CEREAL CAMO-CROPPING

2022 GROWER GUIDE

The use of Cereal cover crops in 2020 appeared to show major reductions in virus yellows incidence in sugar beet. However, the data we obtained was from a relatively small sample size.

The theory is that the cereal crop helps to obscure the sugar beet. This reduces the soil-plant contrast which aphids use to locate sugar beet. We want your help to explore this as a future mitigation strategy against virus yellows.

Field treated with alternating barley strips and bare controls in the spring [Imaged December 2020]

Your mission is to establish some experimental strips in your fields. Together we will build a robust dataset across the national crop and understand how useful it might be in the future.

BBRO will help you assess if it has been worth it yourself and follow up with detailed studies in a subset of fields with satellite and drone assessments.

If you're keen to be involved, follow this simple guide to establish your trial(s), then send us some field information and we'll do the rest.

Once complete send the information back to us via email: plantclinic@bbro.co.uk or post it to Camo-cropping, BBRO, Centrum, Norwich Research Park, NR4 7UG. If you are trying multiple fields, please use a separate data sheet for each.

British Beet BBRO Research Organisation

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Instructions:

1. Identify fields which you would like to camo-crop. They will need to be big enough to fit multiple strips of cereal and bare controls.

   Aim for a field that is at least six strips wide, three cereal, three controls, without including headlands or narrow tramlines. Each strip should be a minimum of 12m wide

2. Sow your cereal camo-crop in alternating strips with bare controls. Sow these in the same direction and alignment as the sugar beet. (Suggested seed rate: 50 to 70 kg/ha).

   Pass the tractor and drill over the bare strips but switch off the metering unit so no cereal is planted. This will ensure the field is evenly disturbed in both areas. N.B. If using to stop wind-blow this should be the priority for the sowing time of the cereal.

3. Cultivate and sow your sugar beet. Variety, seed rate and seed treatment should be consistent across the field. Crops grown without Cruiser SB are likely to benefit the most from camo-cropping.

4. Mark out each cereal strip once it germinates. BBRO have a limited supply of markers if you need. You could also record the strips using GPS as well.

5. Desiccate the strips before the cereals become significant competition to the sugar beet. For consistency, apply the herbicide across the entire field (including bare strips). Ask your agronomist for advice if in doubt. Please score the canopy cover in the cereal strips and bare controls at this time.

6. BBRO will use drones, satellites, and grower assessments in September to assess the impact of these strips on virus levels

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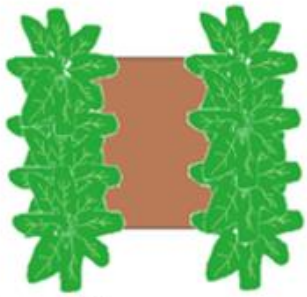
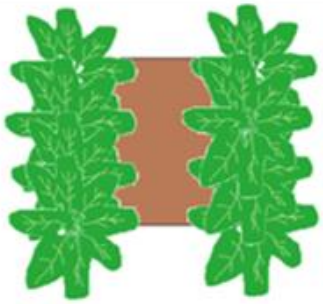
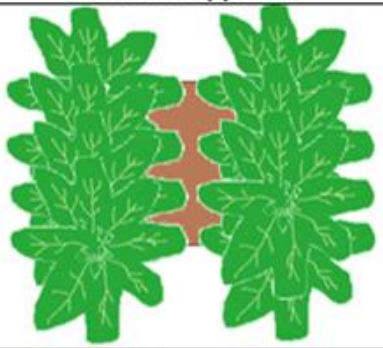
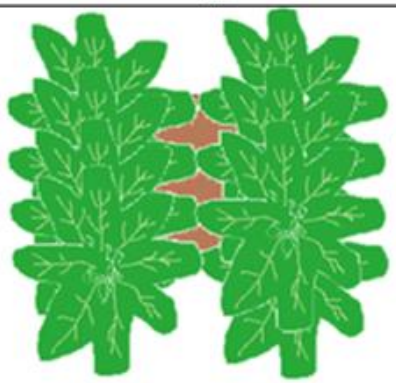
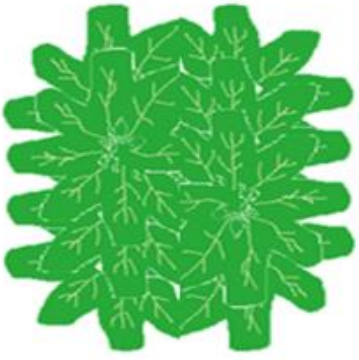
Canopy cover scoring guide

30% canopy cover	40% canopy cover
	
50% canopy cover	**60% canopy cover**
	
70% canopy cover	**80% canopy cover**
	
90% canopy cover	**100% canopy cover**
	

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Site Record Sheet

Field Data

Grower Name: ……

Business Name: ……

Grower Contact phone number: ……

British Sugar Contract number: ……

Email address ……

Field Name: ……

Field Location: (GPS coordinates/What3words/OS Grid ref/IACS number): ……

……

Sugar Beet Info

Variety: ……

Seed Rate: ……

Row Spacing: ……

Seed Treatment & pellet type: ……

……

Drilling Date: ……

Fertiliser rate: ……

Previous Crop: ……

Cereal Info

Species: ……

Drilling Date: ……

Seed Rate: ……

Desiccation Date: ……

Strips width: ……m

Sugar beet canopy cover at desiccation: ……% Cereal strips ……% Bare control strips

BBRO use only: Date Received ……/……/…… Field number …….