

# Thriplow Farms

2013

## So near and yet so far

This was the year when we could have had a record harvest - but didn't. It did not start off very well; the spring was incredibly cold. So much so that sugar beet and pea planting was a month later than normal, and the oilseed rape was all eaten by hungry pigeons. In June there was a drought and heat wave which saw the crops, which by this point were looking great, suffer badly. The cows were also affected badly as the heat scuppered an embryo transfer program - luckily before the embryos were implanted. It also made them unusually thirsty, meaning a lot of extra water bowser refilling duties.

One good bit of rain in late June would have made all the difference, but it never came. Harvest was late, but the weather was very kind, and it was all over in a mere 34 days (as well as several nights). The good weather continued for the drilling season, and the end of the year has been as warm as the start was cold. Good for the cover crops, not so good for keeping disease off the young wheat plants.

It is now soaking wet, and we still have one field of sugar beet to harvest. We really need it to dry out before the middle of February, so please cross your fingers for us to get dry weather soon.

### Wheat

Much better than last year, thank God. Across the farm, we averaged 9.21t/ha, which is just about bang on our 10 year average. Prices have also gone up from last year, averaging £172/t so far, although there is a bit more to sell which will bring this down slightly. Some even went off the farm at the beginning of harvest for over £200/t, which is always a good feeling.

First wheats were Oakley and Santiago. The Oakleys were on the poorer end of the farm, and yielded from 8.02t/ha to 8.58t/ha. Two adjacent fields saw a trial whereby one was direct drilling, and the other had our conventional min-till system. The direct-drilled field yielded around 2% less, although they were drilled on very different dates so it is hard to draw a complete conclusion. After many years growing this variety, its time has finally come, and we did not save any seed to plant for the following harvest. Santiago yielded higher than Oakley, but it was grown on better land. The best field yielded 11.5t/ha, with patches in the middle of the crop showing a real 16+t/ha on a calibrated yield monitor.

Wheats grown after sugar beet were interesting this year. At the bad end of the scale, one field planted in a very wet and cold December only managed a disappointing 5.55t/ha. Elsewhere we experimented with not using the plough after the sugar beet harvest. This was not a wild success, with the ploughed field yielding 8.95t/ha, and the non-ploughed 7.26t/ha. We have continued the trials this year, with two sugar beet fields split down the middle to get an even better comparison. We have also changed

how the beet is harvested and carted off the field to reduce soil compaction, which will hopefully make a positive difference.

Second wheats averaged a relatively satisfying 8.76t/ha, and we grew a new variety called Conqueror. This variety seemed to show good vigour early on, and we are now using it for all our second wheats, and after sugar beet too.

Overall, not too bad. But with a bit of rain in the summer things could have been so much better, almost certainly beating our previous yield record of 10.7t/ha. Next year?

### **Oilseed Rape**

Well, I said it was not a record harvest, which is not entirely true. The oilseed rape, which got off to a very bad start indeed, yielded significantly higher than it ever has done before. The farm average of 4.37t/ha would have been even better if not for one bad field which yielded only 3.38t/ha.

Two varieties were used, PR46W21 and Rhino. PR46W21 had been a total failure the previous year, and had to be torn up and replanted with wheat. This year it was much better, yielding around 4.5t/ha.

The real story is the Rhino, which produced 5.07t/ha on one field. This was our first ever yield of over 5t/ha, and the fact it came on a very large (44.54ha) field was a welcome bonus.

The biggest problem with this crop at the moment is the price, which is currently less than £300/t. At this sort of level, it is roughly equal with beans, as the least profitable crop we grow. However, one major benefit is that rapeseed is harvested in July, spreading out the workload at a busy time of year.

### **Sugar Beet**

Another interesting year for this crop. Two of our three fields have been harvested so far, with the first yielding a lacklustre 78t/ha. This field had been badly flooded in the spring, and not all of it was actually planted. The yield from the planted crop was more like 82t/ha - not bad.

For the first time we established a field of sugar beet without a plough. At the end of February we had a StripCat strip-till machine come out to the farm on demo. This machine allows you to prepare only the bits of soil which will have plants growing in them, leaving the other 75% of the soil undisturbed. We had two problems however. The first was that after we used the machine, the weather turned so cold we had to wait a month to drill the sugar beet into it. By this time the soil had hardened up a lot, and the StripCat was long gone so we could not redo it. The second problem was that we could not always match up the strips with the sugar beet drill, and when they did not meet the seeds were not planted properly. This resulted in fewer plants growing than we would have liked. The field was measured as having 55,000 plants per hectare in the summer, about 40% lower than we aim for. Those plants that were there did indeed grow very well, and in the end the field yielded 70t/ha. The technique has potential, but it needs a lot more attention to detail than using the plough. We are trying it again this year, but with a different machine.

