# MacDon<sup>®</sup> The People • The Passion • The Product **PERFORMANCE**

# It all adds up

Fourth generation Indiana farmer Ron Small ran the numbers and chose the MacDon FlexDraper<sup>®.</sup>

#### Home and Native Land

Since 1988 the Blight family has grown native grasses on their Manitoba farm.

#### **Recovery Method**

The Carlsons now know that when a crop is down, it's definitely not out.

#### World-Class Parts Distribution

Delivering Performance Parts to dealers and customers around the world.

Spring 2017 Issue: 22

### MacDon<sup>®</sup> The People • The Passion • The Product PERFORMANCE

#### Get MacDon Performance Free!

To register for a free subscription to Performance, or remove your name from our mailing list, go to MacDon.com, or call (204) 885-5590.

### Contents

- **3** Fourth generation Indiana farmer Ron Small ran the numbers and chose the MacDon FlexDraper<sup>®.</sup>
- **6** Since 1988 the Blight family has grown native grasses on their Manitoba farm.
- **10** The Carlsons now know that when a crop is down, it's definitely not out.
- 14 Delivering Performance Parts to dealers and customers around the world.





:\_Ltd @MacDonMarketing



#### Performance is a Publication of MacDon Industries Ltd.

All materials copyright of MacDon Industries Ltd. For reprint permission please contact:

#### MacDon Industries Ltd.

680 Moray Street Winnipeg, Manitoba, Canada R3J 3S3 t. (204) 885 5590 f. (204) 832 7749

#### MacDon, Inc.

10708 N. Pomona Avenue Kansas City, Missouri, United States 64153-1924 t. (816) 891 7313 f. (816) 891 7323

#### MacDon Australia Pty. Ltd.

A.C.N. 079 393 721 P.O. Box 103 Somerton, Victoria, Australia 3062 54 National Boulevard, Campbellfield, Victoria, Australia 3061 t. +61 3 8301 1911 f. +61 3 8301 1912

#### MacDon Brasil Agribusiness Ltda.

Rua Grã Nicco, 113, sala 202, B. 02 Mossunguê, Curitiba, Paraná CEP 81200-200 Brasil t. +55 41 2101 1713 f. +55 41 2101 1699

#### LLC MacDon Russia Ltd.

123317 Moscow, Russia 10 Presnenskaya nab, Block C Floor 5, Office No. 534, Regus Business Centre t. +7 495 775 6971 f. +7 495 967 7600

#### MacDon Enterprises, Inc.

Suite 140 - 5315 Wall Street Madison, Wisconsin, United States 53718 t. (608) 286 1420



# It all adds up

CDON FD70 FLEXDRAPER

Fourth generation Indiana farmer Ron Small ran the numbers and chose the MacDon FlexDraper®

A.04 tonnes per hectare), Small has been playing mad-scientist with new cropping practices to test just how productive a soybean plant can get. Last year his best field weighed in at an incredible 127 bushels per acre (8.54 tonnes per hectare). That's no small feat, but one that has become normal for Ron.

"Every year I get around 130 bushels on about 20% of my acreage, and around 85 or 90 with the rest of my beans," said Small from his farm near Monroe City, in the southwestern part of Indiana. Here, Small crops about 5,000 acres (2023ha) of soybeans and corn, scattered around on about 200 different fields over a 15 mile (24km) radius.

To achieve his heavy-weight yields, Small has been working with a plant nutritionist and pursuing an aggressive course of foliar feeding. He starts with an application of a root enhancer in the spring, then follows up with a complex cocktail of sugars and ocean sourced nutrients applied over several sprayings. Small says it's all part of giving the soybean crop the attention it deserves.

"I think the American farmer has mistreated the soybean plant because corn is the champion here in the Midwest. The soybean is a very fickle plant; it needs special treatment if you are going to get the best results."

Small acknowledges that many farmers are rightly skeptical when they first hear of his yield claims, but says that a visit to his fields quickly erases all doubts.

"Not until they come and see my crop for themselves do they finally believe it. The yields don't lie."

"The 45' (13.7m) becomes part of you, just like driving a car. Now, after running with a 45' (13.7m) head, if I put on a smaller head I just can't stand it."

As word has spread about his production, Small finds himself asked more and more to share his secrets with other farmers, something he is more than happy to do.

