BURN DOWN

The delayed planting combined with the drought during the summer has left many crops a number of weeks behind where they would normally be at this time of year. Smaller tubers, lower dry matters and lower yields are all common in most crops at the moment and with prices likely to be higher this year many growers may be tempted to leave crops grow out for another couple of weeks. The decision when to burn down is not an easy one this season, as there are a number of other factors to consider.

Firstly, how much extra yield am I likely to get by delaying burn down? It’s actually difficult to say in the current situation of high soil temperatures and soil moisture deficits but most crops are unlikely to bulk much more than one tonne per hectare per week during September especially after the first week of the month. As day length shortens and temperatures drop, solar radiation and crop growth slows down significantly so the amount that the crop will bulk will be affected.

Secondly, will I have a delayed harvest? Obviously the later the crop is desiccated the slower skin set will be so there is the potential for harvest being delayed. Where this is unavoidable plan to get difficult fields lifted first. It is easier to work in lighter land closer to home as the days get shorter.

Thirdly, is the crop more susceptible to disease? Definitely, the longer the crop is left in the ground the more likely that damage from diseases, pests and machinery at harvest is likely to increase. Diseases like silver scurf, black scurf, bacterial soft rots all have the potential to increase. Pests such as slugs, wireworm and birds are also likely to cause more damage. Machinery damage will also increase as conditions deteriorate. On top of this, you have to bear in mind curing the crop as it goes into store will take longer as temperatures drop so the potential for things to go wrong increases here too.

Fourthly, are the dry matters high enough? Many crops are still below 20% DM at the moment and will rise as the crop matures, however crops with secondary growths may well have tubers much lower than this. Late maturing crops or those that have received high levels of nitrogen or those that have been irrigated are also struggling to make the desired levels. Carry out regular digs and test samples, then desiccate when dry matters are high enough bearing in mind that they may drop by up to one per cent post desiccation.

SECONDARY GROWTH

Handling crops with secondary growths is likely to cause the most headaches for growers this year. Unfortunately there are no hard and fast rules as to how to handle these crops each crop will have to be assessed individually. There are two types of secondary growths common in crops this year. Firstly those with knobs at one end or growth cracks, and secondly, those that grew new tubers from the daughter tubers.

Figure 1: New tuber formed from daughter tuber
Where knobs or growth cracks are evident these can be easily graded out and the remaining crop should store reasonably well. However where the secondary growth resulted in additional tubers from the daughter tuber identifying susceptible tubers will be difficult. It will be impossible to distinguish between the daughter tuber and granddaughters initially, however the daughter tuber will be more likely to break down due to infections like jelly end rot. This infection occurs when the heel end of the tuber becomes glassy since the starch has been moved into the grand daughter tuber. How much starch is removed depends on the amount of new growth. The tuber area around the glassy cells collapses and releases liquid and the skin becomes wrinkled.

The only practical way to anticipate this is to take samples prior to harvest. Cut the daughter tubers length wise and see if the flesh has a glassy texture to it (Fig 2.)

![Glassy texture in tuber](image)

If this is not easily identified take samples from each effected field, put them into a hot box, and inspect afterwards. The normal setting is 30°C for 12 hours however check manufacturers guidelines for different diseases. Don’t throw away the samples afterwards, keep them for a couple of days and see if there are any breakdowns. Bruising will show up quite quickly after the hot box but rots may take a bit longer.

When carrying out test digs record the presence or not of secondary growths. Also record if the crop was irrigated or not and how many applications. Thirdly record if the crop received Fazor (maleic hydracide) or not. Label each box going into store with the above information on them and keep the boxes from the same fields together in store. If there is trouble with any field or batch at least it can be identified and isolated relatively easily.

---

**STORE MAINTENANCE**

With the cereal harvest having been completed early in most areas now is a good time to prepare for the potato harvesting season. As well as the regular maintenance checks on machinery endeavour to give all stores a thorough inspection. Mechanically clean all surfaces that contain dust first and then disinfect them. Silver scurf spores for example will be present in dust and will spread to the new crop. Remember just one gram of dust can contain over 2000 silver scurf spores. Look back over your records and identify whether there were any issues in the stored crop last year, e.g. were there damp boxes in the corners? etc. If so, extra fans may be needed to help circulation around the store.

Check that all insulation is in good condition and fix any damaged areas. Otherwise these will affect how efficiently fridges run and will, in turn, cost more. Also check around doors and ridges for leaks and where air is escaping try to plug the gaps. Finally make sure that the fridge units are serviced and that all monitors and sensors are working properly before you start digging.

---

**UP-COMING EVENTS**

Don’t forget national potato day takes place on **Friday 5th of October**.

Shay Phelan  
Teagasc  
Potato Specialist  
087-7985195  
shay.phelan@teagasc.ie