Thriplow Farms

The Legend of Zzzelda

Annual Report XLVIII - 2021

The year was, I would guess, 1998, possibly 1999. I was around the age of 16. A letter arrived at the farm, addressed to myself, from the boss of Claas UK. It asked me whether I would like to go to Germany, to have a tour of the factory at Harsewinkel - of course I would, never turn down a freebie. I assumed that my dad had organised this, but he claimed ignorance, and I accepted the invite.

Some short time later I was dropped off at Stansted, and took a plane to wherever the nearest airport was. There, someone took me to Harsewinkel, and deposited me in the small hotel that all the factory's visitors stayed in. That evening, a nice German engineer took me out for a meal. This must have been incredibly boring for him, missing family time to dine a clueless adolescent. The only thing I remember really from the meal was that as he talked to me about farming (of which I knew very little), he referred often to a machine called a Plug, which was used to Plug the fields. It took me quite a while to realise what he was referring to, and I still think of it when explaining to my children yet another ridiculous English pronunciation.

After the meal he dropped me back at the hotel, where I was at a loose end. It didn't take long to discover that the TV in my room had several pay-per-view options. One was the kind of thing which you can easily imagine would be available in German business hotels, the other was a Super Nintendo gaming console. On there was a game that I had played, in what felt to a 16 year old was the dim and distant past, but really was probably only three or four years previously:

The Legend of Zelda: A Link to the Past

This had been an absolute favourite of mine, and so I got stuck in with gusto, only going to bed when I couldn't keep my eyes open any longer, God knows what time that was. Luckily

I had arranged a wake-up call for a few hours after that, and I managed to stumble out of bed, 'ready' for my tour of the factory. Again, it was along time ago, so I don't recall many of the details, but I do remember being impressed by the laser cutting tools. Unfortunately, the second part of the morning's tour was a talk by another German engineer.

Picture the scene: There are only two people in a room. One is giving a talk on the details of building combine parts, the other is an only-vaguely-interested but exceedingly tired 16 year old. What is the absolute worst thing that could happen? Yes, I fell asleep. What do you do if you're giving the presentation in this situation? It still makes me cringe with embarrassment to think about it now. I only hope that the poor guy gets some good value out of it now, telling his friends about me, the absolute cretin. If you're out there Mr Engineer, I'm sorry.



A German engineer's view

In better news, the farm was actually OK this year, halting a five year slide. Indeed, compared to 2020, it was almost nirvana. The biggest problem was actually one of expectations vs reality, as although most of the crops performed OK, they had looked really

excellent pre-harvest, leading to some very optimistic yield predictions in our annual farm sweepstake. For whatever reason - perhaps the dry and cold April, maybe the hot and dry mid June, or perhaps the lack of sunshine right at the end of the grain filling period - sadly we ended up with huge quantities of straw, way out of proportion with the more modest amounts of grain.

2021 gave us the wettest dry harvest anyone has ever seen. It actually started out as a wet wet harvest, and a decent weather market opened up for new crop wheat at the end of July and start of August. At one point there was a $\pm 30/t$ premium for wheat that could be collected by the first week of August, compared to that which was available later in the month. This meant there was a big incentive for farmers - such as us - with an ability to dry grain, to fire up their burners. We sold around 1,000t of wheat, almost a third of the entire crop, to be moved in this period of early August, which is two or three times as much as normal. There were some nervous moments, waiting for the weather to come good enough to

allow the combine to work, but also leaving it long enough to get as much natural drying as possible. In the end it all worked out well, with a nice sense of satisfaction for tapping into a lucrative little market for the short time it was available.

It was after this first week of August when the weather really got weird. Although there was hardly ever any actual rain, the relative humidity rarely dropped below 100% for more than a few hours in the middle of the day. This meant huge dews every morning, and then no actual drying until well into the afternoon, even though it was very warm, and very windy. One memorable day saw us testing the wheat at 17% at 10am, but then taking until after 6pm to drop below 16% so we could get going. With only a few hours per day when it was actually possible to cut anything, harvest dragged on until August 29th - a good two weeks after it would have finished under more normal conditions.

