

Thriplow Farms

Goodbye cultivators, tractors and Wagyu

2015 Annual Report

I suppose the biggest thing to happen this year has been a rather fundamental change in the Wagyu situation. This is what I wrote almost exactly 12 months ago:

“The Wagyu herd continues to grow, and I continue to have no real plan what I am doing with them. The total herd is up to about 60 now (doubled from 2013), and my first animals will visit the abattoir at some point in the coming spring.”

Unfortunately I had reached a point where it was no longer a hobby, but neither was it a business. The truth is that I am no stockman, and was not enjoying my task, especially one which was complicated by embryo transfers and calvings spaced out randomly throughout the year. The options, as I saw them, were to go big, or go home. After months of agonising, I decided on the latter. Most of the animals left that spring, but the last remaining ones are scheduled to move down to Somerset any day now. It was fun (in parts) whilst it lasted. And as a bonus I have three chest freezers full of this:



Back in the real world, once again winter was very mild, but that did not translate into a warm spring. Instead, the cool conditions carried on right through into April, playing havoc with our spring crops, which didn't want to grow at all. As the year wore on, everything was

looking pretty good, but the dreaded late spring/early summer drought was lurking. From mid May to the beginning of July - the critical time for fast growing plants - we had only 20mm of rain. When we finally caught some, it was just in time for the wheat, but too late for everything else. What could have been a record breaker, as was the case in many parts of the country, turned into a bit of a unfortunately-not-damp squib.

Wheat

10.42t/ha is actually our fourth best ever wheat harvest. First wheats averaged 10.38t/ha, with no varieties standing out particularly. We grew Santiago, Conqueror, KWS Croft and a seed crop of Reflection. The only real variations were due to soil type, with the lighter end of the farm starting at 8.48t/ha, going up to an almost-record 12.69t/ha on the consistently brilliant Stocks 2.

One interesting result came when we compared “normal” wheat in 125mm rows with wider, no-till, drilling at 250mm spacing. The two fields, HC 6 & HC 9, had the same cropping history, and were drilled on successive days with the same varieties. Throughout the year, they were treated identically. HC 6, with the wider rows, yielded 0.2t/ha less than HC 9, which is what we would expect; the conclusion being wider rows had little or no effect. The other field we drilled with wide rows, Park, is usually the farm’s highest yielder. It was a bit disappointing this year at 11.94t/ha. However, there was no scientific comparison to Stocks 2, as they were drilled around three weeks apart, and with different varieties.

The other trial was on HC 1, where we drilled 20% of the field three weeks early, and then grazed with sheep. I think I made a large mistake by sowing that section too thinly, and come harvest the yield was around 1t/ha lower. In a year when the wheat price is around £100/t, we roughly broke even as there had been many saved costs. I had intended to repeat the experiment this year, but conditions haven’t allowed it.

We grew one, very large (65ha) field of second wheat, which yielded an excellent 11.39t/ha. Probably the best yield of second wheat we’ve ever had?

There was only one field of wheat after sugar beet, at the poorer end of the farm. It was planted with Conqueror and yielded 8.02t/ha - not surprisingly the worst result of the year. One third of the field had been ploughed after the sugar beet was lifted, and the rest min-tilled (and one small area was direct drilled). We couldn't see any difference across the field, apart from more weeds in the ploughed area. This was the third year we have run an experiment, and the second time ploughing has shown no benefit. In 2015 we have established all our wheat after sugar beet by throwing the seed onto the ground with a big spinner, and then simply cultivating it in. So far it seems to have done a good job.

Oilseed Rape

On to the worse news...

Oilseed rape yielded pretty poorly in this area, and we averaged 3.28t/ha. This would probably be about par, or slightly above given that it was all grown on our lighter, more drought-prone, land. There were two varieties, Marathon & Incentive, neither of which seemed much better than the other.

We switched to fully no-till / direct drilling for our rapeseed this year, which actually had a very positive effect on weed control. In the small areas where we did cultivate, there were many, many times more weeds, in particular blackgrass and hedge mustard. For 2015/6 we have again no-tilled all the rape, and have mainly skipped out using any pre-emergent herbicides, which is a large cost saving. One field, HC 8, was grown with a companion crop of buckwheat, lentil & fenugreek. It wasn't possible to see a particular benefit, but neither was there a downside; this year all the rapeseed fields have some sort of companion crop.

