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SEEDS OF DEVELOPMENT

Ben VanDyke knows that growing and harvesting grass seed takes a specific combination of climate and equipment. That's why he's glad MacDon takes the time to develop products to help his operation.

Need for In-Field Speed!

Manuel Cabral of Costa View Farms has a lot of ground to cover; MacDon helps him do it, covering nearly 400 acres (162 hectares) in a day.

Tight Operation.

Stéphane Gaudillier is getting the job done with the MacDon M1170NT Windrower despite France's strict transport rules.

Performance Minute

Increasing overall header performance and longevity of rotary header cutting components.

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BEN VANDYKE



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SEEDS OF DEVELOPMENT

Ben VanDyke knows that growing and harvesting grass seed takes a specific combination of climate and equipment. That's why he's glad MacDon takes the time to develop products to help his operation.

A few years ago, Ben VanDyke, along with a handful of other farmers from the Willamette Valley in Oregon, made the trek to Winnipeg, Manitoba, to visit the MacDon factory. In addition to the factory tour (and, of course, some MacDon hospitality), VanDyke and the other members of the group were there to provide some feedback and suggestions for a new header in development.

"MacDon took 10 or 12 of us here from the valley and brought us over and just asked us a million questions about what it would look like to develop this header. So we were excited when it finally came out," says VanDyke, 42. "I think it'll be a great resource in the valley here."

It was all the more special when VanDyke and his team were able to use the new R216 Grass Seed Special (GSS) header for the first time, knowing their thoughts and feedback helped guide the design of the machine. VanDyke feels the MacDon team really listened to what the customers wanted with the header, which was especially impactful given the small size of his market.

"We spent over a half a day where you had the engineers, product support staff, and other guys just sitting there, first listening to us and then picking our brains about what we want in that product. And just

to have that amount of feedback... I know they were trying to figure out what profit share that would look like and how many machines this would look like. We are a small market, we know that, and a lot of times it's tough to get service out of big manufacturers, because it is such a specialty. But to have them pour that much time into this was great for us, and I hope in the long run it pays out for MacDon."

Grass seed is a huge component of VanDyke's business. The family farm – which was founded by his grandfather, Bud VanDyke a few years after the end of World War II – also grows blueberries, hazelnuts, wheat, straw,

"MacDon took 10 or 12 of us here from the valley and brought us over and asked us a million questions about developing this header... first listening to us and then picking our brains about what we want in that product."



clover seed; and right now, radish seed and grass seed makes up the majority of the farm's production.

"(The) Willamette Valley runs pretty much from Portland to Eugene, Oregon, and it's a very diversified cropping region," explains VanDyke. According to the Oregon Department of Agriculture, the region grows more than 220 different products.

"We have a very mild climate, very mild winters, and our valley has been known as kind of the grass seed capital of the world. In the type of farming we do, we grow a lot of grass seed, turf-type grasses to plant in lawns or sod farms or golf courses, all that stuff. That is the bread and butter of our farm," he explains.

Considering the Willamette Valley is only about 100 km (62 miles) away from the coast of the Pacific Ocean, the climate is not as wet as one might assume. VanDyke explains his area averages 106-114 cm (42-45 inches) of rain a year, but that is restricted to the winter months. The summers are almost bone dry, and it is this unique pattern that determines what crops will be most successful.

"It's very seasonal, very wet in the winter but a warm, dry summer, no thunderstorms. When the rain shuts off come mid-to-late June, it is off till October. That's why we can grow what we grow. Grass seed takes a climate where it's very low humidity during harvest. And so that's why it works here."

Grass seed can be a challenging crop to harvest for numerous reasons – not only does it require very specific growing conditions, it also requires equally specific cutting conditions. VanDyke says they are very limited in how and when they can harvest the seed, and that because of the condensed timeline, it can be a very "intense" time.

"Grass seed has to be moved very gently from stock to the ground, because it thrashes off the top of the seed head. We windrow at night when the dew's on in the cool weather; everything's done from about midnight to about seven or eight in the morning, we have a really small window to harvest."