Still, we were some of the lucky ones, with a combination of having our own drying facilities, and not having to wait for (often non-existent) lorries to take away already harvested grain to make enough space to keep on cutting more. Many farmers near us were still harvesting well past the middle of September, which is normally unheard of.

Here, in more detail, is how it all unfolded.

Wheat

After we cut the very first field of wheat on July 22nd, I plugged the result into my historic results, to come up with a rough yield projection. The number I came up with was 9.18t/ha. This I did not want to believe, as I had pessimistically guessed that the average would be almost 10t/ha, and really I was hoping for it to be significantly more. Four weeks later, on August 19th, we cut the final field, and the end result was ... 9.18t/ha! Although this is probably the only time where my first projection exactly matched reality, it is normally pretty good. Maybe I should start taking more notice of it in the future?

The lighter end of the farm was growing almost exclusively KWS Crispin, an unglamorous variety which seems to perform consistently well for us. Yields ranged from 7.53t/ha up to 8.31t/ha, although one field really seemed to benefit from an application of

digested sewage sludge last autumn, and it yielded an excellent 9.64t/ha. In the middle of these fields of Crispin was one block of Gleam, which scored close to par, 8.06t/ha.

Last year we grew a small amount of KWS Extase, and in that year's Annual Report I wrote about how badly it had performed:

"I had planned to grow a large amount in 2020/21, but that plan went on the back burner PDQ."

Consequently, we grew an even smaller amount for Harvest '21 - only 6ha. This turned out to have been the correct move, as although it did look great in July ("This field will easily yield 10t/ha", said Dick), the real result of 8.04t/ha was just plain poor. Sorry Extase, you just don't work here. Have a nice life.

Another variety that has had its last appearance on the farm is Freiston. It dropped off the Recommended List several years ago, but we persevered. It always looks amazing from June onwards, as the ears are huge and highly impressive. It was not a bad performer at all in '21, ranging from 8.90 to 9.49t/ha, but neither was it spectacular. Combine this with a worsening disease resistance - meaning the need to spray more fungicides - and its time is up.

We grew one field of Graham this year, but it was a big field, 64ha, equivalent to 90 professional football pitches. Or to think of it another way, 0.0000303 times the size of Wales. When we planted this crop in October 2020, conditions were poor. Drilling the headland was really marginal, and we only just managed to get it in the ground, with the tractor slipping all over the place. Thankfully, the middle of the field was significantly better. This difference really showed up at harvest. Often the headland can actually be better than the middle of the field, so when the first loads came off the combine at less than 8.5t/ha, I was pretty depressed. However, as we got into the main part of the field, these climbed steadily, with some parts producing well over 10t/ha. In the end it did 9.67t/ha, which was a really nice feeling,



having been mentally prepared for well under 9t/ha. This is another boring-but-fine variety, and it's in the ground again for next harvest.



Unexpected item in growing area. The perils of farming close to Duxford IWM

Towards the northern end of the farm we had one field, grown for commercial seed, of SY Insitor. This produced a faintly ridiculous quantity of straw, slowing the combine down quite a bit. If the grain had been in proportion, it could have been a record breaker, but in the end it was a reasonable 9.70t/ha. There was a serious rush to get this field harvested before a forecast patch of rain, as it was our last field of wheat due to be planted ASAP with oilseed rape.

The timing was bad, as Dick - the usual combine driver - had to go to a funeral, so I took his place. Nik took my job running the grainstore, which left us a trailer driver short. Up stepped Sabrina, taking a day off work, to keep things moving. This was much needed assistance, as we finished with literally minutes to spare before the rain. A great effort all around.

