

Refining a mixed system

Sustainable solutions

Ensuring an efficient agricultural business across every productive square metre of the land is the primary aim of Gatley Farms in Herefordshire. CPM learns how this approach is complementing the farm's sustainability goals.

By Janine Adamson

Sustainable agriculture can mean many things to many people, but at the heart of its definition is meeting the requirements of both existing and future generations. This is certainly front of mind for farm manager James Oliver, and is a reason behind recent changes.

James took over the role at the Gatley Estate in Leominster, Herefordshire, back in 2020 – just prior to the start of the Covid-19 lockdown. His management strategy centres around efficiency, to enable the farm to support its staff, their families and its own development.

As expected given its geography, the estate has always been a mixed enterprise, currently juggling a large hectareage of arable cropping, grassland, forestry and a suckler beef herd based on the Stabiliser breed.

At the core of the rotation is potatoes — grown one in six — mostly for processing.

The rest consists of winter wheat, oilseed rape, winter oats, winter barley and temporary grassland.

James says one of the first changes he implemented was to disperse the 1200-head sheep flock and increase cattle numbers. “The cows integrate well with the arable system because FYM (farmyard manure) makes an excellent soil conditioner ahead of potatoes.

“The cattle are all grassfed plus some bought in TMR (total mixed ration); they're also given stockfeed potatoes which makes the system very circular,” explains James.

Cover crops

An action which he champions in enabling potatoes to remain viable is the use of cover crops. “We plant cover crops ahead of potatoes using a Westerwolds ryegrass and vetch mix. Half of that is then cut as silage for the cows and the rest is left for contract sheep grazing.

“There are many advantages — we've noticed that fields planted with cover crops are less likely to move or run during adverse conditions because the ground is preserved. We're battling steep gradients with silty-clay-loam soils so land can be at high risk of run-off,” he says.

Equally, from an income-perspective, James has found cover crops to be a means of stacking revenue. By treating them as a cash crop he's eligible for SFI payments, a grant from Severn Trent (for trials), a bonus from McCain and rent from sheep grazing.

But, he admits there may be long-term impacts from the choice of cover crop species. “The mix establishes well and is cost effective but we'll have to monitor pest pressure including wireworm and free living

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nematodes. I hope we've not made a rod for our own backs,” he raises.

Another change James has instigated is tillage related. Back when he took over as farm manager, the whole cropping area was cultivated using a plough or deep tillage. However, wanting to move away from this



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approach meant purchasing a Mzuri strip-till system.

“Direct drilling doesn’t suit the estate because of the high silt content of the soils — in some areas this is more than 60%. Introducing the Mzuri was a major change for the farm but meant we could significantly reduce our horse power, diesel and workload requirements,” he explains.

With a combi-drill as a back-up for when conditions are too poor for the Mzuri, James says there’s greater flexibility in the system while improving the quality of the farm’s soils. “It’s about respecting the silty soils while increasing the levels of organic matter.

“Although we’ve not measured it officially, we seem to be able to travel 8-10 days earlier compared with the ploughed land. There doesn’t appear to be a yield penalty at the moment from using the strip-till either.”

Despite inclement weather conditions, most of the estate’s crops this season have been planted using the Mzuri, with just 80ha experiencing the plough and combi drill.

For potatoes specifically, James has reduced cultivations associated with growing the crop by removing the ridging pass. “We create ridges using the 3-bed tiller

supported by GPS technology. This is more efficient and reduces a pass of a machine while improving accuracy,” he says.

By investing in the correct equipment for the situation, James believes he’s made choice decisions without having to compromise on the farm’s rotation, which he says hasn’t really changed for some time.

Another purchase was a John Deere Hillmaster combine. “I wasn’t in the market for a new combine at all, but seeing a demo machine being trialed on our steep terrain soon changed my mind. You can level it much easier which coupled with a draper-style header, has reduced losses significantly.

“The combine is working more optimally and because there are less losses, there are less volunteers in the following rotations,” he explains. And despite being a smaller piece of kit, James says the working hours have been reduced simply based on the machine being more suitable for the job.

Whereas the estate’s machinery has moved forward considerably, James still takes a conventional approach to crop inputs, supported by some newer technologies. “We implement what would



Cover crops are planted ahead of potatoes with half cut for silage and the rest left for contract sheep grazing.

be viewed as conventional plant protection programmes, for example fungicides, but supplemented by plant health products.

“This is particularly useful because we don’t irrigate our potatoes — biostimulants have come into their own in improving rooting, green leaf area retention and reducing plant stress before herbicide ▶

iFarm trials

The Gatley Estate has been engaged with Agrii’s iFarms project since 2009 when it began hosting variety trials for wheat, barley and oilseed rape.

Supported by Agrii agronomist Digby Oliver, who’s been involved with the estate for around 35 years, Gatley has become a firm favourite thanks to the fact it typifies farms of the local region.