"We wait until the seed moisture on that head is ripe enough to be a mature seed, but it needs to also not shatter because if we leave it staying on the stock, it'll shatter. And so that window to cut is about 10 to 14 days. Each variety luckily ripens a little bit differently in different fields and different field locations, but it's a pretty intense part of our cropping system, trying to figure out the right night or nights to cut to

"Wet in the winter but a warm, dry summer, no thunderstorms. When the rain shuts off in June, it is off till October. That's why we can grow what we grow. Grass seed takes a climate with very low humidity during harvest."

get that on the ground with as minimal seed loss as we can get and still get the best germination out of the grass. It's an intense process."

So having new R216 GSS headers on the job last season was a welcome addition. VanDyke runs two R216 GSS headers, which he says replaced three sickle bar machines. ("We actually are way over machined for what most people think you should have," laughs VanDyke.) The R216 series is known for its even flow and wider operating range of ground speeds and was designed to provide a clean cut no matter what the crop or field condition. VanDyke was very impressed with the header's performance.

"We can run almost twice as fast with these disc heads as we could with the sickle bar head. And so the experience was, for the most part, good. We like to modify and change things structurally on the header, but there's nothing that we think needs to be changed.

"We had a good experience for the quality of its cut job, and the way it laid its windrow was good. Once it lays down, some of the competitor models tend to teepee the row, so it'll leave the seed heads up in the air and exposed and then they kind of rattle and shatter. The MacDon laid a nice flat row."

"The other thing that we noticed, we were worried about picking up the windrow. The stalk's about three- and-a-half, four-feet-long (107 cm to 122 cm), and when it comes in on the belt pickup on the combine header, it can whip. You'll get the tips of your seed heads to whip as they come into the header if it doesn't lay really nice,



"Grass seed has to be moved very gently from stock to the ground because it thrashes off the top of the seed head. We windrow at night when the dew's on in the cool weather; everything's done from about midnight to about seven or eight in the morning."



but this one laid a really nice row that came into the machine very smoothly and went through the machine real nice.”

VanDyke Farms is located in the northern part of Willamette Valley, so the terrain is quite hilly and rolling without many flat fields, which, as VanDyke puts it, creates “its own distinct challenge.” But the R216 GSS was up to the task and handled the tricky terrain without issue.

“For the most part, they handled the hills just fine. Moving the material on a side hill, up or down the hill, to make a good row was just fine. You know, a little power on the hills would be nice, we actually spin them out sometimes on our steepest stuff. But they did fine with that, they actually did better than the sickle machines that we ran. So yeah, the hills weren't a problem,” he says, adding they also tried out auto-steer for the first time and were impressed with the results.

“These were our first ones we've ever put auto-steer on, and so this year was our first experience windrowing with auto-steer but that was a really nice feature because of the creature comfort, we can just get more done, we're consistent. It just made our cut job look more professional. It was a great addition.”

“We had a good experience for the quality of its cut job. Some competitor models tend to teepee the row, leaving the seed heads up in the air and exposed, so they rattle and shatter; the MacDon laid a nice flat row.”

The VanDyke's have been MacDon customers for years and for good reason — not only have they had positive experiences using MacDon machines, VanDyke also has nothing but positive things to say about the sales teams in their region. VanDyke specifically mentions their local salesman, Mike Thompson, from N & S Tractor in Hillsboro, OR, who he says goes above and beyond to make sure every machine is running as it should.

“I can't say enough about Mike Thompson as a salesman for his willingness to be out there and get dirty and make the machine perform like it should. That's just always been his M.O., and that's the way he was trained from the guy ahead of him. His phone's on in the middle of the night, he gets as little sleep as we do during harvest, because he's willing to come make the product work and solve those issues,” he laughs. “We have zero complaints, and it helps being with them for a while because you know everyone within that store and that dealer.” **M**







NEED FOR IN-FIELD SPEED!

Manuel Cabral of Costa View Farms has a lot of ground to cover; MacDon helps him do it, covering nearly 400 acres in a day.