Finally (I was highly indecisive choosing which varieties to grow for this year, so in the end we did all of them), comes the KWS Siskin. This was our best performer, with one field at 9.43t/ha, and the other at 10.33t/ha, our only field in double figures. Unfortunately for KWS, I don't credit the variety for this yield, as it was our other field that had received the sewage. This year, sewage seemed to give us around 1t/ha of extra yield - but more about that later on. So what is the reward for getting the best results? Sorry Siskin, your time here is also up. Thank you for four decent years.

Oilseed Rape

If you ignore 2018, this was actually our best oilseed rape harvest since 2015. This is definitely not to say that it was brilliant, as we ended up with 2.66t/ha. Again we drilled the crop early, finishing by the first week of August. We also used starter fertiliser, but I am not at all convinced that this did an awful lot of good. The weather after drilling was not great at all, being very hot and dry for the first two weeks, and then just dry for all of September.



Oilseed Rape often looks the best before Christmas - it's downhill from then onwards

It goes without saying the Cabbage Stem Flea Beetle was present, in some places more than others. Establishing the crop is never a problem for us, it is always the larval damage in the spring, and again this proved to be the case. Luckily though, drought was not such a big factor in 2021 compared to 2020, and so the plants did not suffer quite so badly.

The first field we harvested - variety Elgar - was actually the best, yielding 3.34t/ha. These days, anything over 3t really seems like a big win. The other three fields produced between 2.5 to justunder-3t/ha. The only other variety, Codex, fared the worst, 2.12t/ha, although I suspect that was down to the location and the conditions more than anything else.

The real saving grace for this crop now are the prices, which have gone through the roof. Just before harvest started, old crop oilseed rape went over £500/t, and new crop (from Harvest 2021) was over £400. I've now sold all of ours, at an average price of £482/t, which seems incredible given that it has always been in the region of £250-350/t during my short career. However, as I write this now, it is worth significantly more than £600/t; truly extraordinary! You don't need a high yield at these prices to make some money.

Oats

For the first time ever, this year we grew more than one variety of spring oats at a field scale. In addition to our customary Elyann, we also had Isabel & Lion, both with the aim of producing commercial seed crops for other famers to plant in 2022. At the risk of getting too repetitive, these were also a relative disappointment. In stark contrast to a couple of years back, we had some seriously tall crops this year, some of them reaching over five feet high - almost double their usual height. The final average was 5.76t/ha, tying with our second best result, but this didn't feel brilliant. Even the lady who came to inspect our Lion seed crop commented that it looked "excellent" pre-harvest, so it wasn't just farm based optimism.

In truth, there wasn't a great deal to choose between the varieties. We started off with Elyann, on what I would consider to be one of the least productive fields on the farm. When this yielded 6.1t/ha, I thought we were definitely in for a bumper year, as things could only get better. In reality, it wasn't until the last field that we got back up over 6t/ha again, with everything else beginning with a 5.

Lion, which should yield the same as Elyann, but with better quality seed, was where we found the super tall plants. There was a brief moment of excitement in the first field, as an arithmetic error meant I thought the yield was almost 8t/ha - when in actual fact it was 5.85t/ha. Quite a difference! The other field yielded just over 5t/ha.



Isabel is supposed to be the improved version of Elyann, with similar quality, but improved yields and agronomic characteristics. For some reason never fully established, this crop never looked good from day one. I do wonder whether we did something wrong at drilling, or soon afterwards, but it was always thin and uneven. The final yield was 5.44t/ha,

so not a disaster, but not good considering it was on a supposedly productive field. Still, this variety will form the backbone of our oats next year.

What will really make or break the oats is where the grain ends up going. The difference between animal feed $(\pounds 150/t)$, milling $(\pounds 190/t)$ and a seed crop (250/t) is massive. It's sad then that the germination results from our seed crops don't look good enough to make the grade. This is something that we do sometimes struggle with in spring oats, which is strange as we never seem to have similar problems in other crops.

