

BBRO Advisory Bulletin No 1 - W/C 7th March 2016

Drilling

Drilling could soon be underway on some of the kinder soils, although current weather is for cooler, damper conditions to persist for the next few days. The extremely mild winter and lack of significant frost hasn't helped with seedbed weathering but soils have wetted and dried on a number of occasions and so the hope is that, in many cases, they will pull down reasonably well.

The importance of a level seedbed cannot be stressed enough. While the aim is to use as few cultivations as possible to create a tilth, if another pass will help level the seedbed without drying it excessively then this can pay dividends when it comes to harvesting the crop. Harvesters are designed to work best lifting beet in straight lines and from level seedbeds.

A uniform plant population is also crucial and the objective should be to establish 100,000 plants on every hectare sown. Speed of emergence is driven by soil moisture and temperature and is clearly influenced by drilling depth. Seed will germinate at 3°C and will do so more vigorously at and above 5°C.

Paying particular attention to plant populations will pay dividends through to harvest time. Typical field establishment is somewhere around 80%, which suggests a drilling rate of 1.25 units per hectare to establish 100,000 plants. Closing seed spacing slightly on headlands and other areas of 'knotty' or less than ideal seedbeds can be a useful tactic to ensure a good final establishment.

Drill coulters are a critical control point in any drilling system. Make sure yours are sharp and all set at a uniform depth across the drill.

Given adequate soil temperature, good seedbed conditions and a settled forecast then it is important to make a start with drilling as ensuring sowing is completed as soon as practically possible will lead to earlier canopy closure and subsequent yield benefits.

On farm hygiene

It is crucial, particularly after the very mild winter period, to destroy all beet and crown material on cleaner load spoil heaps and manure loading sites. This should be done as a matter of urgency and before any new-season beet emerge to reduce the risk from all pests and diseases but particularly virus yellows and downy mildew. Whilst most growers are using a neonicotinoid seed treatment to protect against virus-carrying aphids, the more we can do to reduce the infection levels the better it is for the long-term stewardship of these treatments. Downy mildew has become an increasing feature over the past few seasons and whilst downy

mildew infection is often sporadic within fields, the disease can damage the crown making it easier for fusarium and other rots to infect the plant. It only takes a few such rotting beet to cause high overall losses during beet storage.

Virus Yellows

The mean air temperatures from the reference weather stations for January and February range from 4.9-5.3°C and so the potential risk from Virus Yellows infection is high. However, the use of insecticide treated seed (see table) should keep this risk to a minimum and protect the crop from significant yield loss. The BBRO will keep you updated on the 2016 aphid migration once the yellow water traps are deployed at the 30 reference sites during the spring.

Factory area	Option	Virus Yellows (%) on sowing dates of:			Usage of insecticide treated seeds	Mean temperature
		15 March	30 March	15 April		
Bury	Without pest management	23.9	32.1	45.6	-	4.99°C
	With insecticide treated seed	0.9	1.1	1.2	99.6%	
Cantley	Without pest management	30.2	39.8	75.3	-	5.33°C
	With insecticide treated seed	1.1	1.3	1.5	99.3%	
Newark	Without pest management	23.9	32.1	45.6	-	4.99°C
	With insecticide treated seed	0.9	1.1	1.3	98.5%	
Wissington	Without pest management	36.4	48.9	66.6	-	5.03°C
	With insecticide treated seed	0.9	1.0	1.2	98.6%	

BBRO Technical meetings

Thank you to everybody who attended this year's series of winter technical meetings which, from the feedback we have had, were very well received by those who attended. Papers from the session are available on-line at www.uksugarbeet.co.uk for those people who were unable to attend and would like to catch up.

Our attention is now turning towards the summer open days at our demonstration sites and we'll keep you posted of the plans for these events as the season progresses.

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

BASIS Points

Two BASIS points in total (not per bulletin) have been allocated for the period between 01/06/15 and 31/05/16 reference CP/43823/1516/g. To claim these points please email michele@basis-reg.co.uk



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