

Variety selection tool

Helping you compare the performance of varieties



User Guide

May 2016

About

The *Variety selection tool* can be used to navigate variety trials data and make comparisons – based on location-specific information – to help you identify the most promising varieties for your unique situation.

At present, the current version is based on winter wheat variety trials data. Further crop ‘dashboards’ will be added later in 2016

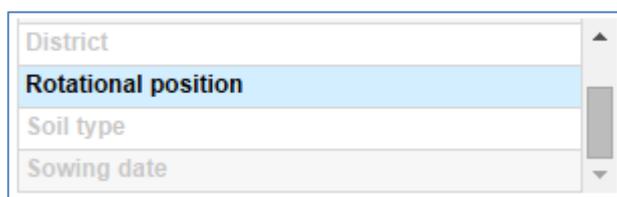
The tool can be found at cereals.ahdb.org.uk/monitoring

Running an analysis

On the left-hand side, you will see three data selection boxes:

Box 1 – Select analysis

Select one option in this box



A screenshot of a web interface showing a dropdown menu. The menu is open, displaying four options: 'District', 'Rotational position', 'Soil type', and 'Sowing date'. 'Rotational position' is currently selected and highlighted in blue. A vertical scroll bar is visible on the right side of the menu, indicating that there are more options available than are currently visible.

Variety data can be analysed in a number of ways to show you information relevant to your farm.

Select either a location ('UK', 'Region', or 'District'), or agronomic factor ('Rotational position', 'Soil type', or 'Sowing date').

Top Tip

Always use the scroll bar on the right (when visible) to see all options available for analysis.

Box 2 – Select...

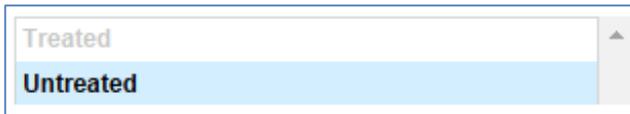
Select one option in this box



A screenshot of a web interface showing a dropdown menu. The menu is open, displaying two options: '1st Cereal' and '2nd Cereal'. '1st Cereal' is currently selected and highlighted in blue.

Once you have chosen your preferred analysis in Box 1, options to refine this analysis further will appear in Box 2. The options shown are specific to the chosen analysis (eg if 'Rotational position' is chosen in Box 1, the options in the example above appear).

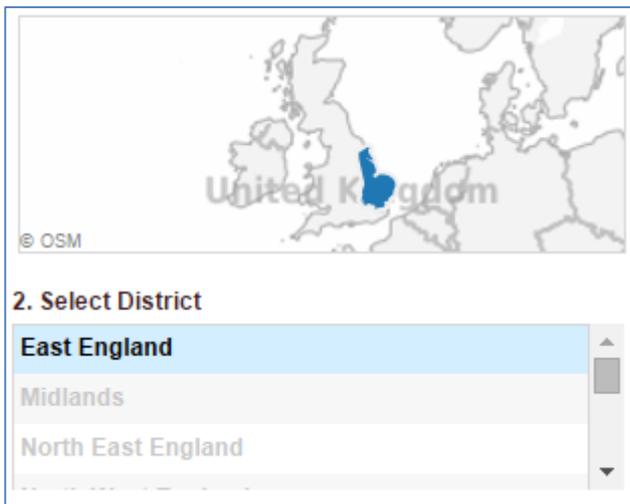
If you have selected a 'UK' analysis in Box 1, you will also have the option to view either treated or untreated variety trial data.



A dropdown menu with a light blue background. The text 'Treated' is at the top, and 'Untreated' is selected and highlighted in a darker blue. A small upward-pointing arrow is on the right side.

Top Tip

If you are analysing the data by 'Region' or 'District' and are unsure which area of the UK you are in, hover your cursor over the list in Box 2 and a map will appear displaying the relevant areas.



The image shows a map of the United Kingdom with a blue dot indicating a location in the East of England. Below the map is a dropdown menu titled '2. Select District'. The menu is open, showing three options: 'East England' (highlighted in blue), 'Midlands', and 'North East England'. A small upward-pointing arrow is on the right side of the dropdown.

Box 3 – Select varieties

Select at least one option in this box



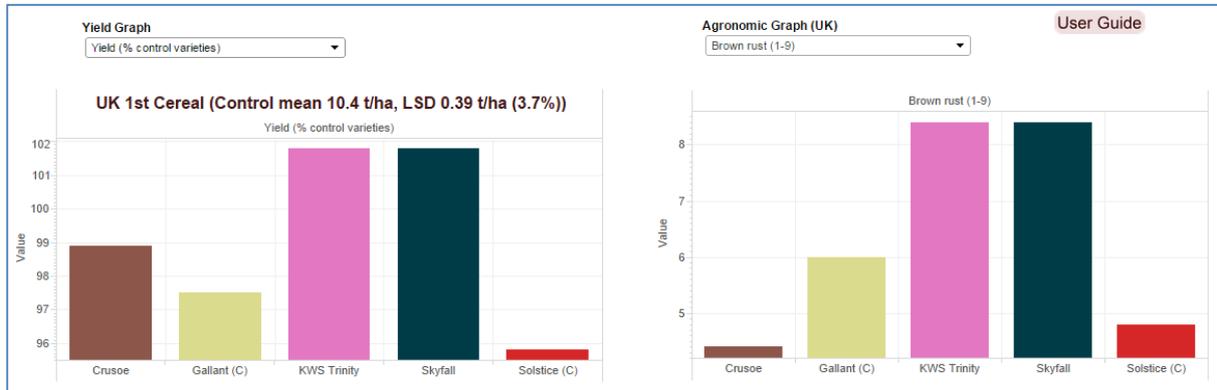
A dropdown menu for selecting varieties. It is divided into two sections: 'nabim group 1' and 'nabim group 2'. The 'nabim group 1' section is highlighted in blue and contains the following varieties: Crusoe, Gallant (C), KWS Trinity, Skyfall, and Solstice (C). The 'nabim group 2' section is white and contains: Cordiale, Cubanita, KWS Cashel, and KWS Lili. A small upward-pointing arrow is on the right side.

