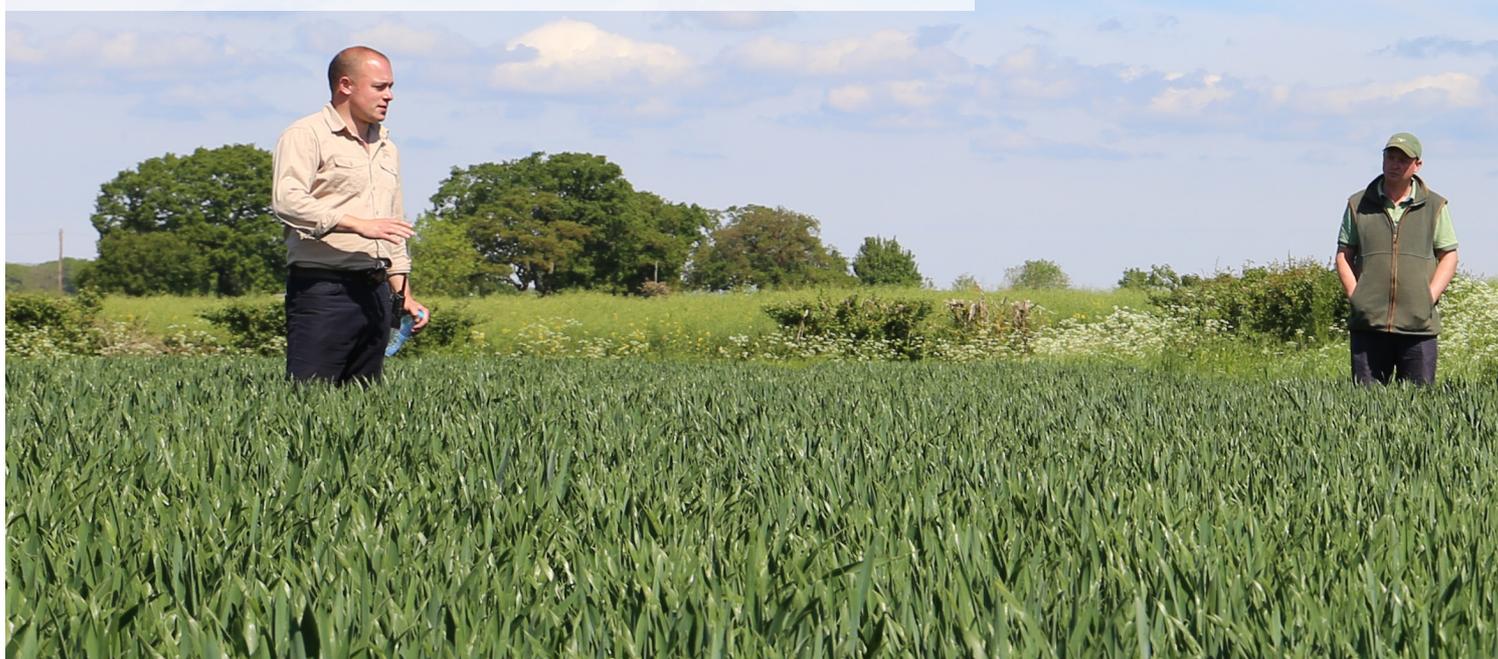


IN FIELD RESEARCH PAYS DIVIDENDS

Jane Brooks caught up with the team at Springfield Farms, Mzuri's trial farm and facility, on the 23rd May, the last of three Spring Strip Tillage Open Days at the Worcestershire based manufacturer held this year.



Being able to improve and develop machinery based on real world findings in similar conditions is the aspiration of many agricultural machinery manufacturers.

Combine this with almost a decade of farm based research and development, much of it gained through a programme of crop trials, together with engineering and manufacturing experience and you're pretty much where strip tillage drill and equipment manufacturers Mzuri are today.

The Company are by no means resting on their laurels, field based research is on going and Mzuri are more than happy to share all the trial results, good, bad and indifferent with their customers, and also keep the wider public

informed as to latest trials and developments through Springfield Farms online diary.

On today's tour old hands in the world of strip-tillage sat alongside newbies and others curious about the system. In fact, as we progressed around the farm there was an open exchange of knowledge, with Mzuri drill users happy to share their own experiences, any benefits they had seen from the system and even some costings - benchmarking in action.