Beans

After an excellent 2019, and a terrible 2020, beans this year were back to somewhere in the middle. Again it was not a great autumn for establishing the crop, and they took a long time to get out of the ground and start growing. We had two fields, both planted with the same variety, Tundra, within a two day period, and only about half a mile apart. This is where the similarities ended, as one field had a significant part which just never really grew, and then died off very early in the summer; the other field was always much better. I have no explanation for this, although I suspect that the poor field may have suffered from Fusarium Foot Rot in places.

Come harvest time, the bad field scored 2.59t/ha - with some areas under 1t/ha, and the good field did 4.11t/ha - with some areas over 5t/ha. The overall average between the two was 3.36t/ha, which is close to our five year mean.

Peas

You must at least give me some credit for effort, when it comes to persevering with peas. There was a bit of a change of plan this year, and we decided to try out growing a vining pea variety, Tomahawk. Vining peas are what Birdseye grows to put in your freezer, and they are notoriously difficult to harvest, as they often collapse flat to the ground as harvest approaches. This filled Dick with dread, but not so much myself, as I avoid the combine like the plague during pea cutting season. Tomahawk is also an early maturing variety, meaning that harvest is in mid-July, some two to three weeks earlier than standard combining peas. This works really well for us from a harvest logistics point of view, but as it turns out, it's also great news for birds.



Looking good in mid May

Having finally managed to get a really good looking crop of peas established, it was optimism all around. This was tempered by dry and cold conditions in the spring, but still I felt maybe we were on course for a decent result. What we then discovered was that, because our peas were miles earlier than any of our neighbours', the rook and pigeon population of South Cambridgeshire discovered quickly that we were the place to come for fresh greenery in June. What had been a pretty even looking

crop was crucified in whole swathes of the field - a sad state of affairs. When the combine went in, perhaps a third of the total area did still have some crop there, but it was just too low to physically be picked up. Overall, we just scraped over 1t/ha, and thankfully the quality of the peas was good enough to be used for seed, so they are worth a decent amount of money. Will we grow some next year? Probably, I appear to be a masochist.

Barley

Winter barley was a surprise addition to the line up for 2021. It only came about because the start of August 2020 was so incredibly hot and dry that I thought it was too big a risk to try and plant more oilseed rape. Not wanting to grow any more wheat, I thought it would be interesting to dabble with some malting barleys instead.

In one field we grew the modern malting variety, Craft. This is a pretty standard sort of thing, and whilst it yields less than a feed variety, the end product should be worth significantly more. So it turned out, with a yield of 6.14t/ha. When you plug this into the calculator, combining a lower growing cost - due to reduced fertiliser requirements - with a

higher selling price, it comes out as being financially equivalent to somewhere around 8-8.5t/ ha of feed barley. I think this result is something around about par for expectations, so it's OK overall.

The other field seemed to suffer from a bit of a time warp, as it was planted with Maris Otter - a variety that was already around when my dad started farming in the '70s. This oddity has stuck around for so long, in spite of its terrible yields and questionable agronomics, simply because no one has yet managed to breed a barley that can produce such a high quality malt. So next time you're sipping small batch artisanal ale (produced anywhere in the world), it very possibly could be made with Maris Otter malt, which is grown exclusively in the UK.

Our field yielded a measly sounding 4.87t/ha (although in reality it was over 5, as we sprayed several hectares off due to a bad brome infestation), but as with the Craft, the calculator shows a similar financial yield to 8-8.5t/ha of feed barley. Again, this was OK.



Coming to a beer near you

However, I do not like growing barley, and this year was probably a one-off.

CoVeg

CoVeg did exist in 2021, but it was a shadow of its former self. Most people (and I have to include myself in this to some degree) got back in to their old lives, and found that they did not have as much time to go and pick vegetables as they had in 2020. A hardcore group of people put in a lot of their time to make it all work, but when we put out the call to help with harvest in the summer, no one turned up - a sharp contrast to the 30, or even 40 people that would appear every weekend in 2020. Even so, there was a good amount of produce sent off to good causes. What happens next year is yet to be decided.

