



# Let's talk profitable farming

**With continually rising input costs and low profit margins, today's farmers are under more pressure to produce better yields whilst simultaneously reducing farm expenditure than ever before. Intensive conventional farming including repetitive ploughing and misuse of agrochemicals is having a detrimental impact on the environment, destroying precious ecosystems and, most crucially, causing soil deterioration. As a result, many growers are suffering plateaued yields, battling persistent weeds and fending off crop disease. Furthermore, multiple machinery operations are contributing towards high establishment costs. Subsequently, agriculture is facing a huge challenge of balancing the short-term farm profitability against securing a sustainable farming future.**

## **The Mzuri way. Intensive farming that does not cost the earth.**

In answer to these agricultural challenges, Mzuri have designed a unique strip-till drill capable of carrying out multiple operations including seedbed preparation, fertilising, drilling and reconsolidation in a single pass. As the system eliminates a number of unnecessary steps, the same soil to seedbed preparation takes only a fraction of the time compared with conventional establishment, allowing significant cost reductions in labour, machinery, fuel and capital investment. In addition to these savings, the system can increase yields through working with nature to restore the health of our most valuable asset - the soil.

One pass drilling places the seed in a narrow tilled strip whilst leaving the rest of the ground untouched for minimum soil disturbance. Furthermore, Mzuri is capable of drilling in a choice of narrow or wide row spacings. Wider spacing allows more light in between the rows which means that the entire surface area of the plant can be used to harvest the sunlight and convert it into energy. The result is a healthier, bushier and higher-yielding crop.

The Mzuri system also promotes the use of previous crop residue which, left on the surface, provides food for the soil's living ecosystem and helps to retain moisture. Improved soil structure and fertility play an essential part in healthy crop establishment, development and production, meaning that farmers can enjoy profits both today and tomorrow.

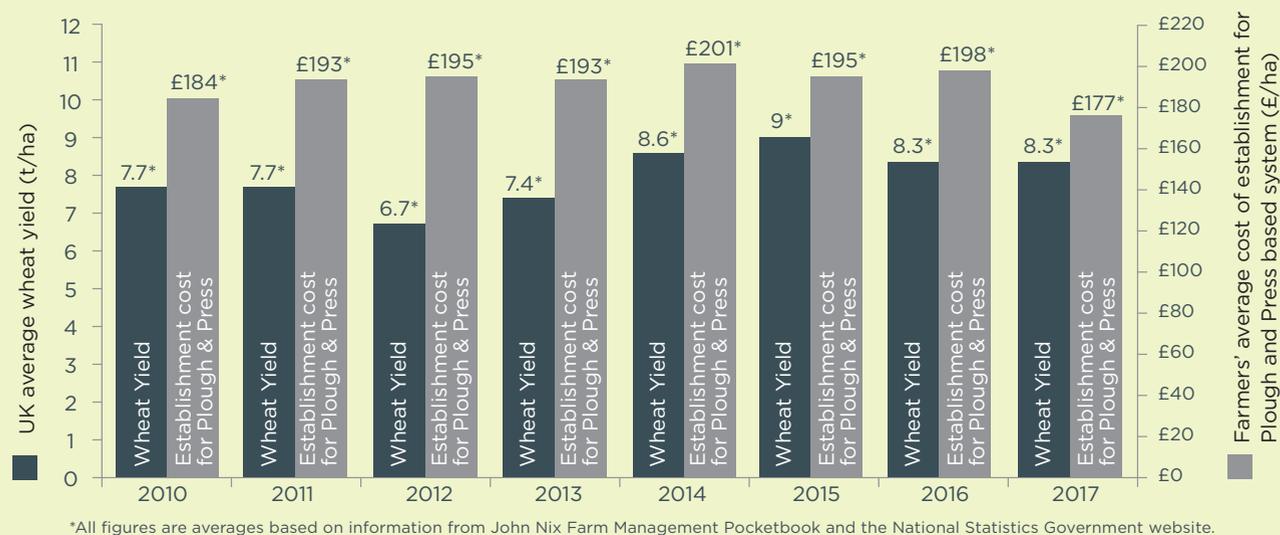
# Rising to the challenge

Trialed and tested throughout the world, the Mzuri system has proven to work in all soil conditions, rapidly improving soil structure and farm profitability. Customers, including farmers and contractors alike, have often seen their establishment costs reduce by half or more and yields increase to record levels. Against the backdrop of falling wheat prices and rising input costs, the Mzuri system has helped farms to survive the margin

squeeze and turn their business into a profitable operation where many plough and press based systems were failing.

