

BBRO Advisory Bulletin No 17 - W/C 19th September 2016

BBRO Plant Clinic weekly update - a relatively quiet period in the Plant Clinic since our last report but we have seen further samples of BCN-infected plants and an increase in samples showing early signs of root rots including *Aphanomyces*, *Rhizoctonia* and *Phoma*. The incidence of violet root rot has also been reported.

Root rots - The impact of earlier *Aphanomyces* infection on some fields along with the increasing reports of other root rots is a timely reminder to ensure that the most appropriate fields are selected for harvest at the start of the campaign. If you suspect any fields to be affected by such diseases it is worthwhile establishing the incidence and severity of symptoms in crops. This will help you to make decisions about which crops to harvest first. Target low lying areas of fields, especially where there was standing water earlier in the season to identify any particular problem areas. Also target any known areas of soil compaction as this may have impeded drainage and encouraged development of disease. Any crops with root rots should be candidates for first harvesting.

Late season leaf canopy & yield potential - those crops with poor canopy cover, more extensive yellowing and with higher levels of foliar disease will have a lower yield potential than those crops with greener and more healthy canopies. BBRO sequential root dig trials have shown potential late season yield increases of 36% between late September and the middle of November where the canopy remained green and vigorous. In a season where the weather has already impacted on crop yields, ensuring we optimise late season yield production is important. It is worthwhile therefore to assess the potential of each crop and plan the order of harvesting but being mindful of the frost risk and soil type and ability to harvest. Also, remember that to maintain a healthy canopy in crops being left for later harvests that further fungicide application may be required, depending on the disease risk.

Foliar diseases - Levels of leaf diseases remain low in most of the crop and generally fungicides appear to have controlled mildew and rust well. However, current warm days with heavy dews in the morning may encourage further development of rust and even mildew. If contemplating an additional fungicide application, please bear in mind the harvest interval of products chosen. These range between 21 and 42 days so check the label of the product used. Information on fungicides, including harvest interval, is also available in the BBRO Reference Book.

Leaf Miner - Encouragingly few reports of leaf miner damage have been received over the last two months. However, current conditions may favour third generation activity, and from past experience areas at greatest risk will be Cambridgeshire and south Lincolnshire. If you see any new damage, please let us know.

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.

Thinking ahead to harvesting - as the start of the harvest campaign draws near we will be focusing on harvesting in the next bulletin and in particular reducing harvest losses and root damage.

Whilst the magnitude of harvest losses has been reduced considerably over the years, a limited survey undertaken in last year's campaign indicated a range of average yield losses of between 3% in the best and 8% in the worst crops. However, these averages losses masked some considerable variance both between crops, within fields and between different harvesters and how harvesters were being operated. In a season where yields are looking potentially lower than average, ensuring we recover as much of the crop as possible is a high priority.

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

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