Machinery

My fetish for buying Makita power tools continues unabated, but aside from that, another lean year.

Experiments

Our own trials revolved mainly around fertilisers this year. There was a continuation of last year's nitrogen rate trials in wheat, with a very different result. In 2020 there had been not much point using anything much above 150kg of N, whereas (probably due to more available moisture), the optimal rate was higher in 2021, at around 200 kg or so. I think that this is the reason why the fields where we applied digested sewage saw such a big yield bump - although there is also a large amount of phosphate in this, besides the nitrogen.

Speaking of phosphates, following on from someone else's trials last year, I decided to apply some TSP (a very concentrated form of phosphate fertiliser) to some of our spring crops. Even where there was a spreader malfunction, and the rate was astronomical, this made zero difference to anything. A waste of money.

Finally on the fertiliser, as I mentioned above, we also applied nitrogen to our new oilseed rape crops at the time of drilling. This was done at a variety of rates, from zero up to quite a bit, and there was no real noticeable difference come harvest time. I think the weather after drilling plays a much bigger part, but next year I would like to try sewage instead of artificial fertiliser.

The remaining trials that were run on the farm involved various charms and snake oils, none of which showed any benefit at all. At some point we may realise it's best to plant the seeds, and just come back at harvest...!

The future

It's really quite difficult to try and think about what the next 10 years will bring for the farm. On the one hand, we have what looks on the surface to be very good commodity prices - wheat over £200/t, oilseed rape over £600. On the other side of the coin, our BPS subsidy cheque has reduced by 17% (£35,000) this year, and will cease to exist at all in 2027. Perhaps even more worrying is the rampant inflation in the costs of what we need to grow our crops. Nothing exemplifies this better than the price of fertiliser, which is now triple what we paid for it last season. Some other inputs have doubled in price, and that's if you can get hold of them at all. Part of these price rises are due to supply & demand, part is gouging by suppliers who want a piece of the commodity pie.

At the end of last year's report, I wrote the following:

"One thing that is made possible by the removal of BPS, and the removal of our EU status, is the reformation of our farming laws and incentives. I do believe that there is scope for serious improvement in many farming practices, but I am much more sceptical that they can be done whilst maintaining financial viability of farms."

Unfortunately, at the moment it seems that what we feared is indeed happening. Recently the new incentives for farming "Sustainably" have been announced, and it would be polite to say that they are underwhelming. The payment rates are set at such a low level that it's probably worth doing if you're already doing it, but no one who actually understands or cares about their profitability is going to change their farming to suit the scheme. We have a similar problem with the existing Countryside Stewardship program, whose payment rates have been unchanged for a decade, and now do not reflect the actual cost of complying with them. To be fair, this is being reviewed in the new year, but on past form I am not holding my breath for any significant changes.

I also wrote last year about Brexit, and how it might affect us. Again, unfortunately, the news is not good. A Conservative government, so long considered to be on the side of farmers and the countryside, has shown literally zero regard for the entire agricultural sector in its haste to try and secure trade deals at any cost, regardless of what's actually in them. As a friend of mine recently tweeted:

"Farmers voting now for the Conservatives in a vote that does not have Corbyn as the terrible alternative, and having seen that this government is prepared to break their word and sign trade deals that throw farmers under the bus, deserve everything they get IMO"

What a wingeing farmer I sound like. I shouldn't really complain too much about an uncertain future, because this year has been quite good really. A return to average yields, with above average prices, mean the financial performance of the business will be respectable. Farm diversification projects continue with another imminent barn conversion, and we also recently built the farm's first new barn for almost 40 years. So I'm not sad about the future of the farm, just uncertain. Is that different to any of the other years I've written this report? No, not really.

David Walston December 16 2021 <u>@OOOfarmer</u>



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