Finally, I should mention flea beetles. For those that don't know, we used to be able to coat rapeseed with a neonicotinoid insecticide, which killed off these pests when they ate the seedlings. In 2014 it was banned, so we had to go without. That summer, after the oilseed rape was planted, we had a biblical plague of flea beetles. It was fairly rough, but in the end all the crops came through and made it to harvest - in contrast to all our neighbours who lost at least some of their fields. What was the difference? I don't know for sure, but the only thing we really did that others didn't was no-till. I think this is maybe something worthy of

investigation, but those who know more about it than me do not seem to agree. This year we were allowed to use the neonicotinoids again, which we did on 40% of our area. At this point it looks to have been a waste of money - we shan't be using it next year (assuming we grow any at all, as the price is so low).

Sugar Beet

I think it would be fair to say sugar beet has been a disaster in 2015. So far we have harvested just over half our area, and the average yield is 54t/ha. Our five year average yield is 85t/ha, and has not been below 80t/ha for a decade. You have to go back another 10 years before that to get into the 50s. I would hope the last field lifted will bring the average up to 60-something, but still it's very disappointing, to say the least. However, neighbours that I've asked have also had poor years, which is something of a Schadenfreude-style consolation.

We did run a bit of an experiment with BBRO (the British Beet Research Organisation), and planted some beet using strip-till, and some with no-till. Luckily it was only a small area, as neither method yielded as much as the ploughed areas. One benefit big was, again, much fewer weeds with the no-till.

The big news is that next year, for the first time in memory, we will not be growing any sugar beet at all. This year the price was £24/t, which was marginal, and next year it is £20. When you look at the long-term negative soil effects from growing and harvesting the crop, it just does not add up for us. The boss is sad - but I did it before he could stop me.

Beans

Once again, a break crop that has not performed this year. Winter Wizard beans yielded a disappointing but not disastrous 3.80t/ha. Spring Fuegos yielded a disappointing *and* disastrous 1.48t/ha. this was made up of one normal field at 2.15t/ha, and one after sugar beet at 1.22t/ha. In last year's annual report I hoped we would not be in this situation. Perhaps I should not have tempted fate.

All our crop prices are poor at the moment, but beans at around £120/t are particularly bad. Without doubt, the spring beans, along with oilseed rape, have lost money in 2015.

Peas

We've been growing the same variety, Prophet, for the last eight years. Finally, its time has come. Not for any agronomic reason but because next year we have signed a contract to grow Sakura, which carries a £100/t premium - that's a 70% bonus.

The yields were reasonable this year, considering the drought. An average of 3.32t/ha is skewed downwards a bit because we killed off 7% of the crop before it was mature, due to a particularly bad weed infestation.

Spring Barley

The last spring barley crop here was over a decade ago, so it was a new one for me. The reason we planted it was mainly to try and control some severe blackgrass weed problems in two fields. In this respect, it has done a truly magnificent job. We are actually repeating the crop on those two fields again this year, to try and really get on top of the problem.



“no-till” spring barley after sugar beet

Yield-wise it was not great, with an average of 5.70t/ha. The excuse on one field was that it had come out of late-lifted sugar beet, and so the soil was in fairly bad condition. Still, one part of that field did yield 8-9t/ha, so the potential was there. The other field had no real excuse, other than that it was drilled too deep (by myself) and a significant proportion of the plants never made it to the surface. The variety, Propino, has produced a good sample for malting, so at some point it will end up in a barrel of beer.

Grain Maize

Another “oh dear” moment. This small field grew a great crop of grass between harvest 2014 and spring 2015. It ended up with a local dairy farmer, and made quite a lot of money...which was then squandered on trying to grow a crop of maize. For several reasons, it was not planted until May 21st, which, as it turns out, was way too late. As was predicted by an agronomist in about July, it ended up as silage back at the same dairy farm who took the grass earlier in the year. I think we will break even, just.



Some of the maize grew well. Most didn't

Livestock

I've already covered the Wagyu situation, but that does not mean we are out of the cattle business. In May, 80 dairy cross yearlings turned up on an artichoke, promptly broke a fence and escaped. Two hours later, with the help of half a dozen people and a dog, they were recovered. It was not a good start. For the next five months they grazed our herbal ley which is growing on one of the normally-arable fields. This was mostly trouble free, aside from some eye problems that needed several vet visits. We managed to keep the death count to one, although by the time this particular animal was found, quite literally off in the long grass, it had reached a point where the knacker described it as “the worst thing I've ever seen”. By October, when they left, we had yielded 327kg/ha of beef, which was OK but not quite as high as hoped.



Once again we have grown plenty of cover crops, which are being grazed by several flocks of sheep - peaking at 2,974 animals at the end of November. It has been a strange year for cover crops, as they looked fairly poor in October, only to double in size with the very warm November weather. As a result, the sheep will not be gone until January, when normally it would be December.