Summers aren't just hot, they shimmer in the fields around Madera in California's Central Valley. From June through September machine operators can look forward to average daily highs of 31°C (88°F), with afternoons in July and August the most grueling. Then a machine's air conditioning is really put to the test when the mercury climbs to a sweltering 36°C (97°F) on average, and frequently well over that.

Now, most windrower operators faced with heat like that would likely prefer to start their days early to get ahead of the sun, but that's not the case at Madera's Costa View Farms, a large dairy with about 15,000 head of milking, support and dry stock to feed. Here they will wait until most of the morning's cooler temperatures have dissipated to begin cutting their alfalfa.

"If you cut the alfalfa too early in the day, with the heavy dews that we get here, it tends to test lower quality," says Manuel Cabral, Costa View's Farm Manager. "We have learned over the years that a lot of the plant's energy and nutrients are in that dew, so if we want to maximize nutritional quality, we have to wait for the dew to be completely off and the plant to shut down fully to cut. Unfortunately, that's usually not until around 11:00 am, which gives us a much shorter window to cut than most other dairies around here."

Of course, reducing your harvest day by almost half makes having a fast windrower - both in the field, and between fields - that much more important, and why Cabral says they choose to run MacDon windrowers over anything else.

"I've used other brands in the past, but MacDon windrowers do seem to outrun other machines. In fact, we tested it ourselves when we bought our two new MacDon's last April by demoing another brand against them for a day. MacDon definitely covered a lot more ground and pretty much knocked it out of the park compared to the other machine. I think you can cut at least 15% more in a day with MacDon compared to other brands."

"MacDon definitely covered a lot more ground and pretty much knocked it out of the park compared to the other machine. ...you can cut at least 15% more in a day with MacDon compared to other brands."



Prior to buying two MacDon M1240 Windrowers mounted with R216 Disc headers in 2021, Costa View had been running a couple of MacDon M205s with R1 Disc Headers.

“We ran our previous MacDon’s for about six years and had put a lot of acres on them. We ran them hard and I actually think we probably could have traded them in a little earlier.”

Running their machines hard is an understatement given how much Costa View’s windrowers are asked to cut. In total they cultivate 1,400 acres of alfalfa year round, supplemented by another 3,400 acres (1375 hectares) of winter forage (wheat, oats and ryegrass) all of which is doubled cropped with corn or sudan. They cut everything with just their two windrowers, and they even do some custom cutting on the side.

“We harvest our hay every 26 days, rotated through 14 different fields. That means we’re cutting hay almost every other day throughout the year. Last year alone we put a little over 12,000 acres (4856 Hectares) on each of these new machines. When these machines start moving, they move.”

Cabral says that his two operators, one who is his brother, give their new MacDon’s top marks for their improved road speed (up to 45 km/h/28 mph).

“Last year alone we put a little over 12,000 acres on each of these new machines. When these machines start moving, they move.”

“The furthest we have to travel to one of our fields is about 10 miles (16 km), but we will travel further when we’re custom cutting for another dairy. It helps us a lot that we can travel from one side of the county to the other in just an hour or so.”

His operators have also remarked on how much better the new windrowers handle at speed on the highway thanks to the addition of MacDon’s patented CrossFlex™ Suspension.

“We’ve found that these new machines travel even better than the previous model. They’re more comfortable, easier to control, stop quicker and ride a lot smoother.”

But it is in the field cutting that Cabral and his operators have noticed the largest number of improvements with the new machines. Of course, the ability to move faster tops the list here as well.

“With these new windrowers, we are now able to cut at up to 18mph (30km/h), especially if we are cutting to chop because we’re just doubling the windrow into a pile (using MacDon’s optional Double Windrow Attachment), so consistency doesn’t matter as much. Before we could only cut at 12 mph (19 km/h), so being able to cut a lot faster means that we can harvest more than one field a day if we have to. I’ve been able to do nearly 400 acres (162 hectares) in a 10 hour day.”

“If we are harvesting to bale, however, we usually don’t go nearly as fast because we want to lay the windrow flat and smooth without any clumps so that it can dry out better.”