"I've been asked to go around and speak, but I tend not to go too far because you are not an expert unless you are within 50 miles (80km) of home. I tell them it's very possible for other farmers to do what I have been doing. But the reaction I sometimes get is they'll say we prefer to go about it the old fashioned way – the way our grandfathers did it – or how their agronomist says to do it. They don't want to be out in their fields spraying four or five times a season. But if you want to double your yields, that's exactly what you have to do."

Perhaps even more remarkable than the volume of Small's soybean yields, is that he is achieving these numbers at the age of 80, a time in life when most farmers are content to putter around the machine shop and leave the heavy work to others.

"I'll never quit farming until the good lord decides to take me. It's a very pleasant thing to be doing. Each day you can look back over the day and say look what I accomplished."

A fourth generation farmer of English-German stock, Small says that he didn't commit to being a farmer full-time until he was almost 30 years old. After graduating as a mechanical engineer from Purdue in 1961, he then taught high-school math and physics in Monroe City for several years, which allowed him to continue helping out his dad on the family farm. During this time he also put his mechanical engineering degree to use taking a lot of product consulting jobs, most notably with one of the world's largest full-line ag equipment manufacturers, a role that he continues to this day with the same company.

"I have a good relationship with their product engineers. We get along because they know that I will tell them the truth. I'd hate for someone to beat around the bush and not really tell me what's wrong with a piece of equipment. Besides, I know my answers are mostly right, I have enough confidence in myself to know that."

Small admits that there was a little friction with the manufacturer back in 2004 when he decided to abandon their flex head for MacDon's all-new FlexDraper® concept.

"When I first saw the FlexDraper<sup>®</sup> I said 'now there's a company that knows what they are doing with heads.' I instantly saw that the FlexDraper's three part frame was the secret of expanding the width of a flex head beyond 35'(10.7m) and still be able to hug the ground, especially in soybeans."

"Of course the manufacturer I was working with didn't like it very much when I purchased that first FlexDraper® to go on their combine. But I said to them, 'a farmer has to go with the machine that gets him the best results, so you had better get on the ball; change now before others get ahead of you, because they will stay ahead of you.' Well MacDon has done that in the manufacturing of heads."

Small considers himself fortunate to be alive at this time in the history of agriculture, when tools like the FlexDraper<sup>®</sup> are available to the farmer.

"I have lived during the best years of agricultural development. The advances that are occurring now have been greater than at any time in our history. Every piece of machinery that I use today has really changed in the last 15 years, and I think that MacDon's FlexDraper<sup>®</sup> is the most tremendous of them all; the most important advance made by any header for the harvesting of grain ever."

"Think of what the FlexDraper® has meant to production. Now with MacDon's 45' (13.7m) head a farmer can easily do 200 acres (81ha) a day with a single combine. Well back 20 years ago it would take four machines to do the same work."

Small recalls when MacDon was first considering building a 45' (13.7m) header, MacDon contacted him to ask if he could use a header that wide, even though they were concerned it might not work on his land.

"They said that they thought my ground was a little too rough for 45' (13.7m). But I said 'no I don't think so, let me take one of them and I can show you.' After I took delivery, they came out to see the job I was doing with it and they couldn't believe how well it worked in these conditions."

He says that even though he knew the 45' (13.7m) would perform, even he was a little surprised how easy the adjustment to a wider head was.

"I had a guy from another big company ride with me and he remarked 'you handle that 45 footer (13.7m) like most people handle a 20 foot (6.1m) head.' I said, 'that's because it doesn't feel any different than a 20' (6.1m) except that it does a much better job so it doesn't take as much work.' The 45' (13.7m) becomes part of you, just like driving a car. Now, after running with a 45' (13.7m) head, if I put on a smaller head I just can't stand it."

Beyond ease of handling, Small says that there are many other things that make Flexdrapers incredibly productive headers for farmers.

 •
 •

 •
 •

 •
 •

 •
 •

 •
 •

Small in one of his fields near Monroe City, IN

"The quality of the cut is as good or better than any machine that I've ever used, even those machines with a narrower width. And, unlike competitive flex heads where the auger jumps up and down and flexes with the heat of the day causing you to constantly break fingers, I never break any fingers with my MacDon."

