

BUSINESS

TRENDS By Patsy Hunter

Time to think robotics!

AFTER decades of relying on the good old fashioned plough, a move towards regenerative farming, robotics and data-based decisions is creating an increased demand for low disturbance tillage.

As many look to embrace modern techniques, machinery dealers are seeing a growing interest in equipment that protects the soil and leaves the structure intact.

"After root crops or pigs there is certainly a place for ploughing to reset the land, but many growers are moving towards regenerative systems," said Gavin Pell, managing director at Chandlers Farm Equipment.

"Some modern sub-soilers have very low surface disturbance and can be used to alleviate compaction without disturbing the soil profile," he said adding that with the HE-VA Stealth, a disc makes a cut and a leg passes through, therefore the soil profile is not inverted.

Mr Pell said growers using min till or a no till regime, are increasingly looking for effective, low disturbance subsoiling to loosen and fracture the medium depth subsoil to relieve compaction, assist drainage, aeration, nitrogen uptake and encourage crop rooting.

Very shallow surface cultivators are also proving popular for stale seedbeds, as they promote weed seeds to chit, with some growers now using cultivators instead of glyphosate as the cost of chemicals soars.

With less and lighter cultivation being carried out, there is a matching trend away from the extra large tractors, according to some manufacturers too.

The new 260-280hp Gen7 Fendt 700 series tractor introduces the VarioGrip tyre pressure regulation system into this lower hp sector. This reduces soil compaction by lowering tyre pressures in the field, while returning to a safe pressure for roadwork

needed between fields.

Dani Bond, general manager at Mzuri, added: "We are increasingly seeing farmers who are looking for low disturbance direct drills that don't compromise on quality of the seedbed, in particular good seed to soil contact.

"The Mzuri Pro-Til and iPass drills use tines to generate a small amount of till which the seed is placed in and efficiently reconsolidated to maximise germination rates."

The flagship Pro-Til one-pass drill offers strip tillage and direct establishment into stubble and cover crops and

remains a popular choice with growers looking to reduce establishment costs compared to conventional systems.

There is also the iPass, which has been specifically designed to offer high output, efficient low disturbance seeding direct into a range of field types at high operating speeds, whilst consistently maintaining an accurate drilling depth.

However, Jonny Newton, of the Yorkshire-based machinery firm, Russells, added that overall there has been an increase in average horsepower of tractors sold to UK farms.



LOW DISTURBANCE tillage, labour-saving robotics and energy-saving electronics, are becoming more commonplace – FarmDroid uses ultra-accurate GPS to record exactly where it places each seed. On each subsequent weeding pass, it has no need to identify what's a weed and what's not – it simply knows where the crop plants should be and works around them

"Some growers are looking at dispensing with tractors altogether, in favour of robots. We believe robotics will form the backbone of the next major step in technological development for agriculture."

OPICO managing director James Woolway.



"The new average is now 167hp – up from 155hp. Most farmers are increasing tractor size but, in some cases, reducing fleet size due to staff shortages and smaller working windows.

"These tractors are also more technologically equipped than their predecessors with a lot of features now being standard and the option to add more features and benefits very easily. A road speed of 50kph now seems to be the norm across most manufacturers coupled with front linkages and pto.

"GPS guidance has also become more popular over recent years with most farmers having some form of guidance from a simple lightbar system to full auto-steer, ISOBUS compatibility and section control."

Some growers are looking at dispensing with tractors altogether in some applications, in favour of robots. A fully autonomous, solar-powered robot capable of precision drilling and weeding has joined the OPICO line up.

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"We believe robotics will form the backbone



MODERN SUB-SOILERS have very low surface disturbance and can be used to alleviate compaction without disturbing the soil profile. With the HE-VA Stealth, a disc makes a cut and a leg passes through – the soil profile is not inverted

of the next major step in technological development for agriculture," says OPICO managing director James Woolway.

"While it's early days, we're coming to the UK market with a product that is tried and tested. The timing couldn't be better with rising energy costs, labour issues and environmental factors at the forefront of UK farmers' minds. FarmDroid ticks so many boxes."

As input costs rise, collecting and analysing data from tractors and farm machinery to improve operational efficiency is also a growing trend, said Farol director, Kevin Newman. "We are collecting data like fuel consumption

on field operations and spray/fertiliser application information. We can then use this data to pinpoint inefficiencies which we can help to improve.

"A key talking point at the moment is idle times. At busy times on the farm, it's easy to jump out of a tractor or machine to do a quick job which turns into a big job. By leaving the tractor/machine running operators are using fuel, eating into servicing hours and negatively affecting its residual value.

"When diesel was 67p/litre in August, 2021, leaving the tractor on might not have been at the front of everyone's mind, but at £1.10/litre, there is a significant cost," explains Mr Newman.

"Precision agriculture can also help reduce costs. We can use data from the John Deere Operations Centre to analyse applications and make sure fertiliser and chemicals are being applied accurately.

"If these are applied incorrectly, they can damage yields at huge expense to businesses."

■ Many of the machines above can be viewed at the Midlands Machinery Show on November 16 and 17, organised by the Newark and Nottinghamshire Agricultural Society (NNAS).

First UK lamb exports head to US

BRITISH lamb is on its way to the US for the first time in more than two decades.

Dunbia, which is one of Europe's leading food companies specialising in the production of quality lamb, has exported the first consignment from its site in Carmarthenshire, Wales.

The shipment will arrive in the US for a gathering of US industry leaders at the Meat Importers Council of America (MICA) annual conference.

It follows moves by US authorities to amend the 'small ruminant' rule which

prevented the export of lamb from the UK and other countries for more than 20 years. Trade with the US is estimated by AHDB to be worth £37m to the sheep sector in the first five years of trade.

Andrew Smyth, commercial director from Dunbia, said: "We have received our first order of British lamb which is being shipped to the US this week. As the largest processor of lamb in the UK, it is imperative we continue to have access to new and emerging international markets, and we welcome the small

ruminant rule amendment. We continue to work closely with AHDB to identify and develop new market opportunities for our quality British produce."

The US is proving a valuable market for red meat exports, with shipments of pork and beef worth more than £24m in the first seven months of 2022.

According to HMRC, 930 tonnes of beef and 5392 tonnes of pork were exported to the US between January and July, up 57% and 35%, respectively, on the previous year.