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FIRST HAND CASE STUDY: Herbal Leys & Cover Crops with George Hosier

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Five years ago George Hosier began introducing herbal leys into his arable rotation to widen his rotation and make his farm more resilient. The results have been impressive.

'I felt the herbal ley with its species diversity and architecture of deep rooting plants like chicory, cocksfoot, clover and sainfoin would give us more resilience for different weather conditions and also improve soil structure and fertility. The more diversity you have above ground, the more below the ground and the more nutrient cycling goes on, improving the fertility of the soil.'

George's great-grandfather bought Wexcombe Farm in 1920. The youngest son of a family of 12 who were tenant dairy farmers in Bradford-upon-Avon, he could see the potential for a dairy farm. But there were no buildings on the top of the downs, so rather than walking the cows miles back down to the farm he invented the mobile milking bale, a system that was very successful through the 1920 to 1950s. George's father took the decision to leave dairying in 1990 and the partnership (George, his wife and his parents) have run an arable operation and beef suckler herd of Hereford crosses since then. Outbreaks of TB in the '90s resulted in a decision to reduce numbers to around 40 breeding cows, grazing the permanent pasture and finishing everything on the farm using the housing available.

It was the decision to go no til for the arable operation in 2014 and introduce leys into the rotation to improve soil organic matter that changed things. George began with 10 hectares of temporary leys but the farm now has 80 hectares. 'The herbal leys add so much in terms of increasing soil organic matter and soil life and they also give us a really good break and chance to clean the fields and reduce the burden of black grass and other pernicious weeds in our arable system.'

The cattle do really well too. 'We've steadily been increasing the size of the suckler herd and are now up to 218 head of cattle and there will be 90 cows going to bull this year. They are all mob-grazed together and calved in April. The aim is to finish everything between 26-30 months. We can finish animals just on herbal leys, winter cover crops and permanent pasture. Everything is 100 percent pasture fed and the average carcass weight is 345kg.'

So how are the herbal leys and cover crops established and managed in the arable rotation? 'There are challenges with seeding a herbal ley in the no til system and we've tried a few different methods. Initially we had a cross slot drill but now we have a John Deere 750a. The benefit of the JD over the cross slot is the rows are slightly closer together giving a more even sward. We double drill at 90 degrees to improve ground cover and we have found autumn drilling behind winter barley is the best - we try to get the ley in during early August. We have established some by undersowing into spring barley in May time. It established well but the grass did better than the herbs and it was a bit more open, so my preferred route is to put it in in the autumn.'

The herbal leys are in the ground for four years and then sprayed off and direct drilled with a summer

cover crop to break down the grass sward. ‘We grow winter cover crops in front of all our spring cropping. Occasionally we also grow a cover crop in summer time to boost forage grazing for the cattle. The cover crop is also a way of reducing the allopathic effect of grasses on the following wheat crop.

The herd is mob-grazed and moved every day. ‘It creates work but when you take into account the lack of work in the winter compared to housing cattle, it balances out. It’s a low cost, one man job and it suits our farm really well. We are well organised and it takes about 45 mins to move the single strand of electric poly wire, water trough and move a mob of just over 200 head of cattle. We have not used a wormer on the farm for 5 years now, since we’ve been using herbal leys. The combination of regular moves and anthelmintic plants means the worm burden is low and they are grazing fresh pasture very regularly. We don’t tend to suffer summer fly problems either, so ‘we seldom see the vet.’

So how do the herbal leys fit into the arable rotation? After several years of tweaking the system, we now tend to graze the grass quite hard in the winter time, have another grazing early spring and then we desiccate it with glyphosate in May and then put a summer cover crop into it. This helps to break down the sward and reduce any potential allelopathic effect of the dying grasses on the following wheat crop and it also gets us a cover crop to graze in autumn and cycle all those nutrients which have been captured by the cover crop. We then go in with winter wheat drilled in late September/early October into the grazed cover crop. We are working with the Wild Farmed team to try planting wheat into herbal leys to keep the herbal leys going a bit longer and produce some wheat at the same time. Watch this space; if it works it’s an exciting new avenue.’

‘We are in a new countryside stewardship agreement, having put all of our herbal leys into the SW17 nil fertiliser regime. We haven’t needed any fertilisers on our herbal leys since we’ve been mob-grazing them. They do so well without.’ Since George has been growing herbal leys for 5 years, the first ones are just coming out and the fields are going back into arable rotation. ‘The soil is much more friable than when the leys went in,’ says George. ‘It was in a field that had a real black grass problem and it’s a lot cleaner than it was prior to having the herbal ley. We have seen worm numbers increasing and dung beetles. It’s just a healthier environment.There’s an increase in farmland birds and a huge increase in numbers of small mammals, like voles which has led to an increase in kestrels and barn owls on the farm. It’s not just about improving soil health, it’s about improving everything. The whole life on the farm is better as a result of having more diversity in the rotation.

We have been using Cotswold Seeds ever since we decided to grow herbal leys,’ says George. ‘They are always friendly and efficient. I am really pleased with the vigour of the seeds and establishment. They’re a great asset to have at the end of the phone.

‘The farming industry is facing huge challenges,’ says George. ‘We are at a crossroads. In my mind the best thing we can do here is make ourselves as resilient to change - economic, climate, International trade as possible - by improving soil health and finding a route to market for our cattle by shortening the supply chain. That’s the direction I see this farm going in.’

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