"You can also run a lot wetter material through it, like when the dew is on in the morning. That's really important in soybeans because you can start an hour earlier than with an auger machine, which would choke the combine if you tried to harvest something that wet. And then in the evenings you can run an extra two hours, so you gain at least three more hours during the day."

"Best of all, you can go a lot faster with a draper head and cover up to 50% more ground in a day and still do a better job than you can with an auger head."

Perhaps more important than performance is the impact a FlexDraper<sup>®</sup> can make on a farm's economics in two key areas: crop recovery and combine resale value.

"The auger itself is the crop loss culprit in an auger head. When a standing bean plant hits that auger the metal from that auger hits the pod and knocks those beans out. The reel then picks them up and either throws them into the combine or over the header onto the ground to be lost forever. With a FlexDraper® they come in and the reel gently touches them and throws them on the belt to be carried into the combine. There is nothing to shatter the bean before it gets into the combine, and therefore you save it." "I figure you can recover up to three bushels more per acre (0.2 tonnes per hectare). Well if those beans are \$10 a bushel, that's \$30 more an acre, or about \$24,000 in just 800 acres (324ha). You can pay for the extra cost of a MacDon FlexDraper® in less than one harvest."

He says that the other big economic gain is a side benefit of being able to harvest significantly faster.

"Spending less time harvesting means your putting less hours on your combine. If you can cut 25% of your hours off you're harvesting at \$300 or \$400 an hour, it really adds up when it comes time to sell or trade in. And, besides that, a farmer doesn't want to spend all his time out there in a combine. It sounds like fun but, hey, we've got other things we need to be doing."

Looking to the future, Small would like to see MacDon continue to push the envelope of header design. He thinks that as impressive as the results of his experiments in plant nutrition have been, that there still remains potential for even more gains.

"I have found that my FlexDrapers can take my 130 bushel beans, but if I go ahead and increase my yield another 50 or 60 bushels – which I think is possible – then I'll probably start having some issues. I would like MacDon to start working on something that can handle even those kind of loads."



### Home and Native Land

Since 1988 the Blight family has grown native grasses on their Manitoba farm.

Kam (left) and Kevin (right) Blight



f you ever find yourself driving on the Canadian Prairies on a frigid January day – you know, the kind of day where the windchill clocks in at -45C (-49F) and exposed flesh freezes in less than a minute – take a moment to think about the first homesteaders to call this land home. Imagine what their first years must have been like. How hard was it to break the land? Get their homes up? Put a crop in the ground? Or gather enough provisions and fuel to survive that first winter, especially on days like that.

"What they did is probably heroic by today's standards," said Kevin Blight whose great-grandfather George homesteaded their Manitoba farm back in 1890. "Today we take so much for granted: electricity, automobiles or power equipment. Not having those three things would bring a lot of people today to their knees if they had to do without them, so imagine homesteading without any of them."

"When we first started growing native grasses there was no book to pick up on how to grow native grasses in Canada, or in Manitoba. Almost everything that we know today we learned through trial and error."

Located a half-mile (0.8km) north of the Trans-Canada Highway, between Winnipeg and Portage la Prairie, the Blight farm remains a family operation with Kevin (56), his brother Kam (43) and father Jim (79) sharing in the duties. Together they farm about 3,200 acres (1295ha) of soybeans, corn, fall rye, spring wheat, plus a final category of crops that would surely have left their great grandfather scratching his head because he would have worked so hard to get rid of them when he first broke the farm's land – native grasses.

The Blights are just one of a handful of native grass growers in Western Canada, as the labor intensive, high risk nature of the crop can shy most farmers away from the business. "Right now for native grasses we are growing green needlegrass, western wheatgrass, switchgrass, big bluestem, blue grama and sideoats grama," said Blight. "We're constantly trying new ones, taking out old ones and just experimenting." Approximately 70% of the Blights' native grass seed is exported to the United States to be sold in blends for use by golf courses, highway departments, reclamation projects, land developers and even homeowners who want to use it as a lawn alternative. The remaining 30% goes to the oil and gas industry, primarily in places like Alberta, where pipeline projects are required to restore the land to its natural state after installing a new line.

"Native grasses shatter very readily on the head so we try to be as gentle as possible with the swather, and that is why we prefer a draper headers."