One feature that they really appreciate on their new windrowers is the ability to have preset configurations (cut height, tilt, and disc speed) for the R2 Disc Header, which can be deployed with the press of a button from the cab. Cabral says that is a big time saver for them as his operators no longer waste time fiddling with adjustments every time they get to a new field.

“We’ve had other machines here, I won’t mention the company name, but it’s like you’re playing a video game pushing all the buttons you need to get the machine set up to where you want for each field. With these new MacDon’s, however, the operator can just hit a button and go.”

“This new header also has sensors so that when you set the float at a certain percentage it automatically adjusts so it is always at that percentage. That kind of automation makes these machines very user friendly and easy to train on.”



“We've found that these new machines travel even better than the previous model. They're more comfortable, easier to control, stop quicker and ride a lot smoother.”

The ability to finely adjust the header's cut angle – from 0° to 8° below horizontal – has proven particularly helpful for Cabral and his operators.

“Having control like that is really important when we are first cutting alfalfa and the roots are really tender. If we scalp a little too low we will actually pull the roots out of the ground, but with these machines we can cut as delicately as we need to and not hurt the crop at all. Alternatively, when we get to our rougher fields we can adjust the float to cut as tough as we want.”

In their winter forages the header has also shone, especially with its ability to lay wide, uniform and thoroughly conditioned windrows.

“The header gives you the option of laying the windrow really wide, which is critical when we are harvesting our ryegrass in January and February. We tend to have a short window between storms at that time of year, perhaps as few as eight days, so being able to lay a wider swath really helps to quicken the dry down time and get that crop out before the next rain.”

Conversely, when they are harvesting their winter forages in the summer, the problem can be too rapid moisture loss in the crop, but here too the new machines have helped.

“The conditions we get here in the summer can make things extra challenging cutting our wheat, which can turn really quickly if it gets too hot. If that happens we will likely have multiple fields that need to be cut instantly or else they will become over dry to chop for silage. These MacDon machines have made it really easy to move extra fast to get to our fields and get them down quickly so that the chopper can pick them up.”


“With these new windrowers, we are now able to cut at up to 18mph, especially if we are cutting to chop because we're just doubling the windrow into a pile... I've been able to do nearly 400 acres in a 10 hour day.”



California's summer heat isn't just tough on their crops, it can also be punishing for their operators as well. But here Cabral says the M1 Series' upgraded cab has performed superbly in keeping his operators comfortable.

"You can only imagine how hot it can get out there. Not only do you have the intense California sun but you also get the heat off of the machine; if your air conditioner isn't very good it can get to 120°F (49°C) in the cab, and then you're just dying. But this new deluxe cab has leather cooled seats and a better air conditioning system to keep you cool. Also, the roomier cab with its bigger roof provides more shade and helps reduce the glare of sunlight coming into the cab."

So impressed has Cabral been with his new MacDon windrowers that he had no hesitation recommending them to a neighbor, who decided to buy one himself after coming over to watch them run.

"I would estimate that about 75% of the dairies around here are using MacDon windrowers now, mostly because they save us a lot of time." 

"The header gives you the option of laying the windrow really wide, which is critical when harvesting ryegrass... A wider swath quickens dry down time and gets that crop out before the next rain."







TIGHT OPERATION.

Stéphane Gaudillier is getting the job done with the MacDon M1170NT Windrower despite France's strict transport rules.

The Jura department in eastern France has been described as the land of cheese, chocolate and wine, but for Stéphane Gaudillier, it's also the land of soybeans, wheat, corn, barley, oats and several other crops he cuts in the area.

Gaudillier farms 247 acres (100 hectares) himself and owns a custom cutting company that cuts an additional 4940 acres (2000 hectares) in the region. "I'm more of a custom cutter than a farmer," he says, adding he is more focused on his cutting and windrowing contracts.

To get these big jobs done, Gaudillier relies on his MacDon windrowers, which includes an M1170NT (Narrow Transport) Windrower.

"MacDon's windrower has a mechanical ground-following system that is reliable and much more reactive, especially while windrowing where we travel at high-speeds."

