

RL for cereals and oilseeds gets a **DIGITAL BOOST**

Find out about the digital revolution across the Recommended Lists (RL), led by Paul Gosling



The AHDB Recommended Lists for cereals and oilseeds (RL) is no stranger to the digital world, with data released online first. Now the RL has capitalised on technological advances to deliver powerful new ways to access and interpret the variety data.

We identified the need for new digital solutions during our review of the RL (see spring 2019 edition of *Grain Outlook*). The recent revolution started with the launch of the variety selection tool during the winter and the app (see advert on page 8) during the summer.

Variety selection tool

It is easy to view the RL like a pack of Top Trumps. Each variety 'card' contains a list of data fields with an associated value. However, the RL is not as simple as this classic card game, because the relative importance of each of these fields depends on you and your farm. For example, if you want to reduce fungicide inputs, you will care more about disease ratings.

This is where the variety selection tool comes in, as it lets you focus on what matters to you (e.g. septoria tritici resistance) far more easily than the static RL tables.

In essence, the tool is an interactive digital version of the RL. The opening view includes all varieties and their default values, with two ways to whittle down the number of varieties: varietal filters and agronomic merit.

Varietal filters

The filters are a simple way to exclude varieties that do not meet your criteria. They allow you to specify market requirements, account for key diseases and reflect preferred agronomic features. Many filters allow you to specify a preferred and precise range (e.g. varieties with a septoria tritici disease rating between 5.9 and 8.1).

Agronomic merit

Once filtered, the remaining varieties can be scrutinised further, via the use of agronomic merit. A relatively new concept to the RL, the agronomic merit score takes account of a variety's resistance to lodging and key diseases (instead of looking at each component in isolation). Once again, the approach can accommodate the relative importance of these features to you, via the use of weightings – see table opposite.

For each variety, a score for each component is calculated (rating x weighting). Scores are then added together to give an agronomic merit score. A chart displays the most promising varieties for your situation. The default view shows five-year UK untreated (no fungicide) yields (t/ha) on the y-axis and agronomic merit on the x-axis. Varieties with the highest



| Component | Resistance rating* | Importance | Weighting** | Score (rating x weighting) |
|------------------------|--------------------|------------|-------------|-------------------------------|
| Septoria tritici | 6 | Very high | 10 | 60 |
| Yellow rust | 6 | High | 7 | 42 |
| Brown rust | 8 | Low | 1 | 8 |
| Mildew | 5 | High | 7 | 35 |
| Fusarium ear blight | 7 | Low | 1 | 7 |
| Lodging (+PGR) | 8 | Very high | 10 | 80 |
| Lodging (-PGR) | 7 | Medium | 4 | 28 |
| Agronomic merit | | | | 260 |

*RL resistance ratings use a simple scale: from 1 (least resistant) to 9 (most resistant).

**Ratings and weightings shown for illustrative purposes.

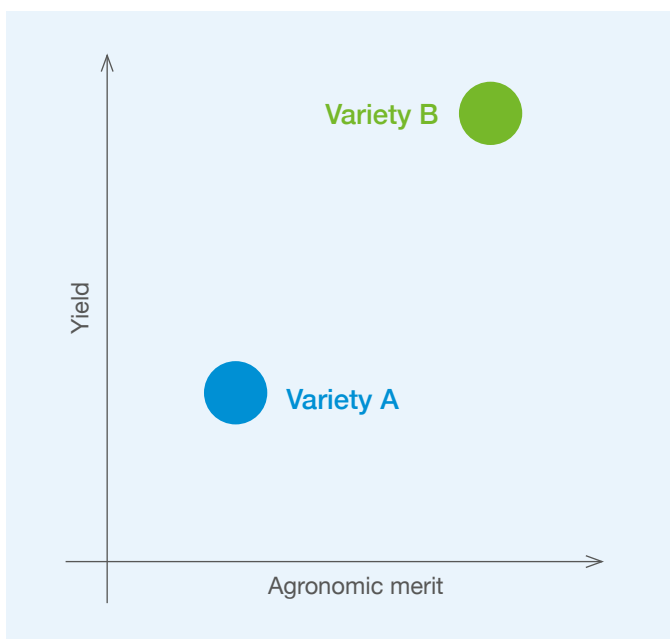
agronomic merit and yield feature in the top-right corner. The tool also shows the LSD value, which can reveal significantly different varieties – those that are more than one LSD apart are significantly different (at the 5% confidence level).

A right-click on any circle unveils additional variety-specific information. Of particular note is the yield-consistency chart. This shows a variety's performance relative to the treated control varieties (set at 100%). Where a variety's performance clusters (by region and year), it indicates its yield is relatively stable.

A user guide and video, on the AHDB website, outline the full potential of the tool. However, a particularly interesting way to cut the data further is with the treatment benefit (TB) view (UK-only data). This provides a good sense of how responsive (yield) a variety is to fungicides. Typically, varieties with higher agronomic merit ratings are less sensitive to fungicide treatment benefits.

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This simplified chart illustrates the relationship between agronomic merit and yield for two hypothetical varieties

Recommended Lists app

A new powerful and pint-sized way to deliver variety data to your fingertips...



- Features recommended and described varieties
- Free to download (iOS and Android devices)
- Works offline
- Clearly designed menus and tables
- Powerful in-built search function
- 'Favourites' function
- 'Notes' function
- Latest information

ahdb.org.uk/rl

Available on Google Play and App Store

