

Another harvest has just come to an end and so ends another farming year.

Harvest is always a hectic time of year and can be pretty stressful. It is the culmination of a year's work and these 6 weeks of harvest will determine how profitable a year we will have. It is both nerve-wracking and exciting at the same time; before we cut a field it is almost impossible to estimate its yield accurately and even more so the quality, so although we have a budget yield and have managed the crop for that yield, we don't know if we are right or wrong until the field is finished and the crop in the grain store.

We all look forward to harvest. We have spent all year growing the crop and most of June it seems has been spent cleaning barns and checking machinery ready for the start. This year, we took on 4 extra staff to help with harvest; every year the new members of the team bring an enthusiasm and an energy that is infectious. We also hire in 3 extra tractors and trailers for them to drive and no farmer or a student can resist a big new shiny piece of kit!

For me, the harvest period feels like it starts some time in early June. This is when we start clean the barns, check machinery, make a plan and try and get everyone off on holiday before the combines go into the fields in mid-July.

We have to wash the barns down to kill any grain mites and bugs that may eat the grain or cause it to deteriorate while in the store. If the barns are clean when the grain goes in and then it is looked after correctly, grains like wheat can be stored for years. If the grain goes in too damp, over 15 % moisture, then it will heat up and the bugs will start to multiply causing the quality of the grain to deteriorate very quickly, possibly making unsaleable.

Once the barns are clean we can start giving the machinery its final checks. As we only have a short window to harvest and then replant next year's crops we need to make sure that our machinery is reliable. Of course we can only do so much; most of our machines have to work in dusty conditions and have lots of moving parts, or they have to run through the soil which can be bone dry and very hard. We go through each piece of machinery checking nuts and bolts, greasing bearings and changing any worn or damaged parts. If anything looks very wrong then we call out the company who supplied it to help solve the problem. Almost as important is making sure that the electronic controls that talk to the tractors are up to date; it is not unusual to hitch a machine on only to find the tractor is new and so has a different version of the software that means it won't talk to the machine on the back!

We always try to have a plan for harvest. We know which crops will ripen first and last and which ones we need to harvest as a priority because they are better quality which could go if it rains at the wrong time. We also have to think about where we are sowing next year's crops such as oilseed rape. This is sown in mid-August, so we need to make sure the field is harvested and prepared for sowing in good time. Then there are the grain stores. We have to plan what crop goes where and how much can we send to a store without it being overloaded. Then there are our customers' expectations of when harvest will be finished. They may have game birds being released so they don't want our combines scaring them off, or they may just want a field of theirs for a party! Finally, there are all the small parts to be considered. Things like who is baling straw and from which field,

whether we need to apply lime to the fields before sowing and when can we do that, and making sure we have enough trailers to cart from our furthest fields or planning who we might ask to help for a day or two. We also sell 70 acres of grass for a neighbour to make hay out of. This really makes it feel like summer. He will cut it twice once in mid-June and then again in mid-August. We will then graze the grass with our sheep in the autumn.

Once we have done all this, we make sure that everyone has at least a week off before we start to make sure their batteries are recharged and they have spent some time with their families. This is our last chance for some time off before sowing ends in late October.

We normally start harvest around the 20th July. It never really varies more than 5 days either way unless there is a major weather event. The harvest workers start around the 15th to give them time to settle in and go through health and safety training and training on all the machines. Winter Barley is the first crop to cut as it always ripens early. It is always really nice to cut winter barley as it tests the machines before we get too busy and it gives us an idea of what the yields could be like. Once the barley is done, we move into the oilseed rape, normally around 25th July onwards. This is when harvest really gets going and we start to cut as much as we can every day. Once oilseed rape (OSR) is ripe it is essential to harvest it as soon as possible because the pods that contain the seed become very fragile; a strong wind or heavy rain could easily knock the seed out massively reducing the yields.

Before we finish the OSR the first wheats will be ready, so there is a big push to finish the rape and start the wheat. The earliest wheats are the milling wheats and need to be cut as soon as they are ripe and before they get rained on as this will reduce the quality. The wheat grown for animal feed is harvested later as the quality is not so critical.

Mid-August is our peak period. We have the last of the milling wheat to harvest, malting barley, milling oats, peas and the feed wheat all wanting to be cut at the same time. All these crops except the feed wheat must meet strict quality criteria. If we don't harvest them in time, then they will lose the quality and so be worth less. Peas, for example, need to be clean and have a good green colour to gain top price. If they are left in the field too long the sun will bleach the colour out of them and they will slowly fall over resulting in the combines picking up a lot of soil and stones which also stains the peas. Spring barley will also gradually fall over if left too long, or the heads of grain kink over and slowly fall off meaning they are unharvestable. Getting these crops harvested in the best condition requires us to keep checking them and to push the men and machines as hard as possible to get as many acres covered each day as possible.

Toward the end of August we finish the wheat and then harvest the beans and linseed. The beans are generally easier to harvest and don't spoil in the field so it feels a bit more relaxed. The linseed can come in in September and if the weather isn't sunny it can be very difficult to cut. Linseed is from the same family as flax which was used to make rope. It has the same characteristics and so if left too long the fibres become very tough and wrap around everything when they go through the combine causing all sorts of problems. We try to grow early ripening varieties to avoid trying to cut linseed in September. The combine-drivers hate cutting it and are always relieved when it is done.

Overall harvest takes approximately 6 weeks from start to finish. Summer 2018 was perfect and we cut almost every day for 6 weeks and got it all done. This year we had a week or so of damp weather in the middle but nothing serious. There have been years where we have had 3 weeks of rain in August which means harvest has dragged on in to the middle of September or later. Wet harvests are very frustrating and stressful. It takes longer to harvest a damp crop, it costs more to as you have to dry it, it is hard on the machinery and the farm staff are always on call so can't relax even when it is raining.

Harvest 2019 is now finished and it has generally been good. Our yields have been above average on everything apart from the spring oats and the linseed which suffered with a lack of water and the very hot weather in July.

We have cut approximate 1050 tons of barley, 685 tons of OSR, 5250 tons of wheat, 320 tons of oats, 150 tons of peas, 550 tons of beans and 40 tons of linseed. All this off about 3600 acres of land with two combine harvesters, 4 tractors and a team of 9 people working between 60 and 110 hour weeks since mid-July.

We had a few break downs but nothing that stopped us for more than a few hours until almost the end when a fairly large and critical part on one of the combines failed. Fortunately, we only had a couple of days left to do and the weather was dry so we parked it up and will repair it soon. Breakdowns are all part of harvest but are very frustrating as sometimes something very simple can fail but we have to wait for a part or remove what feels like half the combine to change it. Good harvest staff that know how to operate and look after the machines help a lot.

This year we had another good team. We had two engineering students, one from Wales and one from Essex, a local agricultural student from Froyle, a local self-employed guy and Mark Howard who many of you will know from Crondall. The students have a range of experience and backgrounds, but they all have an interest in agriculture and want the chance to gain experience and earn money. Some come back for several years which is great for us, but most come for one year then go elsewhere to see a different farming system. Two of them are still with us helping finish some of the little jobs like spreading manure and cultivating but they will all finish by mid-September.

Our final crop will be delivered in mid-September when we lamb our sheep. The lambs will be fattened outside on forage crops over winter and be sold in February.

The sheds are now full and we are already preparing for next year's harvest: we have sown the oilseed rape and this is growing on well, and we will sow the barley and the wheat at the end of September. Hopefully by mid-October things will start to quieten down and we can finally begin to relax.

