



## Drilling into stubble gives greater flexibility and security, now and in the future

Mzuri champions the use of reduced tillage establishment for a wealth of reasons, but in light of last year's wet autumn, the British manufacturer believes drilling into stubble gives growers the flexibility and security they need in difficult seasons.

In his role as knowledge exchange officer and trial farm manager for Mzuri, Ben Knight spoke to *Farmers Guide* about his experiences both with growers across the country and the Mzuri trial farm.

"Last autumn, the relentless wet weather deprived many of a suitable drilling window, leaving the national acreage down by a significant proportion. The greatest affected were those who had cultivated in preparation for drilling and were subsequently met with a change in forecast that saw them miss their chance to drill winter crops into suitable seedbeds. On the flip side, whilst not totally immune to the wet season, those who had left their stubbles in anticipation of direct drilling were given the best chance to be able to act quickly should the conditions come right – and, for many, they did.

"For those who were not so lucky, the act of leaving their stubbles intact through the winter months meant the network of roots and surface straw

protected the soil structure and minimised erosion in the extreme conditions. When the conditions did come right in the spring, these growers were not faced with slumped soils that needed rectifying – instead, they could go straight in and get a crop established.

"And, with the Mzuri Pro-Til, many users find there is less disparity in their spring crops since adopting a strip tillage system. It no longer has to be a second-rate choice if their hand is forced in the autumn to put more acreage down in the spring. Plus, with the benefit spring cropping can have on rotations and weed pressure, the Mzuri system provides flexibility and security at the same time.

"For growers who want to drill later to mitigate

against BYDV or weed pressure, widening their window by drilling into stubbles has been seen as a good thing. At our trial farm on heavy evesham lias clay, we wouldn't be able to get on much later than mid-October if we were to cultivate prior to drilling. In fact, that's a fate that held the farm back for years before making the switch to Mzuri strip tillage."

By allowing growers greater flexibility regardless of the season, Mzuri advocates leaving as much surface straw or cover crop residue as possible when considering the health of their soils and travelling conditions.

"Soil is delicate, and anything we can do to protect it from the effects of heavy machinery passes should be considered. On our trial farm,

we chop all straw and return it to the surface which has enabled us to build up a layer of nutrient rich humus over the last eight years. Not only does this provide ample food for soil

microbiology, but the impact of increasing our organic matter levels has been two-fold. Our soil health has flourished, and our yields have improved to give us a five-year farm average of 11.1t/ha for wheat – an improvement over the typical 7.8t/ha for our conventionally established crop, prior to converting systems.

"Not everyone can commit standing straw to be chopped but, with the increase in yield we've seen on our own trial farm, the value of the straw really does lie in leaving it in situ. It also reduces the pass of machinery over the ground – once our combine has left the field, the next to tread is the Rezult rake to encourage a chit of volunteers and weeds, and a pass with the Pro-Til. It certainly takes away the stress of fitting everything in if the weather turns."

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Mzuri knowledge exchange officer and trial farm manager Ben Knight is responsible for sharing best practice advice for new users, helping them with the transition and getting the best out of the Mzuri system.

Mzuri is a strong believer that this way of farming will take priority, as future governments look to reduce their emissions and often turn to agriculture as a way to do it.

"It's no secret that by inverting the soil we lose a significant amount of carbon and greenhouse gases to the atmosphere and by doing so, we strip our soils of the opportunity to sequester carbon and improve its resilience. This area of agriculture is gaining global attention and it is only a matter of time before farming in a way that looks after our soils and its effect on our atmosphere will be encouraged financially and through regulations.

"Perhaps these difficult seasons that we seem to be facing in recent years will provide the catalyst to change the way we think about arable production. By starting with a system that allows effective establishment into a range of stubbles and cover, growers can give themselves the advantage, whether their hand is forced by the weather or by agricultural policy." **FG**