



BBRO Advisory Bulletin No.8 - Week Ending 21st July 2017

In general, crops look well albeit variable in some areas, especially where there were different emergence phases. Root weights are steadily progressing although increasingly dry conditions on lighter land is holding back normal growth rates. Canopies look relatively healthy but the first signs of fungal diseases are being found, so decisions on fungicides are required. Weed beet & bolters are prevalent in some crops and need controlling to minimize yield impacts as well as long term weed problems.

Aphid and other insect activity

As expected aphid numbers caught in the yellow water traps have fallen sharply over the last two weeks due to an abundance of predators and fungal diseases impacting these populations. In crops, there are individual plants or small patches of virus yellows infection now showing (along with some beet mosaic virus) reflecting earlier aphid activity. However, the seed treatments have ensured that virus levels have been kept to a minimum.

No new reports of leaf miner have been received by the BBRO, although we are now into second generation territory. Please contact us if leaf miner does become a problem on farm as we are looking for potential additional trial sites; from the first generation activity we anticipate most problems to be in the Newark factory area.

Silver Y moths continue to be caught in BBRO pheromone traps but generally in low numbers. No reports of caterpillar damage have been received.

Foliar Diseases

Foliar diseases (powdery mildew, rust and cercospora leaf spot) are now being found at low levels in crops. Apply a broad spectrum fungicide at full rate at disease onset and continue to monitor crops throughout the rest of July and August when a second treatment may be warranted, particularly if lifting from October onwards. A list of fungicide treatments can be found within the 2017 BBRO Reference Book. BBRO are involved in a resistance monitoring project and would appreciate any foliar disease samples, particularly powdery mildew, for these studies. Samples can be sent to the BBRO Plant Clinic in Norwich.



Early rust symptoms

Downy mildew

Downy mildew, especially in more susceptible varieties, is also being observed. Symptoms range from the classic purple/grey fungal 'bloom' on the heart leaves to occasional small yellow patches on older leaves; on the underside of these leaves you will often find signs of the fungus too. In addition, secondary symptoms of downy mildew can cause virus yellows like symptoms on the older leaves as the fungus affects the physiology of the plant.

Weed beet and bolters

These are continuing to show in many crops.

REMEMBER: Just one weed beet or bolter per square meter can reduce crop yields by 11% and on average, 1,500 viable seeds are produced per weed beet plant.

In moist soils, weed beet and bolters can be pulled easily with the root broken off and left on top of the canopy to wither. However, at this stage of the season it will be important to check whether flowering has finished on the older flowers. Check plants across the field to more accurately establish the stage of development.



At the stages shown above weed beet and bolters can still be pulled, have the stem broken near the root (to prevent further growth) and left on the top of the crop to die.

If plants are at the post flowering stages shown below, they will potentially have set seed and should be rogued and removed from the field to prevent mature seed being returned to the soil.



REMEMBER 'if in doubt, carry them out'

Other control methods include weed wiping and cutting however there are some key points to take into consideration.

Weed wiping:

- 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:

This can be a useful technique to reduce seed return where populations of weed beet are very high (more than 10.000/ha) but you need to ensure you cut before seed has matured. Three cuts are usually required at approximately fortnightly intervals to get the best control.

Crop nutrition

There have been several cases of suspected nutritional deficiencies. Manganese deficiency continues to be visible in a few crops, especially in crops on lighter soils and higher pH. If crops are still actively growing and producing new leaves it may be worth considering applying some manganese. Also consider application of manganese to crops as they pick up growth rates after a dry period. In this situation, crops struggle to get sufficient manganese quickly enough to the actively growing leaves.

Some pale and stunted looking canopies may be a symptom of sulphur deficiency. Low pH and light sandy soils are more likely to suffer from sulphur deficiency but low organic matter and poorly aerated soils may also suffer. Sulphur deficiency is best confirmed by plant tissue analysis as it can be confused with other symptoms and it is important to check the ratio of nitrogen to sulphur in the analysis as this tends to dictate the likelihood of any sulphur deficiency.

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

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