

MAIZE IN TIME

The Chrono can achieve speeds of up to 18kph, while accurately placing seed, fertiliser and micro-granules based on section control and variable rate maps.



Maschio Gaspardo's Chrono planter is the latest machinery addition for one growing South West contracting firm.

Since 2003, Matt Kidner has developed a forage based contracting operation alongside his father, Simon, and his brothers Johnny and Jason. Built out of the 150 acre farm Simon took over from his father in 2001, where the family take 550 beef cattle through to finish, Kinder Agricultural Contractors now forages 10,000 acres of grass each year, harvests around 2800 acres of maize, as well as up to 700 acres of wholecrop, and bales upwards of 70,000 round and large square bales.

"We'd purchased a John Deere 6920s in 2003 and started helping out local contractors," Matt says. "A year later, one of the operators in the area decided to retire and we were able to buy their round baler and combination drill and start offering contract work."

Very quickly, the family found a market for forage work, making more than 10,000 round bales that first year, which steadily increased to 15,000 a year. Then, in 2005, the company expanded further with the introduction of large square balers.

"We've been incredibly lucky because we've been able to expand the business each year through word of mouth. Each year we were able to add to the large square baler fleet until we reached five in total, three 1290s and one 890 form Krone, plus one 870 from New Holland" explains Matt.

The decision to invest in forage harvesters was made in 2008, after speaking to customers and ensuring an acreage that would justify the investment, they purchased a second-hand New Holland FX40. "That first year, we chopped 3000 acres and two years later we traded the FX in against an FR9060 and ran for another two seasons with that," he says.

In 2014, the company was approached to chop 1500 acres of grass and an additional 700 acres of maize. By this time, they had moved to a Claas Jaguar 950, impressed with the machine itself and the backup provided by Claas Western, and decided to purchase a second 950 machine to handle the increased workload. This forethought would pay off when the next year another 1500 acres of grass came through.



Matt Kidner in front of an early maturing maize crop.

"I know a lot of people would use our acreage to justify moving to larger machines, but the two 950s give us a lot of flexibility," Matt explains. "If we're a larger field, we can put both units which gives a greater capacity than one bigger machine, but it also means we can send two teams out to different farms if the weather is right and there's a lot of crop to handle."

The rest of the machinery fleet includes seven Fendt tractors and two John Deeres, backed up by Lister Wilder and Smart Agricultural Services, respectively. The tractors are kept for four years with extended warranties and service packages. Also, on farm are two JCB 419s loading shovels for clamp work and, new this year, a Claas Montana 630 combine.

"I believe it takes around ten years for a business to build a reputation," Matt says. "We've always tried to forward thinking and be over-equipped so that we can work quickly and efficiently for our customers. We have two full-time operators and another six part time workers during peak seasons, but we always make sure one of the family is on each team. The buck stops with us, and its important that we're there to support our team and the customers alike."

High Speed Planting

When the company first expanded into forage harvesting, they also looked into offering maize planting and purchased a 6-row 3005T Maschio Gaspardo from Claas Western. "At the time, the six row Gaspardo was the drill to have, and we had some experience with the dealer so we were confident in the service we would receive."

As maize sowing grew to 1500 acres each year, in 2014, they added an 8-row Renata machine to the fleet, and two years ago were approached by Maschio Gaspardo to trial a pre-production 8-row model of the latest Chrono high-speed planter.

According to Dominic Burt, territory manager for Maschio Gaspardo, the Chrono retains many of the components from the previous Renata unit but features all-new drilling units to facilitate sowing speeds up to 18kph.

"We use a dual system for singulation and planting, with a classic vacuum pulling seeds onto the seeding plate. This is positioned at a 15-degree angle to ensuring that seeds move into the chute without friction. Instead of allowing gravity to move the kernel to the ground, a lobe compressor pumps pressurised air into the chute, boosting the injection speed and the accuracy of the seed placement."

This is the key selling point of the machine. The increased speed of the seed ensures a consistent sowing depth, when combined with the pneumatic downward pressure, as well as exact 75cm spacing even at high speeds. It is a feature that particularly impressed Matt.

"It was a real benefit earlier this year. The weather was so dry, but we were able to sow at 4 inches deep to make sure there was enough moisture available for the crop. It also meant that the crop had a deeper root system, so it was more secure, and the ground was less vulnerable to erosion.

"Not only that, we could consistently work at around 14 or 15kph and, in the larger fields, even reached 18kph, with no noticeable drop in accuracy. Being able to cover more ground to a high standard means we can deal with catchy seasons and only plant when the conditions are right."

The Chrono is adjusted through the tractor ISOBUS terminal,



Controlled electronically, the section control system can keep up with the fast forward speeds and is controlled via the tractor's own ISOBUS-compatible terminal.

with individual section control across the working width and variable rate application for seed, fertiliser, and micro-granules. Operators can see this in real-time with colour coded maps on the in-cab terminal for full traceability, and wear is reduced due to the use of brushless electric motors within the planting units.

"You can really see the difference on the headlands and in any awkwardly shaped fields," Matt notes. "Even at the higher speeds, the section control works well, with clean breaks at the end of a row. With every plant spaced out properly, you can see the difference; the stalks are stronger, and the crops are taller overall."

Matt also adds that the machine has excelled in different planting conditions, with a front cutting disc capable of handling high levels of trash. "Some of our customers have a minimum tillage regime and the Chrono has managed all of it. You could even plant direct in some conditions. We never found any seeds on the soil surface."

As a pre-production model, Mr Kidner's Chrono differs slightly from machines that operators can expect to see in the UK. The fertiliser system used here is mechanical and therefore could not be linked to the ISOBUS variable rate, although the electronic micro-granular applicator could. It is also equipped with a compressor to power the pneumatic suspension, while retail units will have a direct line to the tractor's own air brake system.

With one season under their belt, the Kidner family is now looking to replace their 6-row machine with a mounted Chrono unit. "With two high speed drills, we'll be able to maximise our output and the 6-row will be useful for some of the smaller fields we operate in." ■



The singulation system uses a fan-driven vacuum to hold the seeds onto the plastic disc before they are gravity fed into the chute. Once here, a pneumatic system pushes them to the seeding disc. It's a fast acting system to deal with high forward speeds.