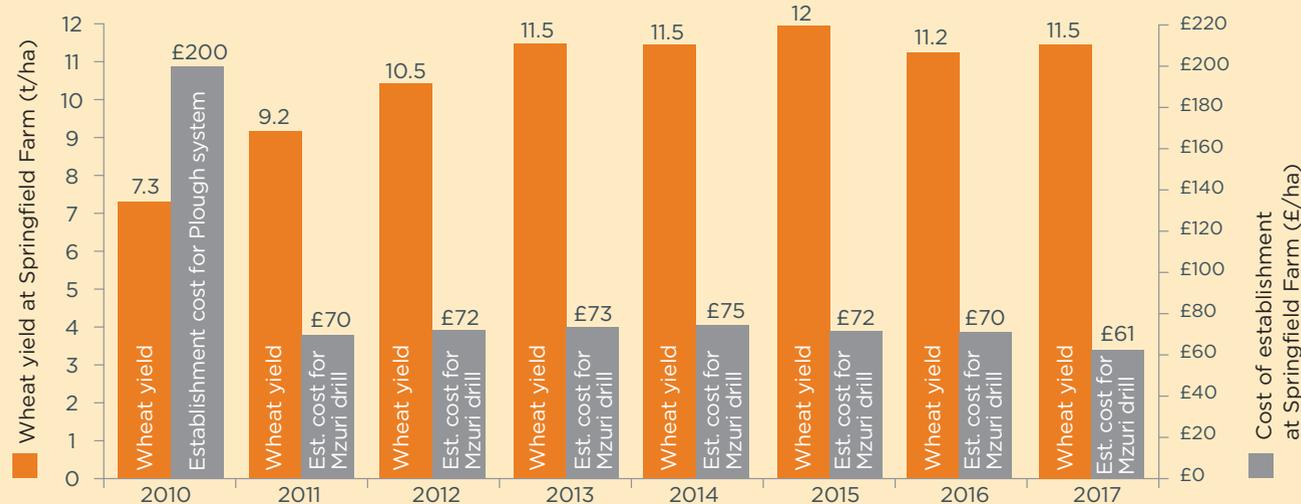
Springfield Farm is just one of such success stories. Since switching to strip tillage, the farm is seeing continued improvements in soil structure and, most importantly, significant cost savings compared with conventional tillage.

## UK average wheat yields and establishment costs for a Plough and Press based system between 2010 and 2017



Since 2010, the average cost of establishment per hectare for a Plough and Press based system has remained high whilst average yields of wheat have plateaued.

## Actual wheat yields and establishment costs at Springfield Farm between 2010 and 2017



When using a plough based system at Springfield Farm in 2010, the cost of establishment was £200/ha with yields of wheat at 7.3 t/ha. Switching to the Mzuri Pro-Til drill from 2011 onwards has more than halved this establishment cost down to on average just over £70 per hectare and, most importantly, significantly increased yields of wheat.

