

Get stubble management right says Claydon

STUBBLE management is critical to future-proofing crop success, regardless of which method is used to establish crops, according to the pioneer of 'strip seeding' in the UK, Suffolk farmer Jeff Claydon.

He said that getting it right is vital to optimise financial returns and preserve the long-term viability of arable agriculture by minimising weed and pest pressures, while keeping agrochemical input costs in check.

"Current agricultural commodity prices are forcing farmers to consider how they can reduce crop establishment costs substantially," he pointed out. "Unfortunately, some are being 'sold' the concept of direct drilling purely on the basis of theoretical cost savings, without being made aware of the need for correct stubble management techniques.

"Yet this is fundamental and gaining in importance as agrochemicals become more expensive and less effective. Direct drilling offers significant potential cost advantages.

"On my heavy land farm, where we have not ploughed

for 14 years, it would now cost more than £300/ha to establish combinable crops using plough-based techniques, compared with £51/ha for strip seeding," he argued.

He added that while the potential benefits were beyond doubt, the technique must be done correctly and encompass effective stubble management strategy.

"Using timings of light surface cultivations, strip seeding and wider rotations, we have seen yields increase progressively, by 1t/ha for wheat. Weed and pest issues are also much reduced," he said.

Doing nothing or just moving soil once or twice between harvest and drilling autumn-sown crops is insufficient and no-till establishment is deeply flawed, he said. If stubbles are left virtually undisturbed, slugs and weeds will multiply, particularly where straw is poorly chopped and distributed, as crops will be thin or non-existent in such areas.

"The declining effectiveness and increasing cost of agrochemicals will force farmers to focus on

more effective management of stubbles using mechanical solutions," said Mr Claydon, who added that the 'little and often' approach is best.

A key is to achieve rapid germination of weeds/volunteers so they can be killed using mechanical or chemical methods. "Conventional min-till is not ideal because it can move too much soil, slowing germination or burying weed and volunteer seeds so that they germinate after the crop emerges, creating major cost and control issues," he pointed out.

Deeper cultivations present a weather risk, as significant rainfall will reduce the soil to a sticky mess with no structure or ability to support following machinery. The surface can also seal over and become anaerobic, creating issues with water 'ponding' or runoff.

In extreme cases, full cultivations may be necessary to put right the initial attempt at min-till, in which case weed/volunteer seeds will be buried even deeper, making control impossible and allow slugs to survive and thrive.

He shared his method

of stubble management: "Immediately after combining, we use a 7.5m straw harrow which helps to manage trash and crop residues, control slugs and encourage weeds and volunteers to germinate.

"It covers up to 100ha per day and because this implement is so fast and

cheap to use, we repeat this operation every 7-14 days when conditions are favourable. So little soil is moved that, even if the weather does turn wet, the mini-till which is created will quickly dry out and allow subsequent operations, either another pass with the straw harrow or drilling."

Harder soils may require something a little more aggressive, such as the Claydon TerraStar, a simple, low-cost, low-disturbance shallow cultivator. The straw harrow is then used to create a wave of surface till to break off germinating plants at the one-leaf stage, eliminating the need to spray.



JEFF CLAYDON uses this 7.5m straw harrow operating at up to 25kph to help control weeds and slugs