"We first got into native grasses in 1988. Ducks Unlimited of Manitoba was using native grasses in some of its projects and they were looking for a local producer as they were importing their seed from the United States. At that time there was no local production."

In that first pioneering year the Blights quickly discovered that they had a lot to learn about the crop.

"When we first started growing native grasses there was no book to pick up on how to grow native grasses in Canada, or in Manitoba. Almost everything that we know today we learned through trial and error."

One of the first important lessons they received was that native grasses don't flow like regular grain when combining. When they turned on the combine's unloading auger that first season, nothing came out.

"Native grass seeds are so light and chaffy that they readily bridge in the hopper. They were developed by Mother Nature to float away in the wind or get stuck in the hooves of animals, so they tend to result in a very light sample. They can also have very long tails so what ends up in the hopper looks more like a bird's nest than grain."

"To overcome challenges like that we tend to think outside the box a fair bit. Most of our equipment that we use with the native grasses has been built by us, or modified in some way.



For example, we've had to modify our cleaning equipment to handle the smaller lighter seeds. It's a slower process because in native grasses we talk pounds per acre, not bushels."

Blight says that harvest volume is dependent on the species with some yielding as much as 500 pounds (227kg) an acre, while others might yield only 100 pounds (45kg). Despite the amount, the one constant is that the final product must be completely clean as most of their customers have no tolerance for weeds.

"Some of the weed seeds are almost impossible to separate with the cleaners, so when your customers have a zero tolerance policy you need to have nice clean fields to begin with."

The Blights will start preparing a field two or three years before it is sown as a grass field, burning it off with Roundup both pre-harvest and post-harvest to achieve the zero tolerance benchmark. Once a field is in production, they will even have employees walk a field during swathing to pull anything that doesn't belong. Blight says that the weeds that are the most difficult to control are other grasses such as quackgrass or smooth brome. Beyond the concerns of ensuring a clean field, harvesting stress is amped up with native grasses because of the importance of marketing them as pure live seed.

"If the seed doesn't germinate, you don't get paid. For example, if we have 100 pounds (45kg) of cleaned seed with a germination of 90 and a purity of 90, then we are only going to get paid for 81 pounds (37kg). So we put a lot of consideration into making sure that we don't damage the germination, whether it is by handling the seed or by harvesting it too early."

Knowing precisely when to harvest each one of their grass crops requires constant vigilance, with the Blights checking their fields twice a day when it gets close to harvest.

"Our timing is critical because native grasses can drop their seed in a matter of hours. You want the seed to mature as much as possible, but you don't want to wait too long because if there is a wind you can lose everything. Last year we had a devastating hail storm go through. It went over the farm right at swathing time for one of our varieties, so we lost a good portion of the seed. The hail didn't damage the plant but it



knocked a large percentage of the seed off. A hard wind or rain can do the same thing. It can happen very easily."

Blight admits that they have "tried every manner of harvesting" in their almost 30 years with native grasses.

"We've always come back to swathing because when we straight combine or strip the seed it is more difficult to get the moisture down. By swathing it, even for a couple of days, you can get the moisture down in the seed where it is more manageable in storage. That's really the biggest reason."

To swath such a delicate crop the Blights depend on their two MacDon windrowers (the newest an M155 purchased in 2016) mounted with 20' (6.1m) D Series headers, plus MacDon PW8 pick-up headers on their combines because they have found the PW8's twindraper design works best in native grasses.

"Native grasses shatter very readily on the head so we try to be as gentle as possible with the swather, and that is why we prefer draper headers. We sometimes combine at .9 mph (1.4 kph), so slow that some people on the TransCanada will stop to see if we are actually moving. We get lots of joking remarks regarding our lack of field speed."

Beyond speed, Blight says that some of the prairie grasses are a challenge to harvest simply because of how high they grow.

"When I say tall I'm not exaggerating – they can grow over eight feet (2.4m). The first time I pulled the swather into a grass field that tall I was holding my breath wondering how it was going to work out. I couldn't see anything. The M155 performs very well in a crop that high."

"After many years of harvesting grass seed you learn the little tricks and what works best for each variety. Everything from setting the implement to the timing of what you are doing."

Blight says that working with such unique, time sensitive and finicky crops as native grasses just underscores how important it is to have a swather that you can rely on.

