### AHDB Recommended List

Winter wheat varieties grown in RL trials in 2019 but not added to the AHDB Recommended List

<table>
<thead>
<tr>
<th></th>
<th>Control varieties</th>
<th>Other varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Signal</td>
<td>KWS Siskin</td>
</tr>
<tr>
<td>Fungicide-treated grain yield (% treated control)</td>
<td>97</td>
<td>101</td>
</tr>
<tr>
<td>East region (11.1 t/ha)</td>
<td>97</td>
<td>101</td>
</tr>
<tr>
<td>West region (11.2 t/ha)</td>
<td>97</td>
<td>101</td>
</tr>
<tr>
<td>North region (11.3 t/ha)</td>
<td>96</td>
<td>98</td>
</tr>
<tr>
<td>untreated grain yield (% treated control)</td>
<td>78</td>
<td>83</td>
</tr>
</tbody>
</table>

### Grain quality

<table>
<thead>
<tr>
<th>Endosperm texture</th>
<th>Hard</th>
<th>Hard</th>
<th>Hard</th>
<th>Soft</th>
<th>Soft</th>
<th>Hard</th>
<th>Hard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein content (%)</td>
<td>12.4</td>
<td>11.9</td>
<td>11.5</td>
<td>11.3</td>
<td>11.6</td>
<td>11.2</td>
<td>11.3</td>
</tr>
<tr>
<td>Protein content (% - Milling spec)</td>
<td>13.3</td>
<td>12.6</td>
<td>12.3</td>
<td>12.0</td>
<td>12.3</td>
<td>11.9</td>
<td>11.9</td>
</tr>
<tr>
<td>Hagberg Falling Number</td>
<td>278</td>
<td>286</td>
<td>185</td>
<td>224</td>
<td>206</td>
<td>271</td>
<td>259</td>
</tr>
<tr>
<td>Specific weight (kg/l)</td>
<td>78.3</td>
<td>77.2</td>
<td>75.5</td>
<td>77.1</td>
<td>77.4</td>
<td>75.7</td>
<td>76.3</td>
</tr>
<tr>
<td>Chopin alveograph W</td>
<td>-</td>
<td>164</td>
<td>-</td>
<td>96</td>
<td>94</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Chopin alveograph P/L</td>
<td>0.5</td>
<td>-</td>
<td>0.4</td>
<td>0.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### Agronomic features

| Resistance to lodging without PGR (1–9) | 8 | 6 | 7 | 7 | 7 | 7 | 8 | 0.6 |
| Resistance to lodging with PGR (1–9) | 8 | 7 | 8 | 8 | 8 | 8 | 8 | 0.5 |
| Height without PGR (cm) | 83 | 84 | 86 | 83 | 82 | 83 | 79 | 1.7 |
| Ripening (days +/- Skyfall, +ve = earlier) | 0 | 0 | +1 | +1 | +1 | +2 | +1 | 0.6 |
| Resistance to sprouting (1–9) | 5 | 5 | 6 | 6 | [6] | [7] | [6] | 0.8 |
| Disease resistance |

#### Septoria nodorum (1–9)

- Signal: 5 (equal to untreated control)  
- KWS Siskin: 6 (equal to untreated control)  
- KWS Santiago: 6 (equal to untreated control)  
- KWS Barrel: 6 (equal to untreated control)  
- Elation: 6 (equal to untreated control)  
- RGT Lantern: 6 (equal to untreated control)  
- KWS Parkin: 6 (equal to untreated control)  
- Average LSD (5%): 0.9

#### Septoria tritici (1–9)

- Signal: 5.8  
- KWS Siskin: 6.6  
- KWS Santiago: 4.4  
- KWS Barrel: 4.3  
- Elation: 4.3  
- RGT Lantern: 5.7  
- KWS Parkin: 5.5  
- Average LSD (5%): 0.8

#### Eyespot (1–9)

- Signal: 6 (equal to untreated control)  
- KWS Siskin: 5  
- KWS Santiago: 4  
- KWS Barrel: 5  
- Elation: 4  
- RGT Lantern: 6  
- KWS Parkin: 6 (equal to untreated control)  
- Average LSD (5%): 1.7

#### Fusarium ear blight (1–9)

- Signal: 7  
- KWS Siskin: 5  
- KWS Santiago: 6  
- KWS Barrel: 6  
- Elation: 6  
- RGT Lantern: 6  
- KWS Parkin: 6  
- Average LSD (5%): 0.5

#### Orange wheat blossom midge

- Signal: R  
- KWS Siskin: R  
- KWS Santiago: R  
- KWS Barrel: R  
- Elation: R  
- RGT Lantern: R  
- KWS Parkin: R  
- Average LSD (5%): 0.5

This table should be read in conjunction with the AHDB Recommended List of winter wheat varieties for 2020/21. On the 1–9 scales, high figures indicate that a variety shows the character to a high degree (e.g. high resistance). Comparisons of varieties across regions are not valid.

[ ] Limited data  
@ Believed to carry the Pch1 Rendezvous resistance gene to eyespot but this has not been verified in Recommended List tests.  
R Believed to be resistant to orange wheat blossom midge (OWBM) but this has not been verified in Recommended List tests.

#### Yellow and brown rust ratings

During 2019 higher than expected levels of yellow and brown rust were seen in some varieties in some trials. Careful analysis of the 2019 data from RL trials did not reveal dramatic changes in average disease ratings. These are national average ratings and it is not yet clear if the reported cases of high yellow and brown rust disease levels in 2019 indicate the initial emergence of new rust races or exceptionally high disease pressure at some sites. Given the highly dynamic nature of the yellow and brown rust populations in the UK over recent years all varieties should be closely monitored for rusts, as local rust populations may differ from the general UK population and may be more or less virulent on a variety than the RL rating suggests.