The bigger question is really: should we be growing sugar beet at all? Although there has been a 20% rise in the price we receive for it this year, we still lag far behind what our neighbours on the continent receive for the same product. Taking into account the long term damage that can be caused to the farm, mostly during harvesting, it is still a very marginal decision whether we will continue to grow it in the future.



*The StripCat in action*

## **Beans**

Another year, but still we are growing Wizard. We averaged exactly 4t/ha this year, with one field at 4.66t/ha. The other field had a serious weed problem and could only manage 3.26t/ha. An equally unexciting price means that beans are not really our favourite crop, but they will still stay in the rotation in a small way. We are even growing a new variety this coming year, but you will have to read on for that.

## **Peas**

Last year the pea harvest was so good, and the price so high, that it was probably the single most profitable crop that has ever been grown on this farm. This year we thought the yield was going to be even better, but of all the crops these were affected the most by drought. They died and were harvested about 2-3 weeks early, which is all time that should have been spent swelling the pods. Even so, we managed 4.36t/ha, which is no disaster. The price has fallen from £415/t last year to £328 now, but this still makes it a very useful crop; easily the best of the break crops.





*Waist high peas, before the drought*

### **Livestock**

There are now around 30 cows on the farm, roughly half of which are fullblood Wagyu. In the spring the first three animals will start their year-long finishing process to turn them into some very special beef.



*Two Wagyu bulls, born June 2013*

The sheep have far outnumbered the cattle this year. In the summer our cows could not get through a cover crop in time, and so 375 ewes brought in by a nearby grazier



helped them out. They were back again as more cover crops were planted after harvest, and at Christmas there were over 1,000 sheep on the farm. So far this has worked very well, and there may well be even more next year.



*Cover crop, pre grazing*

## **Experiments**

There are plenty of new things going on this year. We have trialled two new drills, an Aitchison T-Sem and a John Deere 750a. Both of these have been used to direct-drill wheat, and both the crops look good. The John Deere is particularly interesting as it is a disc drill, which is the only way to plant crops with very low soil disturbance.

We have drilled one field of oilseed rape with the same StripCat machine that we used for the sugar beet in the spring. Currently the crop appears strong, but whether it yields any more we will have to wait and see.

In October we drilled our first fields of beans directly into the stubble without ploughing, as we have always done in the past. So far the results have been good, although it is very heavy ground and in places the crows have managed to pull up some of the seeds where they were not covered properly with soil. In the spring we will use the same method to grow a field of spring beans for the first time in many years. These will be drilled into a field that has had a cover crop growing on it since harvest, and was grazed by sheep just before Christmas. On a similar theme, we will also try growing peas without ploughing, again into a grazed cover crop.

Fertiliser use has changed dramatically. We have used no solid phosphate fertilisers this year on any of the combinable crops; instead everything has been sprayed on in liquid form to be taken up by the leaf of the plant. Sugar beet will get some solid phosphate in a form known as DAP, which provides nitrogen as well. Potassium fertiliser will now be put on in a form called SOP, which is better for soil structure than what we used to use, MOP. This is a bit more expensive, but hopefully more efficient.





*Oilseed rape drilled with the StripCat*

The biggest experiment is taking place on Home field. This has been planted with a legume-rich herbal grass ley. This is a very diverse mix that includes several types of grass, white clover, red clover, sainfoin, trefoil, alsike, chicory and a few other bits and pieces. The idea is to mob graze the field with cattle to try and improve soil quality and fertility as quickly as possible. At the end of three years we can compare it to its neighbouring fields and see what, if any, benefit we have accrued.



*Herbal ley after two months*

## **The Future**

Someone at the Nuffield Farming Scholarship Trust was desperate enough to give me a scholarship, for which I am very grateful. It was my second application, which seems to be a bit of a family tradition. The topic I am studying is titled “Improving yields & profits by improving soils”, and I will be visiting Australia, New Zealand, South America, the USA, Canada and various parts of Europe to see what new ideas might be usable back in Thriplow. It promises to be a very interesting and busy 18 months.

David Walston

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