"That's why we moved to the MacDons in the first place. MacDon equipment is built to operate in what we would call tough conditions. More important, MacDon knows what they do well and they build on that. As a customer that gives me a lot of confidence in their product."

"The native grass seed industry is definitely not for the faint of heart. Because it is small acreage crop, it is ineligible for crop insurance. The markets can also swing wildly from one year to the next. On our farm, however, we tend to view risk as an opportunity. Others tend to get into the business and then get out of it."

And for the Blights there is also a deep satisfaction in growing and discovering the traits of plants unaltered by the breeding practices of man.

"We have a lot of respect for many of these species. Some of them are just tremendous grasses – they are very long lived. They are not just trying to produce as much seed as they can in a single season and then be done. They are in it for the long term and are very deep rooted. In fact, we are still cropping fields that were sown in the early 90s, and they are still producing well for us. We really don't know how long they can go, I guess we'll see."

# **Recovery Method**

The Carlsons now know that when a crop is down, it's definitely not out.



he first time the Carlsons tried a MacDon draper header in 2002, they were less than impressed. A late August storm had knocked down some of their milo so they thought they'd give MacDon's new draper concept a try to see if it could recover the crop.

"Nobody around here had draper headers at the time, and we didn't know much about them ourselves," said Dusty Carlson who co-owns the Carlson's Arkansas farm with his father Mike and brother Kirby. "Our dealer brought out a used one for us to demo. We were trying to pick up the milo under just horrible conditions, and the unit performed terribly. We cussed at it and didn't like it all. But it turns out that the header was just worn out."

It wasn't until a few years later when the Carlsons bought a couple of used 21' (6.4m) MacDon draper headers through a farm sale that they first began to appreciate what they could do.

"We initially bought those first heads just to cut our rice, but we quickly started cutting our beans with them as well. We noticed a world of difference between them and the augers we had been using before. The feeding was just so much more uniform and the problems we had with the auger choking the combine were gone."

"In beans, the smooth feeding also allowed us to start cutting at least an hour earlier in the morning and go at least an hour later in the afternoon compared to that table auger." The next year, when MacDon came out with coil springs for the suspension, the Carlsons finally committed to buying new FlexDrapers for the first time – a decision they haven't looked back from.

"We were really happy with how coil springs helped the header float and follow the contour of the ground better. With that model we started using FlexDrapers to cut everything we had – milo, wheat, rice and soybeans.



From there we've just upgraded to bigger sizes as our combines have gotten larger as well."

Older than his brother Kirby by 20 months, Dusty (35) holds both a business and Masters degree in agriculture and describes himself as "a 366 day a year farmer." While Kirby maintains a full-time banking job in Memphis, and helps out on the farm after work and during planting and harvest, the day to day management of the farm is split between Dusty and his father Mike (63).

"After college Kirby chose the banking route and I chose the farming thing because it is what I really enjoy doing. We're still flipping quarters on who made the best decision."

The family farms approximately 8,500 acres (3440ha) of land on the Arkansas side of the Mississippi, about 10 miles northwest of Memphis, Tennessee. Currently, about one quarter of their land are assigned to rice production, and the remainder to soybeans, as low commodity prices have led them to drop milo and wheat from their rotation in recent years.

"You can see the Memphis Bridge and Pyramid from some of our land. It's all within one county, probably 16 or 17 miles (26 or 27km) north to south. Luckily it is in large blocks, so we don't spend too much time on the road."

For harvesting the Carlsons rely on two 35' (10.7m) MacDon FlexDrapers mounted on Case 8230 combines. At time of interview they were awaiting delivery of their third purchase of FlexDrapers.

"Before we started using FlexDrapers we used to have to purchase two types of headers; rice headers, which were rigid auger types, and wider table augers for our beans. Now we only have the one type of header that we use for our entire operation." More than just eliminating the cost of maintaining a second set of headers, Carlson says that their FD75s provide unique advantages for the harvesting of their beans and rice respectively.

"In beans, the smooth feeding of our FD75s have allowed us to increase our header width from 30' (9.1m) to 35' (10.7m). This has allowed us to maintain high productivity with our combines, while also reducing our speed so that we can do a better job cutting."

Carlson says that some may question the need for a flex head given that most fields in their area are flat and precision leveled.