Machinery

A relatively exciting year for the machinery enthusiasts. We got rid of two 4,600l Berthoud trailed sprayers, and replaced them with a single Horsch trailed 6,000l machine plus a 13,000l bowser. The sprayer is a very clever thing, with special booms which control their height as if by magic, meaning they can be set much closer to the ground. It has not been without flaws though, and we still wait for some electronic problems to be solved. Moving from two sprayers to one plus a bowser allows us to use machinery much more efficiently; the sprayer can spray for a much higher proportion of the day, since it does not have to track back to farm and waste time filling up every 20-40 hectares.

Originally the plan had been to pull the new sprayer with our old Fendt 820, but then we were tempted into swapping that for a new Fendt 724, which has been an excellent tractor so far. In August we also sold the Challenger 765, for an absurdly low price, to a farm in Germany. This will not be replaced, which means for probably the first time in history, we finish the year with less tractor horsepower than we started with - 680 vs 975.



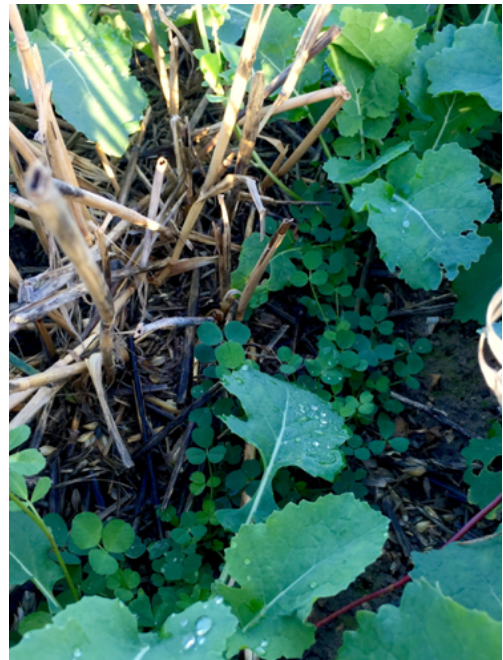
Experiments

If you're not moving forwards, you're going backwards. If you're not making mistakes, you're not trying hard enough. Etc etc. All ways of saying that we need to constantly keep improving the farm, or as Winston Churchill said:

“To improve is to change; to be perfect is to change often”

Here is what we are doing this year:

- Companion Cropping - The experiment has increased from last year, when it was one field. Now all the oilseed rape has a companion crop. We are trying three different blends of plants, but perhaps the most interesting is where we have mixed in lucerne. This is a perennial nitrogen fixing plant, and the plan is to keep it in the field indefinitely. It will grow with the following wheat crop, and theoretically should mean we need to add less artificial nitrogen fertiliser.



Oilseed rape & lucerne

- Bi-cropping - One field of spring peas will be planted together with spring rapeseed. They can then be harvested at the same time, and separated at the grainstore.

- Grain Maize - We are growing this again, and given 2015's result, I think it still counts as an experiment. The drilling method, drilling date, and fertiliser regime will be tweaked.

- Blended varieties - A bit of a boring experiment really, but we have blended four different wheat varieties together in a single field. Theoretically this should make them all less susceptible to diseases. It will be difficult to measure.

- Agronomy - It's a bit of a logistical pain, but we now have two agronomists, with very different outlooks. I feel we are trapped in a cycle of chemical use which doesn't really benefit us as a farm, only the chemical manufacturers and suppliers. Last year there were several times we applied unnecessary (and expensive) chemicals, and I want that to stop.

- Different cropping - I don't know if this counts as an experiment, but for harvest 2016 we will grow four new crops. One has been on the farm before, winter barley, but the other three are totally new; winter & spring oats, and spring linseed.

The future

Once again, it's really the low prices that dominate our thinking, and there's not much good news on the horizon. We are trying hard to reduce costs and increase efficiency (although buying new tractors does not fit too well with the philosophy). I've finished my Nuffield studies now, and the full report can be found here:

<http://thriplow-farms.co.uk/David-Walston-Nuffield-Report-2015.pdf>

To cut a long story short, it says that we need to reverse the (relatively easily measurable) decline in the quality and productivity of our soils, but the trick is doing it in a way that is also economical. I think it's possible, and some of the things I have written about above are attempts to do just that. In addition to the cover crops, companion crops, and livestock, we have ditched the cultivators entirely and gone fully no-till. This does not just save money, but also time (I went on holiday in early September as there was nothing to do). More importantly it should slow or halt the destruction of our soil's organic matter, which is the real key.

The presentation I had to give at the annual Nuffield conference is also on YouTube now. It is unfortunately a terrible quality video, and they have cut off the last part, although it was merely a rather silly joke about having fun when you're meant to be working.

<https://www.youtube.com/watch?v=V0Ky8qm9moU>

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