"I windrow with two self-propelled windrowers, one of which is new this year. I also own an FD125 mounted on a combine and a pick-up header in order to offer a complete windrowing service. I do a lot of windrowing for different reasons. The most frequent reasons is to accelerate maturity, or force the maturity of crops. And in another case, organic crops, the idea is to reduce the amount of weeds and voluntary crops," Gaudillier says.

"For example in this wheat, either alfalfa or clover has grown within it, and there isn't any other solution other than drying it all. The green clover will hinder the thrashing of this mature wheat within the combine."

The M1170NT windrower is a more recent addition to Gaudillier's tool kit. While the M1 has been available in Europe for a few years already, it is completely new to France thanks to the creation of the narrow transport model. The narrow transport (NT) model was developed to comply with transport rules in Europe — including France — which restrict the width of farming machinery as it often needs to drive on very tight, narrow roads while moving from one field to the next if they aren't adjacent.



“When I get asked why this machine and not another, well: reliability, simplicity, and quality of service. For me, MacDon windrowers represent what is most reliable, robust, and comfortable during work.”

The M1170NT allows Gaudillier to navigate those slim spaces in its road-friendly package that is only 347 cm wide (137”), while still being able to deliver full-size harvesting performance and all of the features MacDon customers know and love, such as Dual Direction Steering.

The road speed tops out at a swift 45 km/h (28 mph) which optimizes work time; less time spent driving between fields means more time to spend cutting, though the in-field speed of up to 29 km/h (18 mph) also helps expedite the process on the cutting side



as well. In field mode, the width is 440 cm (173") to take advantage of the industry's best crop clearance that easily tackles high-volume swaths, and the cross flex suspension absorbs impact from uneven terrain resulting in a smooth, quality cut at a quick pace.

Even though Gaudillier is relatively new to the M1770NT, all of the benefits of using this machine were obvious immediately.

"Why did I choose MacDon? That's pretty simple, they're the only manufacturer that have a model that is certified for French roads. The other reason is that it's simple yet robust equipment," he says.


"My drivers are always fighting over who gets the MacDon."

"MacDon's windrower has a mechanical ground-following system that is reliable and much more reactive, especially while windrowing where we travel at high-speeds. On the M1, we have great cabin comfort, a computer display [that's] very easy to use and quite practical. They have all functions present on the arm rest. I hope to be able to windrow this year 2471 acres (1000 hectares) with this machine," Gaudillier says.

"When I get asked why this machine and not another, well: reliability, simplicity, and quality of service. For me, MacDon windrowers represent what is most reliable, robust, and comfortable during work."

As a MacDon customer who is familiar with multiple products, Gaudillier knows he can count on his windrowers and drapers to solve any problem he may have and will not only maintain but increase productivity no matter the weather or field condition.

"What I appreciate with MacDon equipment is their simplicity, their robustness, and in the worst conditions, we save a lot of fatigue. We finish our workdays a lot less tired than when using a standard header. Going from one header to the other, we can tell the difference immediately," explains Gaudillier.

"My drivers are always fighting over who gets the MacDon." 







TECH TIPS

Increasing overall header performance and longevity of rotary header cutting components.

Regularly cleaning the internal components of a rotary header will help increase crop cut quality, overall header performance, and increase the longevity of all components that contact the crop. This is especially true for the cutting components (knives, discs, accelerators, hardware, etc.) of a rotary header.

Excessive buildup of crop fluids and soil act like a grinding wheel on the header components. The removal of crop/soil build up in the header can be done using a combination of compressed air, pressurized water, and physically scraping the internal components. This method works best if done in a timely manner before the combination of crop and soil build up dries to the header. Some situations may require more frequent cleaning to maintain cut quality and crop feeding.



A close-up photograph of a MacDon R216 SP harvester. The machine is red and black, with the MacDon logo and model name clearly visible. It features a large, treaded tire on the right side and various hydraulic hoses and components. The background shows a field of green grass under a cloudy sky.

MacDon

R216 SP

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A red MacDon R2 Series harrow is shown in a field of tall grass. The harrow is positioned diagonally across the frame, with its front end in the foreground and its rear end extending towards the background. The sky is overcast and grey. The MacDon logo is visible on the side of the harrow's frame.

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