



BBRO Advisory Bulletin No.4 - Week Commencing 1st May 2017

Emergence

Recent rain has helped with emergence but this is very patchy in some crops, particularly those drilled into dry, cloddy seedbed conditions. The run of cold temperatures has meant that germination has been slow and some emerged seedlings have also been affected by the frost. Recovery has been slow in the dry conditions and in some crops plants are showing signs of stress. Herbicide damage has also been recorded in few crops especially where application was followed by a frost. A few crops have had to be re-drilled but generally the number of these is very low. However, some growers remain concerned about whether crops will germinate well enough across the field.

- If you are unsure and need to decide on whether to re-drill or not – check the seed in the ground to see whether it has cracked and for the development of the radicle. If there are no or few signs of growth, collect some seed from the field and put them on moist blotting paper or paper tissue in a warm room. After a couple of days, you should be able to see whether seeds are going to germinate.
- BBRO evaluate seed lots on two sites every season. This involves drilling and monitoring seed from all the key commercial seed bulks and associated treatments. To date we have not observed any emergence issues.

In most cases, some warmth and moisture will encourage crops to grow away from this slow and stressful start to the season but it is important to keep a close eye on crops in this critical period of establishment.

Bird damage

There has been some significant bird damage in several crops (see below), especially where conditions have been very dry. Skylark damage, typified by the loss of the cotyledons and sometime the first true leaves, has been reported. Grazing on more established leaves by birds such as pigeons is also apparent.

Whilst the recent rain will help recovery and reduce likelihood of further bird damage it is worth monitoring crops closely and maintaining and deploying bird scarers and gas guns where feeding damage has been found.



Leaf Miner



The first signs of leaf miner eggs have been recorded in Lincolnshire over the last 10 days (see picture). From experience in 2014 and 2015, seed treatments will protect plants from damage for up to 8-9 weeks and so these recently laid eggs should not cause concern, but please continue to monitor, particularly for actual mining later in the month, which will be an indication of the treatments starting to lose their effectiveness.

Weed control

The dry and frosty conditions have made it difficult to decide on herbicide options this season, especially regarding the use of pre-emergence herbicides which have a reduced activity in such conditions.

- However, if you haven't applied a herbicide yet, don't let weeds get away before doing so. **Don't delay too long**, even if some areas of the field are still yet to emerge.
- Hopefully we have seen the end of the frosts now and in most cases plants will have hardened up. However, if you have a relatively newly emerged crop and a frost is predicted overnight, wait until the following day before spraying but otherwise don't delay in getting herbicides on.
- Comprehensive information on herbicide options can be found in the BBRO Reference Book and on the BBRO website. Tailoring your choice of herbicide to controlling the key weed species present is key and being prepared to change rates and even products between fields may give you the best control. A summary of key post emergence options is given below (courtesy of Pam Chambers).

Active (s)	Product (examples)	Strengths
ethofumesate	Efeckt 500 SC Ethosat 500, Oblix 500	Cleavers, Knotgrass, Black bindweed
lenacil	Venzar Flowable	Brassica species, Black bindweed, Knotgrass
metamitron	Goltix Flowable Bettix Flo	Mayweeds, Knotgrass, Annual nettle, Fat-hen, Annual meadow grass
phenmedipham	Betasana SC Beetup Flo	Black bindweed, Fat-hen, Charlock, Ivy-leaved speedwell
triflusalufuron-methyl	Debut/Shiro As in Safari Lite WSB	Volunteer OSR, Brassicas, Fool's Parsley, Mayweeds, Cleavers
desmedipham phenmedipham	Beetup Compact Betanal Turbo Betanal Maxim	desmedipham is useful in cool dry conditions or/and where weeds difficult to control.
clopyralid	Vivendi 200 Dow Shield 400	Volunteer potatoes, Thistles, Mayweeds

Fertiliser

More advanced crops, especially where there has been some good rain are now approaching the 4-6 leaf stage, a few are even further forward.

- There is a temptation to delay final nitrogen applications where conditions remain dry. If crops received 30-40 kg N/ha at drilling this should ensure crops have sufficient nitrogen to establish early canopy growth.
- However, don't delay too long and ensure you have got your final fertiliser applications on before leaf cover gets too advanced. When crops reach the 6-8 leaf stage (below) there is an increased risk of prills lodging in the canopy and causing localised scorch as well as not getting the fertiliser into the soil!
- Nitrogen recommendations are given below for mineral soils. Further details can be found in the BBRO Reference Book and on the BBRO website.
- Trials in 2016 were part of an on-going series of work to validate these recommendations. No evidence was found for routine use of higher nitrogen rates and reinforced the need to match nitrogen rate to the SNS Index as well as the value of undertaking a SMN test to assess levels in the soil, especially where organic manures and amendments and cover crops have been used.

Soil Index	0	1	2	3
Mineral soils Kg N/ha	120	120	100	80

- It is likely that with some moisture and warmth in the ground plants will grow very quickly. Rapidly growing crops may benefit from manganese, especially on lighter soils but also in poor cloddy seed bed where plants may be struggling for root development. Applying manganese to the foliage (0.5-1.0 kg/ha) regularly, repeating at 10-14 days, should assist with rapid leaf expansion and growth. Don't wait until you see symptoms, such as those below, as growth will have already have been compromised.



- Crops may also benefit from some foliar magnesium, again especially on light land and where there is a history of low Mg levels and deficiencies in other crops.
 - We tend not to see a lot of other nutrient deficient -related problems such as sulphur and boron at this stage of the season but if you are unsure you can submit a sample to the BBRO Plant Clinic for assessment.
- There is no doubt that with the slow start to the season and associated plant stresses that a range of other foliar biostimulant and fertiliser products will be promoted to help crops overcome this and to aide growth. It is difficult to make general comments as products vary considerably in their analysis and BBRO has not carried out extensive testing of these products and has preferred to focus on other areas of agronomy associated with crop establishment as a priority.
 - BBRO is undertaking some limited trials on foliar feeds this season and these will be discussed at the BBRO Open Days in June and July as well as being demonstrated on the BBRO Demonstration Farm network. If you do use one of these products and keen to assess its effect, remember to keep an untreated area in the field for comparison. Ideally, some untreated strips across the field will allow you to form a more consistent view.

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

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