

No 16 - W/C 29th August 2016

BBRO Plant Clinic weekly update:

It's been a slightly quieter period at the BBRO Plant Clinic since our last report but we have seen further samples showing early signs of root rots such as *Rhizoctonia* and *Aphanomyces* (see below). If you are beginning to see symptoms of root rotting, continue to assess the extent of any such damage as the autumn progresses as this may influence your choice of which fields to harvest first and which to select for any longer term storage.



Foliar diseases:

There appears to be relatively low progression of foliar diseases since our last report. Most crops have been protected by fungicides and these appear to be holding diseases well. Assessments of untreated plots in BBRO fungicide trials show minor levels of disease such as rust, mildew and cercospora reflecting there has been relatively low disease pressure. However, this can change rapidly and continued vigilance is required to assess the need for further fungicide applications. Remember that if favourable weather conditions prevail 1-2% infection levels can rapidly increase to 45-50% often seen by the end of September/October.

Selecting fields for harvesting:

It is worth beginning to develop your plans for which fields are going to be harvested first this campaign and which will be left for later harvests. Notwithstanding factors such as soil type and frost risk, you will need to consider:

- **Canopy yield potential** - those crops with low leaf cover and more extensive yellowing and have high levels of foliar disease, should be harvested first, allowing others to optimise their yield. In 2015/16 BBRO trials which used sequential root digs to show the potential late season yield accumulation in crops showed an increase of 36% between late September and the middle of November where the canopy remained green and vigorous. Remember that to maintain a healthy canopy further fungicide application may be required, depending on the disease risk.
- **Root rots** - any crops with root rots should also be candidates for first harvesting.

Selecting land for sugar beet next season:

Decisions are now being made ahead of next season's beet crops and the difficulties of this season provide a number of key reminders:

- **Beet Cyst Nematode (BCN)** – soil testing to identify if BCN is a problem will help you decide whether tolerant varieties should be selected in future crops. BCN is spread around and between farms by soil adhering to machinery and soil being returned to the land after harvesting and cleaning. You may want to track back to where previous Maus clamps may have been located and whether the beet came from BCN- infected fields.
- **Subsoiling** – having seen the impact of compaction in many crops this season, it is worth determining the level of compaction in more detail within fields and the need for sub soiling. This could be by simply mapping/marketing areas of fields where there have been symptoms of compaction, digging an inspection pit or using a soil compaction meter. It is important to determine the depth of any compaction to be able to set the subsoiler at the right depth. Pay particular attention to where there are differences in soil type and of course headlands where the depth, speed and the number of passes may need to be different from the rest of the field.
- **Soil pH** - pay attention to pH levels as we have seen a trend in the Plant Clinic to lower values this season. Remember that mild yield effects can be seen on mineral soils below pH 6.5. The [BBRO Reference Book](#) provides further information of target pH values for different soils types as well as soil testing and mapping and the selection and use of different liming products.

- **Organic matter** - where land slumped under the high June rainfall the indications are that in many cases, low organic matter is a contributory factor and you may want to consider a programme to improve the organic matter content. However, the starting point may be to measure and map the organic matter content of your fields in more detail in order to prioritise fields or even areas of fields for action. There is a test that you can request to have undertaken when you have the standard soil tested for pH and nutrients done. The approaches to improving organic matter content may include the application of FYM, composts, the use of green manure cover crops or more fundamental changes in crop rotation and or cultivation strategy. However, it is not possible to provide general advice as every farm will be different. BBRO are involved in new work looking at how we can improve soil health and may be able to assist you in deciding on an approach. Remember that improving organic matter content is a longer term strategy and commitment.

Irrigation:

Limiting soil moisture deficits (SMD) of sugar beet in September range from 65mm on coarse sands to 75mm on sandy loams and 150mm on clay loams. Typically, plants will be using less water through evapotranspiration (see table below) as September progresses as light and temperature levels decline.

		Daily potential ET mm/day	
	Dull days	Average	Bright, sunny days
40 - 75% leaf cover	1.0	1.5	2.0
75 - 100% leaf cover	1.2	1.8	2.4

Irrigation applications of 25mm at high deficits but will still be beneficial in September but where the leaf cover is lower, the average yield response of 2.5t/ha for every 25mm of irrigation applied may be reduced.



NORMAC Cultivations Demonstration

8th September 2016

If you want further advice or to discuss planning ahead of next season beet crop why don't you visit BBRO at NORMAC next week.

Members of the BBRO, British Sugar & LimeX teams will be on hand to discuss & demonstrate 'How to make sure every hectare counts'



Effective soil management is key to maximising the profit from every hectare of sugar beet grown:

- Knowing the soil properties of every hectare
- Maintaining good sub-soil structure
- Optimising primary cultivations for crop establishment
- Managing soils for improved harvesting efficiency

NORMAC Welcomes You!!!

The Norfolk Farm Machinery Club are delighted to stage this year's Cultivations Demonstration at Hardingham Farms, a typical Mid Norfolk Estate running to 2600 acres of soil types ranging from sand to loam, mostly grade 2 and 3. We are at NR9 4AE, between Wymondham and Dereham, and the site will be well sign-posted on the day.

Admission and car parking is all absolutely free and things will get moving from about 8.00am till about 4.00pm.

www.normac.org.uk

Caution: this information is based on results of experiments and experience but cannot constitute a recommendation.

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BASIS Points

Two BASIS points in total (not per bulletin) have been allocated for the period between 01/06/16 and 31/05/17 reference CP/52404/1517/g. To claim these points please email michele@basis-reg.co.uk



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