The tour was punctuated by a few brief ventures off the farm's trailer to look at various demonstration crops and listen to Farm Manager Ben Knight as he updated visitors on how the latest trials were progressing.



GOOD LOOKING CROPS

Firstly, visitors had the opportunity to see the glyphosate-free wheat field drilled with Mzuri Pro-Til 3T on 33.3cm row spacings. The Graham variety looked well given the dry weather and distinct lack of rain that has continued from last year in the area.

The Winter Oil Seed Rape was showing plenty of pods and wide branching from low down, which Mzuri put down to the Pro-Til's ability to preserve moisture through straw retention and wider row spacing.

The rape was drilled with a dual shoot coulters 66.6cm apart, which maximised airflow and the light interception into the crop's lower canopy.

Establishment was uniform across the field due to good depth control producing even germination.



The Winter Oil Seed Rape was showing plenty of pods



Subsequently, the farm's OSR typically only requires one Sclerotinia spray due to the crop's even flowering window. The even establishment is also beneficial at the crop's final stages as it allows it to ripen evenly without the need to desiccate.

Other wheat projects included hybrid and conventional wheat seed rate trials off the back of last year's ultra low seed rate trial at just 18kg/ha of a hybrid variety which yielded 6.5t/ha, as well as a side-by-side Omnia precision farming field to demonstrate the Pro-Til's compatibility with latest precision technologies.

BIO STIMULANTS TRIAL

Another trial, which I found particularly interesting, took a look into bio stimulants and their effect on the different varieties of the hybrid wheat plots. Calibra Carbo, available from Arysta is the bio stimulant being used, it contains vegetable amino acids and seaweed filtrate, which Arysta says will improve rooting and boost protein synthesis.

The 10ha trial field contains several different seed rates and hybrid varieties in 24m plots between the tramlines. To enable a side-by-side visual comparison bio stimulant was applied across half of each plot, with the other half untreated. The plots will be monitored throughout the season to see if there are any noticeable differences.

COMPANION CROPPING

Additionally an interesting inter-row companion crop trial is taking place. Last Autumn wheat was drilled at 66cm row spacing, then on March 29th red clover, lucerne and birds-foot trefoil, was drilled using the Pro-Til 3T in Select mode with alternate legs lifted out of work, (to give the wider row spacing) minus every other reconsolidation wheel.

The plan is to leave them in for as long as possible, drilling the arable rotation in-between the rows. Unfortunately the incredibly dry spring has hindered the establishment of the cover crop, but time will tell and I look forward to seeing further inter-row trials.



The morning's tour ended with a demonstration of the Mzuri Xzact precision seeder in action drilling Maize and a run through of the drill's capabilities.

After lunch Ben gave visitors an insight into the how the Mzuri strip tillage system has affected the farm in terms of soil and crop health, yields and profitability. He also gave a brief overview of the typical savings and benefits achieved by other Mzuri users, when compared to their previous systems.



As well as viewing all the trial plots visitors had the opportunity to see the Mzuri Xzact precision seeder in action drilling Maize.

Winner of the 'Best Product or Innovation for the Environment' Category and awarded the IAgRE Ivel Trophy for its positive impact on the environment at the 2018 LAMMA Innovation Awards, the Mzuri Pro-Til Xzact also went on to become Overall Winner of the Awards and receive the David Baggaley Memorial Cup.

The Mzuri Pro-Til Xzact combines a striptill drill and a precision seeder into a single piece of equipment, enabling just one drill to seed all types of arable and precision crops – in a single pass.

The Xzact system features an electronic precision seeding unit and coulter assembly to deliver single seed placement whilst constant hydraulic pressure exerted onto each coulter arm ensures accurate seeding depth.

Adjustable-pressure vacuum metering accurately spaces crops regardless of seed size. Each unit contains a metering disc and a singulator to prevent skips or doubles and is driven by an electric motor, which maintains the same seeding distance at variable speeds.

Mini hoppers on the Pro-Til Xzact drill are automatically replenished by a bulk fill mechanism on each metering unit directly from the Pro-Til's main 2800 litre seeding tank, extending the drilling time and reducing downtime.

The precision striptill approach eliminates ploughing and power-harrowing operations and is capable of drilling into previous crop residue. The Pro-Til Xzact precision striptill drill is proven to retain moisture, reduce soil and water erosion and improve soil structure whilst cutting diesel requirement by up to 80% compared with conventional seeding – without any yield penalty.