

## BBRO Advisory Bulletin No 14 - W/C 1st August 2016

### BBRO Plant Clinic weekly update

It's been a very busy time in the Plant Clinic so far this season and last week was no exception. Samples included further BCN issues, poor plant growth associated with slumped soils, earlier water-logging and soil compaction. We have also seen some samples showing early signs of root rots and the continuing trend for low soil pH in samples.

### Foliar diseases

Powdery mildew has been found in several crops across Essex, Norfolk and Suffolk, and further reports of rust continue to be received. Disease onset treatments have been applied to BBRO fungicide trials over the last seven days and we understand that growers have been taking the opportunity to treat crops for disease control and canopy protection too. If not already treated, please inspect crops and apply a broad spectrum product once at disease onset. A second spray at the end of August/early September will be required for those crops lifted from October onwards. Further information is available in the 2016 BBRO reference book or visit the BBRO website and click on 'Publications - **Reference Book** - Fungicide Strategy'.

### Pests

The BBRO aphid trapping period has now finished with over 4,888 *M. persicae* caught at the 30 sites over the last 12 weeks. This is considerably less than 2015, probably influenced by cooler wetter conditions throughout the spring and early summer, and once again there has been significant regional variation in numbers. However, there are symptoms of virus yellows now showing and we will continue to monitor this as the season progresses.

### Leaf miner

We've not seen or heard reports of any significant increases in leaf miner activity in crops over the last week, but it is important to continue to monitor the situation closely. We have the option of Biscaya available for use on crops this season and it is key that we use these at the optimum time. Remember that control with a foliar insecticide is best achieved at early egg hatch. The approval for Biscaya cover two applications. Don't rush into using these options up.

### BCN

The white females of the beet cyst nematode may be visible of the root systems on infected crops. Look at the roots of plants in areas of the crop where there are patches of backwards and yellow canopy growth. There is nothing that can be done to treat for BCN in this crop, of course, but soil testing to identify if BCN is a problem will help you decide whether tolerant varieties should be selected in future crops.



## Soil conditions

Some crops continue to struggle with the slumped or compacted soil conditions associated with the intense rain in June. Initial yellowing and reddening of leaf margins due to water logging has declined in severity as crops recover but have left these crops with small canopies and this has compromised yield potential. Application of foliar nutrients such as manganese and magnesium appear to have assisted this recovery in some cases. However, in the case of the more severely slumped soils, low organic matter is one of the key issues and this is more difficult to remedy quickly. In some areas of fields, these effects have been further compounded by areas of acidity. This is linked to the trend for the low pH being recorded in samples received in the Plant Clinic. It is important to get any of these areas soil tested and to consider liming in fields where acidity has been found. This season has clearly highlighted that the more resilient soils have higher organic matter content. If you are unsure of the organic matter levels in your soils, consider having these measured and use this as a basis for deciding on an improvement strategy.

## Weed beet and bolters

These are continuing to show in many crops. Remember that one weed beet per square meter can reduce yield by 11% and on average, 1,500 viable weed beet seeds are produced per weed beet plant. Action to remove weed beet is warranted. If the weed beet is still pre-flowering and in open flower they can be pulled easily from moist soils with the root broken off and left on top of the canopy to wither. As time goes on, it will be important to check whether flowering has finished on the older flowers. Once it has, rogued plants will need to be removed from the field. If you want further information on the growth stages of weed beet and control options, visit the BBRO website and click on 'Publications – [Reference Book](#) – Weed Beet'.

In a few fields, there is still time to get a hoe through the last drilled beet. A-hoes will be best as there is more room for leaf canopy to flow through the hoe. You may need to remove row guards.

Weed wiping is another option worth considering, however there are some key points to take into consideration.

- The best control will come from wiping the crop in opposite directions to ensure a good coverage of chemical.
- Beware of wiping crops where bolters have roots of a harvestable size, particularly if the field is scheduled to be harvested early, as there is a risk of harvesting rotten roots which could spoil the sample or even lead to load rejection. Low levels of rotten roots can be picked out over a table on loading but obviously not where a self-propelled cleaner loader is being used.
- Beware of dripping chemical – regularly adjust the wick to ensure settings are appropriate for the prevailing conditions.
- Where seed has set, there is the risk of treated seeds flicking onto healthy plants causing herbicide damage as they do so.
- Make sure that the glyphosate product being used has approval for use through a weed wiper.

Cutting is also a useful technique to reduce seed return where populations of weed beet are very high. Three cuts are usually required at approximately fortnightly intervals to get the best control.

- Irrigation - with June being one of the wettest and now July being certainly drier than average, this has created some opportunities for irrigating beet as other crops have not had to be so intensely irrigated so far this season.
- Limiting soil moisture deficits (SMD) of sugar beet in early August range from 40mm on coarse sands to 60mm on sandy loams and 110mm on clay loams.
- Typically, plants with 75-100% full canopies will use between 1.8mm per day on dull days to 4.2mm per day on bright sunny days (average = 3mm per day).
- Based on average rainfall figures for July, many crops will be currently running a deficit in excess of 60/70 mm and would benefit from irrigation if available.
- Aim to maintain the SMD at below the limiting deficit. Target an application of 25mm. This has been shown to produce an extra 2.5t/ha.
- Please be aware that the figure quoted above are all averages and if you intend to irrigate that it is recommended that the actual soil moisture content is measured or you keep a water balance sheet that can monitor specific crops. This is especially important in August when rainfall tends to be very local.



In the UK, crops have produced 145t/ha but the average is less than half of this. The potential of crops can be predicted using a sugar beet growth model which has been developed and validated in the UK. At the 2016 BBRO Open Days, the [Beet Yield Competition](#) was launched. This competition aims to show the potential of individual fields of beet and the yield gap between this yield level and the actual yield achieved. It's not about the highest yielding crop of sugar beet. It is about realising the highest potential and identifying the agronomic practice to achieve this. It's about

encouraging growers, agronomists and research workers to work together to understand how we can unlock more of the yield potential of the crop.

If you are interested in entering a crop, please visit the BBRO website and click on 'Beet Yield Competition' or contact your British Sugar Area Manager for further details. The competition will recognise those growers who achieve the highest % of their theoretical yield in each factory area. A lot of growers have already signed up, why don't you!

**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](mailto:michele@basis-reg.co.uk)

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