Resilience

Welcome to the first edition of the new regional ‘Reaping Rewards’ insert of Grain Outlook. We recognise the importance of providing you with regionally-focused and targeted information and have developed this added extra to provide you with information of key activities in your area, including on-farm and research activities supported by AHDB Cereals & Oilseeds. I hope that you find this a useful and interesting read.

When reflecting on the past year it is hard to comprehend where the time has gone and how much we have achieved at the AHDB Cereals & Oilseeds Monitor Farms in the West & Wales region.

As always, the monitor farmers Mark Wood (Hereford), Rob Fox (Leamington Spa), Julian Radcliffe (Cardiff) and Adrian Joynt (Bridgnorth) gave 110% to ensure the programme’s success. Their efforts certainly paid off as each hosted a programme of meetings where we were treated to open dialogue, debate and discussion with each other, as well as learning from a number of expert speakers.

On the whole, harvest 2016 yields were distinctly average in our region. Combined with the uncertain political landscape which growers are currently facing, this highlights to me the increased importance for growers to have resilient businesses in order to ride out any potential storms on the horizon. This is where AHDB can help: using the wealth of tools, information and knowledge available through the organisation is a step towards strengthening your own business.

For any information on how to get the most out of AHDB please feel free to contact me on richard.meredith@ahdb.org.uk or 07717 493015

On-farm try-outs

Herefordshire farmer Mark Wood has been hosting on-farm try-outs for the past three years as part of his role as an AHDB Monitor Farm host.

At the penultimate Monitor Farm meeting on 17 January, the group of local farmers heard the results of the on-farm try-outs, including work on compaction, cover crops and precision farming.

Tyres and compaction

Mark farms on sandy loam soils that suffer from compaction easily. He found that he was getting a lot of damage from vehicle wheelings, especially at harvest.

He said: “The sandy loam soil is unforgiving. If you make one mistake, it lasts all season and beyond. We needed to look at our tyres because we saw the damage we were doing.”

In April 2015 the Monitor Farm group looked at tyre pressures and types, and as a result changed the trailer tyres.

The new drilling tractor runs on 710/60 R22.5 tyres, with pressures varied according to the load. The two main grain trailers run on 560/45/25 tyres.

“You can see the differences very visually. It also takes less horsepower to pull the trailers with the new, wider tyres.”

A quick comparison this January between the old trailer tyres, which were standard lorry super singles, and the new wider flotation, low ground pressure (LGP) tyres found that the new tyres did cause less compaction in a field of cover crops. With the trailers loaded to 2.4t, (they are 12t trailers but ground conditions did not allow more) and the tyres both at their recommended road pressures, the wheelings on the narrower tyres resulted in 300psi resistance on the soil penetrometer, whereas the wider tyres led to just 200 psi. Depth of the damage was half the depth with the LGP tyre.

Mark said: “The Monitor Farm has been brilliant for raising our awareness on wheel loads and axles. We’d never have considered that three years ago. There’s a lot more thought that goes into it now.”

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Cover crops
For Mark, the most important consideration is that any cover crops grown contribute to the overall profitability of the farm, preferably through the following crop. The aim of cover crops for Mark is to capture nutrients and improve the soil structure.

The team at JPF Clay have grown a cover crop trial for three years. They have learned that the most important consideration is that it does not negatively affect the following crop which is the thing that puts the money in the bank. Secondly design your cover crop to meet your aims, whether that be nutrient capture, bio-fumigation, soil structure or another purpose.

This season his cover crop was sown in late August with leftover bird cover seed and a mustard mix. It was established with a Horsch drill into stubble, and tillage radish was spun on with the slug pellet applicator. It was then rolled. The soil in this particular field is sandy, and prone to leaching.

Mark paid a total of £10/ha for the seeds, and it cost £65/ha to establish.

Emily Smith, Knowledge Transfer Manager, said: “We’ve been finding, from farmers’ experiences, that it’s important to consider soil types when thinking about cover crops. It’s also vital to look at the long-term benefit, not just any single year.”

The group found a good diversity of worms under the current cover crop, with different species and ages represented.

Mark said: “Next year I will try to establish the cover crops slightly cheaper with the use of a stubble rake, and may also add a small amount of N to boost early season growth. We are getting very little carryover of nutrient from the preceding crop.”

Precision farming
Mark and the team at JPF Clay looked at precision farming and variable rate seeds and applications in order to address rising input costs, variation in soil types, to even up outputs and to exploit advances in technology and accessibility.

“Here in Herefordshire we can have an average of six different soil types per field, even though we have very small fields, so variable rates may well be very important to us.

“The big question, being asked through monitor farms was, did variable rates pay? It’s hard to say whether our yields have increased to cover the costs, because we haven’t got yield maps to compare it to in the past. However, even if we did, it would be difficult to attribute any increases solely to variable rate applications, with the differences each year due to climate and other factors.”

Within the West and Wales region, the monitor farmers have also been looking at practical solutions to weed control. Rob Fox (Leamington Spa), and Adrian Joynt (Bridgnorth) are focusing on reducing weed populations, and the role of cultural control methods to maintain herbicide efficacy and availability. Adrian is currently involved in a cover crop trial to determine their effect on weed suppression, in addition to soil structuring.

“Late drilling could be one solution to weed control. It may result in a weaker cereal crop, but this also means the weeds will be weaker, and you have additional time available for weed control. Tailor this strategy to your farm, and start on the worst fields on the farm, as it involves the most risk in wetter and colder weather conditions.” Black-grass however is very adaptive, and you therefore should switch between autumn and spring cropping on affected fields.

For guidance on black-grass visit cereals.ahdb.org.uk/publications and search for Information Sheet 30, Black-grass: solutions to the problem.