Box 3 can be used to select the varieties you wish to analyse.

Select a single variety, multiple varieties (by holding 'Ctrl' and making your selections) or an entire group.

Viewing and comparing results

Graphs



Information entered in the three data selection boxes will now be analysed and the data displayed in two bar graphs:

1. Yield graph (left) – Use the drop-down boxes to show variety yield data (mean yield or as a percentage of the control varieties) or the number of trials used to generate the result.
2. Agronomic graph (right) – Use the drop-down boxes to show agronomic data for the selected varieties. These results are based on the full set of trial data (ie the values are for the UK).

Note: Disease and lodging ratings are presented on a 1-9 scale, where a high number indicates high resistance. Orange wheat blossom midge ratings are presented as 0 or 1, where a rating of 1 = believed to be resistant and 0 = no data is available for this trait.

Top Tip

Hover your cursor over the bars in the graph to get more variety information



Tables

Information entered in the three data selection boxes can also be analysed and the data displayed in two data tables. These operate in the same way as the graphs and are particularly useful for viewing large amounts of data.

Note: Any values in the table which are in red are calculated from limited data and should be treated with caution.

Top Tip

The titles of the yield graph and data tables contain useful information:

- **'Control mean' – This is the mean of the control varieties (these varieties are displayed as '(C)')**
- **'LSD' – This is the Least Significant Difference (LSD) which indicates the significance of yield values when comparing two varieties. Varieties that are more than one LSD apart are significantly different (at the 5% confidence level).**

Frequently asked questions

Q: How have the districts been defined?

A: The districts are based on the UK regional climates, as defined by the [Met Office](#), which can be used to describe the general climate in that area. Due to the variability of UK climate, districts are defined based on long-term weather trends.

Q: Which location should I select?

A: By limiting the analysis to variety trial data generated nearer your farm, the results could be more regionally relevant. However, when trials are excluded (ie by selecting a specific region) results should be treated more cautiously. Divisions between areas are not absolute and growers are advised to consider carefully which region is most appropriate for their conditions.

Q: How have the soil types been defined?

A: Within the AHDB Recommended Lists trial protocols, all soils are classified as either 'light', 'medium' or 'heavy'. Complete information on soil type definitions can be found in our [Cereals trial protocol](#).

Q: I can't read the title on the graph

A: The graph title contains a lot of valuable information and it can sometimes be cut off. Just hover your cursor over the title and the full text will display.

Q: I can't read the variety names on the graph

A: If you are displaying a large number of varieties on the graph, those with longer names can sometimes get cut off. Just hover your cursor over the relevant bar on the chart and you will be able to see the variety name (along with some other useful information too).

Q: How do I know what the values of the bars are on the graph?

A: If you are struggling to read the values from the graph axis, you can also view the data on the tables at the bottom of the page. Simply select the required characteristic in the 'Yield Table' or 'Agronomic Table' drop-down menu to display the information.

Q: The variety I have selected has an orange wheat blossom midge rating of 1. What does this mean?

A: In this tool, a rating of 1 = believed to be resistant, and 0 = no data is available for this trait

Q: What season is this data calculated from?

A: The data presented is calculated from 5 years' worth of AHDB trial data (harvest 2011–2015).

Q: I want to know the quality of the varieties I have selected, how can I do this?

A: At the moment, the tool is limited to yield data, agronomic features and disease resistance information.

Glossary

Disease resistance ratings

Ratings are on a 1–9 scale, where a high number indicates high resistance to the disease. Scores for disease resistance are based on natural infection and inoculated trials. Information is only used where relatively high levels of disease are present to prevent low disease pressure being mistaken for resistance. Varieties with ratings of 4 or less can be interpreted as susceptible. Varieties with ratings of 8 or 9 can be said to have high resistance; however, the ratings cannot determine the durability of the resistance. If a variety relies on a single major resistance gene, a breakdown in resistance can see a variety with a score of 9 become very susceptible. Disease resistance ratings can be read alongside the untreated yield, which provides an indication of the potential yield reduction as a consequence of disease.

Lodging

Lodging scores are calculated for varieties grown with and without plant growth regulator (PGR) application. The varieties receive full fungicide treatment. Ratings are on a 1–9 scale, where a high number indicates high resistance to lodging.

LSD (Least Significant Difference)

Varieties that are more than one LSD apart are significantly different at the 5% confidence level.

Region/District yields

These yields are based on fewer trials and should be treated more cautiously. Divisions between areas are not absolute and growers are advised to consider which region is most appropriate for their conditions.

Ripening

Ripening is expressed as days earlier or later than a standard variety. Varieties with a negative number are earlier to mature than the standard variety. The numbers given have been collated from RL trials but it has been noted that differences can be greater on farm, particularly where growing conditions are more marginal.

Scope

This is the scope of recommendation given to the variety in the current AHDB Recommended List. It may refer to a UK, regional or specific recommendation.

Yields

Yields are calculated as a percentage of the control. A range of established varieties are selected as controls and the average UK yield of these varieties is set to 100%. For example, if the average yield of the control varieties is 10.2 t/ha, a variety that yields 10.4 t/ha will be shown as 102.