“The site is ideal for an open day due to its large yard and range of outbuildings — the infrastructure is already in place. Plus, it’s very indicative of the area due to the steep terrain and valley sides,” explains Digby.

Now concentrating on winter wheat, this year, the farm is hosting 39 different replicated variety trials which will be taken to yield. This includes varieties across Groups 1-4, both treated and untreated.

Farm manager, James Oliver, says being an iFarm provides him with an early doors preview and the chance to see which varieties perform best on his land. “For example, Fitzroy (Secobra) and DSV Oxford are both Group 4 varieties which yielded well during trials and are now grown on the farm alongside Group 2 KWS Extase,” he comments.

“We’ve grown Extase commercially for four years after seeing it in the iFarm trials — it

offers good septoria resistance and is a great all-rounder variety.”

Equally, James believes there’s value to be had in the untreated plots. “This is when you can really see how disease impacts a certain variety, to show other farmers how a crop will perform within their own geographical area,” he says.

In addition to varieties, the farm is also hosting a fungicide trial to evaluate the efficacy of new products against septoria, including biological options. The variety of choice for this is Group 4 wheat, Elation (Elsoms).

Supporting Digby on the agronomy side is Agrii’s Ben Burgess who believes the key to the success of iFarms is having supportive farm managers. “They have to be open-minded and willing to try something different.

“In the future, we hope to explore variable rate seed as well as further investigations into plant health products and optimising nutrition. It’s important to quantify these newer products to be able back claims up with conclusive data,” he adds.

Digby stresses that for many in Herefordshire, the iFarm event is an opportunity to socialise with like-minded people. “It’s an excuse to bring people together and the importance of that shouldn’t be downplayed.”



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Whereas James concludes by saying he’s found the whole iFarms process very useful in aiding decision making on the farm.



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► applications. We tend to use amino acids and humic acids to address these requirements.”

And although the farm suffers from both cabbage stem flea beetle and slug pressures, it's deer management which is the primary concern.

“We have large populations of fallow deer and increasing numbers of muntjac. They cause significant damage to the forestry and arable aspects of the business. I would say deer are the farm's biggest pest, along with bovine tuberculosis (TB) in the cattle,” explains James.

He also notes that finding qualified, well-rounded members of staff can prove a challenge. “Given that the industry seems to be lacking decent operators who are happy to work at mixed enterprises such as Gatley, we're grateful to have a highly motivated, skilled and

hardworking team supporting the estate.”

From a wider estate perspective, SFI actions are being implemented across the board. Most grassland is entered into herbal leys (SAM3), all soils are regularly sampled (SAM1), winter bird feed is grown on less productive land (AB9), fields are squared off (AHL3/grassy field corners or blocks) and hedgerows are managed (HRW1/HRW2), among others.

SFI returns

According to James, SFI suits the estate due to its geographical location. “The return is reasonable from SFI; we've chosen actions which are feasible and work within our constraints. Moving forward, we plan to utilise variable rate technologies for seed as well as P and K if possible which will open up more actions,” he says.

One part of the business which James is particularly proud of is a diversification project — home-grown peonies for the cut flower market. Although many may view this as a curve ball, he says because the flower beds are created and topped using existing potato equipment, it's relatively low risk.

“Having sown 10,000 plants which should yield 10-20 stems each by maturity, done well it's a lucrative business. We're also establishing a display garden as an attraction with around 100 different varieties of peony,” he concludes. ■



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Sustainable Solutions

The leading agronomy development network

Extending from the tip of Cornwall to the Black Isle, north of Inverness, iFarms are part of the country's most comprehensive arable agronomy development network.

Hosted by forward-thinking growers, the network undertakes a range of practical trials and demonstrations overseen by Agrii agronomists in parallel with detailed scientific research delivered by R&D teams at Agrii's six principal Technology Centres.

Each of the 18 main iFarms has its own unique set of conditions, requirements and challenges which are reflected in the trial work undertaken and solutions explored and developed.

The current programme includes fully-replicated national and regional trials as well as field-scale demonstrations with the widest possible range of winter and spring wheat, barley, oats, rye, oilseed rape and maize varieties.

Specific studies are also conducted with a broad range of integrated crop management strategies including pest, disease and weed management, macro and micro-nutrition approaches,



and tillage regimes; cover, companion and alternative cropping options; and a variety of biological, soil improvement and environmental land management opportunities.

A full programme of meetings throughout the year and summer open days give growers the chance to experience the latest iFarm and Technology Centre work first hand — share in their most-up-to-date findings while discussing innovative agronomic thinking in thoroughly local contexts. Don't miss opportunities from the network this season — scan the QR code below to explore what's happening where and when, and link to 'invitation-only' events which might be of interest.

