Delage family believes in using agricultural innovation and technology to continually improve their operation, with emphasis put on best management techniques and as well as environmental stewardship. Passionate about the future of farming and the agricultural industry, they strive to create a safe and rewarding environment for their employees.
THE CHALLENGE

Delage Farms utilizes a large equipment fleet with multiple combines, grain carts and supporting vehicles. This results in the need for more seasonal operators, particularly during harvest season. Despite having many seasoned hands on board, Delage wanted to increase the efficiency of their operations and reduce the time to complete harvest. They believed improving their in-field coordination and communication was part of the solution.

Having seen the benefits of planning on improving other aspects of their farm, Delage thought a detailed plan that was easy to communicate and implement would allow their team to be more organized and therefore, more productive.
Launch Pad technology peaked the interest of Delage Farms during a winter farm show. A key point of interest in using the system was due to Launch Pad’s ability to pre-plan operations resulting in pre-set guidance lines which would be loaded into their New Holland machines before anyone went to the field. This resulted in operators simply picking the pre-loaded line instead of creating, sharing and coordinating lines on the edge of the field. From previous experience, Delage Farms found that creating and sharing lines on their New Holland monitors often created confusion and lots of mistakes in the field. They considered various alternatives, but opted to onboard Verge Agriculture’s, Launch Pad farmtech product as it was the only solution allowing for comprehensive pre-planning without a bunch of additional cumbersome plug-ins or interfaces.

“We pride ourselves on being great at what we do. We knew that our in-field management in previous years was always good; but using Launch Pad to plan our harvest this year took us from great to exceptional.”

- Janel Delage
Delage started off with Launch Pad by showing operators the detailed planning of each field operation. When a Verge Ag product expert started showing operators the impact of potential angles on time and efficiency, they were a bit skeptical about the outcome of taking a different approach to the field. Wondering if it would be better than the typical 0 or 90 degrees following the longest edge.

When met with the suggestion of 7 degrees, Delage wasn’t sure that a minor adjustment such as this would have such a large impact, or any impact at all for that matter. However, once implemented they found that there was far less deadheading, the setup time on a new field was almost zero, the straw spread was better, and the change in angle allowed the crop to lay in a different position than the previous year. Even on a dry year, taking the new angle across the sprayer track allowed them to pick up the crop easier.

After seeing the immediate impact of planning, using their own farm’s data in 2020, Delage now utilizes Launch to determine the best plan for each field’s particular shape and size based on current and historical field data.

A slightly different approach:
Efficient Execution:

Path planning has allowed for a much more efficient harvest operation. The Delage team has increased the average acres each machine harvested in a day while removing the confusion and frustration of radio chatter from their nine combines trying to coordinate on the fly. Delage stated that “Launch Pad allows them to just do their job”. Implementing Launch Pad resulted in meaningful reductions in man-hours, machine time, in-field confusion and fuel consumption.

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Work Rate</td>
<td>8.2 acres / hour / machine</td>
<td>9.3 acres / hour / machine</td>
<td>13% improvement resulting in an extra 10 acres every operating hour of harvest.</td>
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<tr>
<td>Average Speed</td>
<td>3.0 mph</td>
<td>2.85 mph</td>
<td>5% reduction</td>
</tr>
<tr>
<td>Total Harvest Hours</td>
<td>3,630.26</td>
<td>3,353</td>
<td>277.26 less separator hours</td>
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When compared to 2019, Delage saw a 13% increase in the number of acres harvested by each machine every hour they were working even with a drop in average speed. Overall, they completed harvest with almost 300 less separator hours in 2020, representing a $67,000 savings (based on provincial average operating cost calculations) or the ability to add more land without expanding the equipment fleet.

The improvements were also seen across the fleet with the most efficient combine improving from 1.24 gallons of fuel/harvested acre in 2019 to 0.98 gallons of fuel/harvested acre in 2020.
Irregular Success:

Fields with irregular shapes always proved to be a challenge for Delage, prior to using Launch Pad. However, once the system was implemented, Delage operators found that the more irregular the shape of the field or the more obstacles (standing water, rock piles, potholes) to overcome, the even more impressive the benefit from using Launch Pad’s planning and analytics software proved to be. Odd-shaped fields were harvested in half the time previous.

Square fields also saw benefits from reduced time required to coordinate and manage the crew, allowing everyone to simply get started as soon as a machine arrived at a field.

Attainable Accuracy, Compounding Results

The Delage team started their 2020 crop year (seeding and spraying) with field boundaries they had used in previous years and planning each operation as a separate task. After utilizing Verge’s high precision tool, Launch Pad, during harvest they began unlocking the value of better operational planning.

They have now updated and improved the accuracy of all of their field maps and are looking forward to improving efficiencies of their field operations for a full year’s production cycle to unlock even greater efficiencies across their entire farm in 2021.