



Variety Selection

Introduction

Making sure you select the right variety for a given field or block of land is an important tactical decision and will have an impact on your final yield. Whilst root yield, sugar content and bolting are key characteristics, other pest and disease traits can be just as important as part of any integrated pest management strategy.

When selecting which variety to grow there is an increasing range of genetic traits to consider as well as different seed treatments. This information can be found in the Recommended List (RL) of sugar beet varieties on the BBRO website.

Variety traits

The key observations from the RL are as follows:

Yield

The last three years' data are used when forming the RL and these are shown in the three-year datasets in the supplementary table. In most cases there are relatively small differences in yield performance between years but as consistency of performance is an important factor when selecting varieties, these datasets allow the user to look at variation of performance across years.

Bolting

Early sown bolting (ESB) trials are sown separately to the main RL trials and are drilled sequentially from the middle of February to 5th March. The ESB figures are the number of bolters recorded from these earlier sowings for the last three years and should be used as a guide to compare varieties by growers sowing early and/or where high vernalisation (periods of cold) is expected.

Vernalisation data is provided in the supplementary table of the RL data on the BBRO website.

BCN

Beet cyst nematode (BCN) tolerant varieties are listed for use under BCN infested conditions but have yields suitable for use in non-infested fields. Refer to the [BCN Fact File](#) for more information.

Foliar disease

The current foliar disease data do not indicate tolerance or resistance but simply leaf infection. The data in the RL table are ratings (1-9) for powdery mildew, rust and Cercospora.

RL testing includes untreated and fungicide-treated trials to show varietal performance in the presence of disease. As disease incidence varies between years, the three-year data table provides a more robust overview of disease susceptibility. Some disease scores will be in brackets where data are limited. The data in the RL table are ratings whilst those in the supplementary table are recorded percentage leaf infection. Refer to the foliar disease fact files for more information.

Cercospora tolerance

Cercospora tolerance is a relatively new trait to the RL and based on a breeder's trait claim.

Virus yellows tolerance

Tolerance to any of the three yellowing viruses is not assessed in the RL trials; the decision on whether to list a such a variety is based on breeders claims which are confirmed by the Crop Committee's Expert Panel. BBRO does undertake trials with the breeders separately from the RL. Please speak to the breeder for further information.

ALS herbicide tolerance

These varieties are part of the CONVISO® Smart system. In RL trials these varieties are treated with conventional herbicides. More details of use of these varieties, including performance when treated with ALS herbicides, are available from the breeders.

AYPR strain of rhizomania

Since 2007, more aggressive strains of rhizomania (e.g. AYPR) have been identified at several sites which continue to be monitored. Breeders have developed varieties with enhanced resistance genes to these strains. Yields of the AYPR varieties are determined in non-infested RL trial sites.

Impurities

Impurities of beet from each yield plot are measured in the tarehouse at Wissington factory at the same time as sugar content. The measurements use the current industry standards used for the commercial crop. These data are available from the BBRO for information but at present there is no significant difference in impurities between the RL varieties.

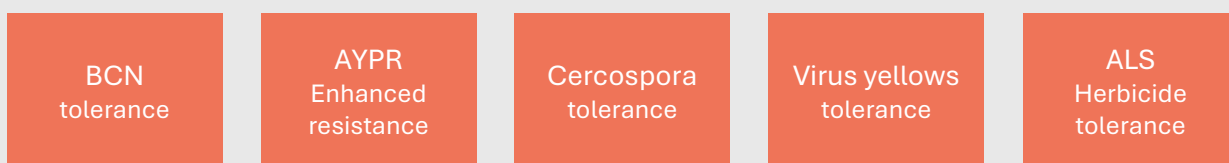
Keys steps to selecting a variety

Step 1: Learn about variety performance this season

Know where your different varieties are drilled
Check how each variety performs. What were the differences on YOUR farm?



Step 2: Do you want to select for a specialist trait or multiple traits?



Step 3: Select for drilling date



Step 4: Other considerations

