



IN BRIEF

- Recent dry weather has allowed many growers to complete drilling, or at least be close to finishing.
- Keep a close eye on crops for emergence which is proving to be variable in some crops.
- The drawn-out drilling season has resulted in crops being at a range of different stages of development and need careful tracking to ensure operations and applications are made at the right time.
- Difficult decisions on herbicides and the need to reduce the risk of herbicide damage.



ADVISORY

Check fields for emergence

Emergence is uneven in some recently drilled fields following changeable weather and should be checked regularly to identify any issues and to allow timely decisions to be made. Expect emergence to be 7-10 days after drilling. Soil capping has been seen in some crops and a few crops have been re-drilled. Check in areas of different soil types to get an accurate assessment of the field as a whole.



Weed control

Capped soil and non-emergence

One of the current concerns is weed control in situations where crop emergence is variable: should herbicides be applied or not? Some examples of supported herbicide treatments that will provide **wide spectrum** weed control that can be applied from the crop emergence stage are provided below, but it is by no means an exhaustive list! Further examples are given in the BBRO 2018 Weed, Pest and Diseases booklet, 'Post-emergence broad-leaved weed control chart' (www.bbro.co.uk/publications).

- Betanal maxxPro 1.25 l/ha
- Betanal maxxPro 1.0 l/ha + Goltix 70 SC/Bettix Flo SC 0.75 to 1.0 l/ha
- Betasana Trio 1.5 to 2.0 l/ha
- Betasana Trio 1.25 l/ha + Goltix 70SC/Bettix Flo SC 0.75 to 1.0 l/ha

Product	Active (s)	g/litre of active
Betanal maxxPro	ethofumesate,	75
	phenmedipham,	60
	desmedipham	47
	lenacil	27
Betasana Trio	ethofumesate,	115
	phenmedipham,	75
	desmedipham	15
Goltix 70 SC/Bettix Flo SC	metamitron	700

Deciding if it is necessary to apply an early herbicide will be dictated mainly by the size and species of weed present. Amongst the key weeds to control early (before first true leaves start to emerge) are Knotgrass, Redshank and Pale persicaria; where these weeds have emerged then herbicide programmes should commence. Other weeds such as volunteer oilseed rape, black-bindweed and fat-hen can all be controlled if true leaves are present, ideally though weeds should be at the cotyledon stage.

If using 'straight' lenacil containing products this season, then take care to check the label for new restrictions, Venzar 500SC (MAPP 17743) **cannot be applied before BBCH10 (cotyledons horizontally unfolded)**. It now has a maximum rate of 0.4 l/ha and a maximum of 1.0 l/ha of product per year but can only be applied once in 3 years. Venzar Flowable (MAPP 06907) can still be used up until 28.02.19, this has a less restrictive label and can support a number of mixes at the crop emergence stage – but it can be 'hot'.

Reduce the risk of herbicide damage and setting crops back in what is already a late season:

Watch temperatures where applying adjuvant oil:

Check crops closely for crop growth stages and ensure these are within safe windows for herbicides. Let your agronomist know where there are different varieties. If there are different varieties in a field check for different growth stages.

Table 1. vary dose of adjuvant oil according to temperature	
Max. temp (°C) on day of spraying	Dose of adjuvant oil* (l/ha)
Up to 14	1.0
14 to 18	0.75
18 to 21	0.50
Above 21	Not recommended
* Check adjuvant label regarding rates, not all will support rates as high as 1.0 l/ha in 80-100 l/ha of water.	

Crop tolerance - Follow label recommendations for different products with regard to the effect on crop growth. Many carry warnings about the risk of both transient and longer lasting effects. For example, avoid applying to crops under stress such as drought or high temperatures (where possible apply at cooler times of the day); where is a substantial difference between day and night temperatures, wind damage, intense sunlight and manganese deficiency.

When beet is growing rapidly they can become short of manganese (see Crop Nutrition section) and be sensitive to herbicide treatments. Whilst on many soils the manganese deficiency is transient, the consequential herbicide damage can cause crop growth to slow.

Some products such as Betanal maxxPro advise that to avoid this crop check, manganese should ideally be applied to the crop first. Clearly, this may not be practical in all situations but consider including manganese in with the herbicide spray. Although most herbicide mixes are compatible with chelated manganese products, check labels before mixing up and treating.

Crop Nutrition

Don't delay with getting nitrogen onto crops. Crops are likely to develop canopies rapidly and will need adequate nutrients. Sufficient nitrogen is essential for early leaf growth. If using liquid nitrogen ensure this is applied pre-emergence to avoid the risk of damage, especially under hot sunny conditions.

The rapid early leaf growth of some crops can result in deficiency in nutrients. This is more frequent on light soils, especially in dry conditions and in poorly consolidated cloddy seedbeds. Symptoms can be seen as early as the 2-4 leaf stage. Manganese deficiency tends to be more common at this early stage and the symptoms are initially, just a pale colouration to the young leaves. The more typical yellow speckling (see photo) tends to develop later.



Symptoms can be transient and may disappear after rain or when growth slows. However, it is worthwhile applying manganese to crops growing rapidly on lighter soils or in rapidly drying conditions to help canopy establishment.

Most recommended rates will give between 0.5-1 kg of manganese per hectare which is sufficient. Follow up applications may be needed in high risk soils and/or where symptoms continue to show.



EVENTS

Beet Yield Competition.

Applications are now invited for the 2018 BYC competition. For further info please visit our website <https://bbro.co.uk/on-farm/beet-yield-competition/>

The finalists of the BYC 2017-18 will be announced at Cereals on the 13th June, 10:30 – 11:30 on the NFU stand.

Summer Open Days.

Plans are proceeding for the BBRO Summer Open Days, with lots of opportunities to see our trials in progress, speak directly to the research team and view the RL varieties for 2019.

Invites will be released in May.



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