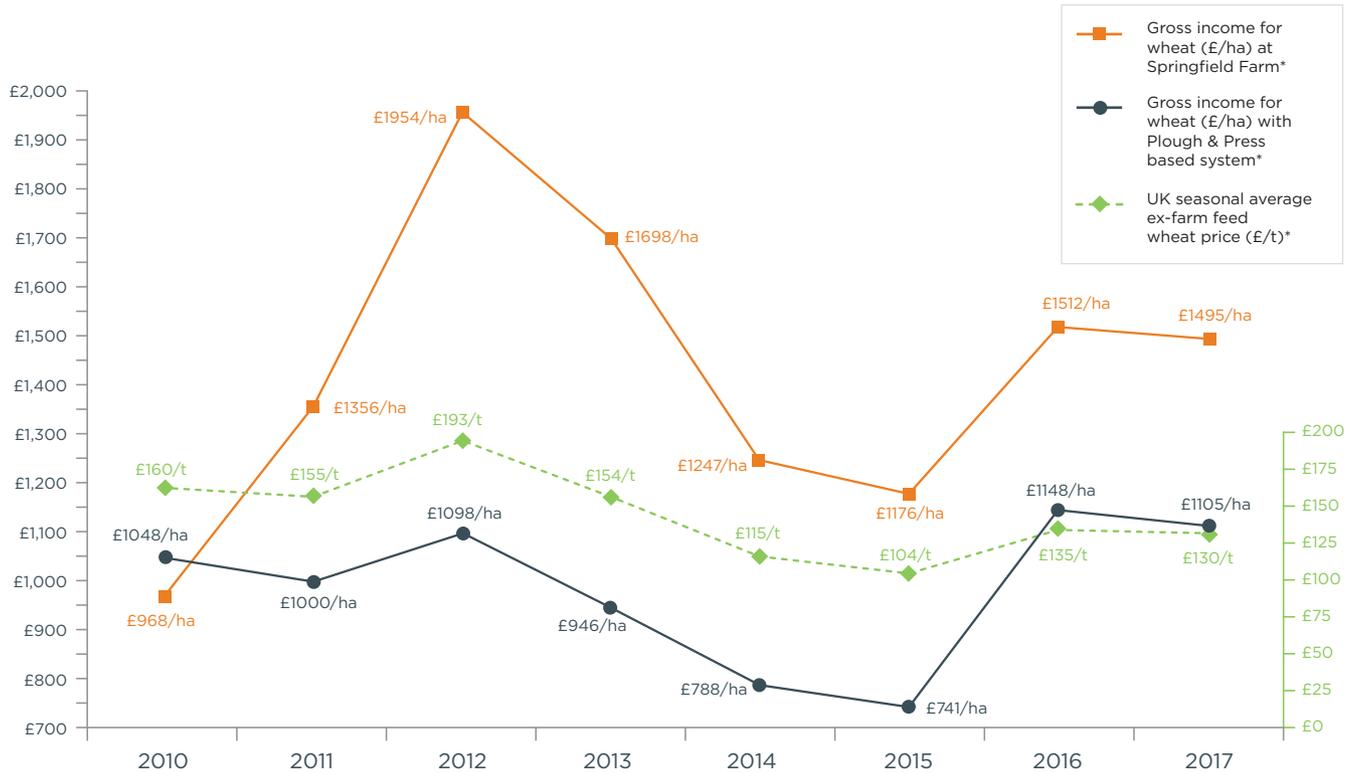


# Mzuri. A profitable yet sustainable solution.

The data on the line graph below presents a comparison of yearly gross income per hectare for wheat at Springfield Farm and from a Plough and Press based system, between the years of 2010 and 2017. Since moving over to the Pro-Til system in 2011, the gross income per hectare at Springfield Farm has rapidly increased in contrast to the Plough and Press based

system, which appears to be following the same pattern as the price of wheat.

Through use of the Mzuri Pro-Til drill, Springfield Farm have maintained low establishment costs and produced increased yields, allowing the farm to remain



\*All figures are averages based on information from John Nix Farm Management Pocketbook, the National Statistics Government website and AHDB.

“ Prior to switching to strip tillage, we blanket cultivated our 178 hectares of Evesham Lias Clay which was suffering from slumping and blackgrass infestation. Seedbed preparation was time consuming, labour intensive and costly, yet we were seeing unsatisfactory results as the seeds were germinating unevenly and in lower numbers due to the loss of moisture when ploughing.

Since the adoption of the Mzuri strip-till system, we have noticed dramatic increases in soil organism activity resulting from higher organic matter levels on the surface which is changing our soil composition. What was previously heavy clay, the soil now has a 25mm layer of humus and

a looser, crumbier topsoil structure with increased earthworm count. Independent microbiological tests of farm soil show presence of high levels of beneficial fungi and bacteria which make a huge difference in plant root development and help fend soilborne diseases.

Most importantly, our OSR yields have nearly doubled from 3.1 t/ha (with conventional establishment) to 5.5 t/ha with the one pass Pro-Til Select drill on wider row spacing. Similarly wheat yields have gone up from 7.3 t/ha to 12 t/ha. On top of that, we have lower input costs, and as a result, are getting much better profit margins. We are convinced that the secret to our success lies in the

combination of selective tillage, wider row spacing and leaving straw on the surface, and firmly believe this is the formula to profitable farming. ”

**Martin Lole, Springfield Farm, Worcestershire**



## What our customers say...



“ The Pro-Til drill is a brilliant piece of kit and we are very impressed with the way it establishes all of our crops. The small press wheel gives excellent seed to soil contact which is where this machine has the edge over its competitors. The drill is very effective in creating the perfect seedbed in one pass whilst improving the rooting structure under the growing crop. Soil structure and biodiversity have improved over the last few years and there are definitely more worms in the soil profile which helps to break down straw residue after harvest. Another huge benefit is time - my working hours have reduced considerably meaning I have more time for my family now.

Using the Mzuri drill has dramatically reduced our establishment costs from £220/ha to £120/ha for wheat and £74/ha for OSR before seed. Our crop yields are increasing year on year, with winter wheat averaging 12.5 t/ha and OSR at 5 t/ha. This gives us a massive saving in cost of production and in these uncertain times it is vital to remain profitable and sustainable. I would never go back to the old crop establishment method.

*Guy Shelby, Benningholme Grange, East Yorkshire* ”

“ Labour and cost-savings were two reasons for changing to the Mzuri drill, but our main motivation was the desire to improve our soil structure. For us now, soil erosion is almost a thing of the past, both because of the straw left on the surface and the undisturbed areas of soil where the previous crop's roots have held the soil together. We see much more worm activity and we don't lose too much moisture, which is important for our light soils. As a result, we get a more reliable establishment than we used to get when either ploughing or min-tilling, especially on heavier soils. Two years ago we produced record yields of wheat, spring barley and beans all of which were then broken again last year with top field yields of 11.5 t/ha for wheat, 9 t/ha for spring barley and 6.8 t/ha of spring beans.

*Tom Collier (RP Collier Farms)  
& Richard Clarke (Clarks' Farms), Staffordshire* ”



“ The savings made by using my Mzuri drill have given me the confidence to expand my contracting business, by successfully establishing wheat, barley, beans and in particular OSR. The one pass cultivation, incorporating a drill, fertiliser and slug applications rapidly establishes the OSR plant, giving it the best possible chance to grow. We've seen big cost reductions in OSR inputs by using lower seed and fertiliser rates. One pass drilling has improved my soil structure, resulting in year on year increase in yields.

*Philip Woods, PR Farming, Bedfordshire* ”

“ Since switching to the 4m Pro-Til drill, I have saved £18,000 on labour, a further £18,000 on fuel and £6000 on tractor hire. That's a total saving of £42,000 in the space of just three years, with my yields last year at its highest yet.

*David Blacker, Rising Sun Farm,  
North Yorkshire* ”