"We have about 1,000 acres (405ha) that lie near the river behind a levee where there is enough contour so that a flex head is needed. We also tend to plant right up to the road on all of our fields, so we need that extra little bit of flex to help us get all of our crop, especially our soybeans. These Flexdrapers have allowed us to recover crop that we might not have gotten with our previous headers."

Carlson reports that their FlexDrapers have also performed well in the muddy conditions that the area is known for, mostly the result of late summer storms that can blow up from the Gulf of Mexico.

"You hear about people with other headers that, when it gets too muddy, they start pushing mud or pushing leaves thanks to too much ground pressure. But with the way the MacDon header is set up, we have never had a problem with them in the mud."

"Before we started using FlexDrapers we used to have to purchase two types of headers; rice headers, which were rigid auger types, and wider table augers for our beans. Now we only have the one type of header that we use for our entire operation."

In rice the FlexDraper's advantages are, perhaps, even more significant.

"The primary thing the FlexDrapers do over the auger is give us a consistent flow in rice, so the combine doesn't slug anymore, even when we're picking up more residue because we're cutting on the ground to pick-up downed crop. With these FlexDrapers the combine's RPM stay up so we're no longer losing grain out the back."

Even more impressive for the Carlsons is how their FlexDrapers are letting them get more crop after storms have lodged their rice.

"With our previous augers, we'd be choking our combine and burning belts when our rice was on the ground. We'd have to go very slow and still only be getting, at best, 75% recovery. But not anymore. These FD75s let us put the reel almost as far as it will go forward and down on the ground and still have our header six to eight inches (15cm to 20cm) higher, letting us pick up the rice and feed it into the combine. We have been in situations where our rice is laying just an inch off the ground and they have performed for us. In downed crop our efficiency has increased by at least 300%. More important, we're now getting 99% of the crop. It's a win-win all around."







n the fall of 2015 MacDon Industries Ltd. opened of its new state of the art Parts Distribution Centre (PDC) in Winnipeg, Manitoba. "Our goal is to provide World Class Parts Services for all owners of MacDon manufactured equipment wherever they are located in the world. The new PDC is the key to serving our MacDon parts distribution network in Canada, United States, Australia, Europe, Russia, Brazil, and other parts of the world, allowing us to achieve this goal," says Jason Klassen, Vice President Global Parts Operations at MacDon.

Ultimately the goal of the PDC is to deliver MacDon Performance Parts to dealers and customers quickly and efficiently, and the PDC is built to fulfill that commitment. "We are significantly more efficient in the new PDC," says Klassen. "Capacity has increased threefold compared to our previous warehouse distribution center." Built specifically with customers and dealers in mind, the unique, 110,700-square-foot, facility makes great use of the latest in warehouse design and technologies.

#### THE PARTS DISTRIBUTION CENTRE FEATURES:

- With 40 feet of clear height, there are 3.95 million cubic feet of usable space for shelving optimizing storage and accessibility for parts inventory.
- Space utilization and efficiency is maximized with narrow aisles using wire-guided forklift equipment.
- 110,700 Square Feet of Warehouse
- 12 Bay Loading Dock capacity speeds receiving and shipping capabilities for the best possible service.
- Full implementation of integrated Warehouse Management System provides better inventory management, tracking and warehouse efficiency.

### **World-Class Parts Distribution**

Delivering Performance Parts to dealers and customers around the world.







#### No Mow Limitations!

Don't be limited by transport width. In just 30 seconds, our Road Friendly Transport option transforms both our 13 and 16 foot R1 to a narrow 9 foot wide transport. This allows for quick, safe travel to, from, and between fields. Once you get there, our all new forward mounted cutterbar design provides a cleaner, smoother cut than ever before, and it's backed by a 3 Year Cutterbar Warranty. No matter what the harvest situation or conditioning need, the R1 lays down well-formed, well-conditioned windrows with the industry's widest roll (129") and four interchangeable conditioning options. Don't limit your harvesting possibilities, find out why more top producers trust MacDon for their harvest.

Call your local MacDon dealer today or see it in action at MacDon.com

#### **R1** Pull-Type Disc Mower

The Harvesting Specialists. MacDon

Trademarks of products are the marks of their respective manufacturers and/or distributors. Printed in Canada. 04/2017 Part #214368