BBRO Recommended List of Sugar Beet Varieties 2019

Capture your extra 6 % yield!

SABATINA KWS

Don’t miss out on yield progress!

SALAMANCA KWS

DAPHNA

KORTESSA KWS

CANTONA KWS

PHILINA KWS
### Rz1 Rhizomania Varieties

<table>
<thead>
<tr>
<th>Variety</th>
<th>SABATINA KWS</th>
<th>SALAMANCA KWS</th>
<th>Cayman</th>
<th>Aurora</th>
<th>Hornet</th>
<th>Haydn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status: (C) = control variety</td>
<td>R</td>
<td>R(C)</td>
<td>R</td>
<td>R(C)</td>
<td>R(C)</td>
<td>R(C)</td>
</tr>
</tbody>
</table>

### CROP YIELDS

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted tonnes % of C = 100 %</td>
<td>113.7 t/ha</td>
</tr>
<tr>
<td>Sugar yield % of C = 100 %</td>
<td>17.3 t/ha</td>
</tr>
<tr>
<td>Root yield % of C = 100 %</td>
<td>95.5 t/ha</td>
</tr>
<tr>
<td>Sugar content %</td>
<td>18.1 %</td>
</tr>
</tbody>
</table>

### BOLTERS per 100,000 plants/ha

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>“X” Unsuitable for sowing</td>
<td></td>
</tr>
<tr>
<td>BEFORE Mid March</td>
<td></td>
</tr>
<tr>
<td>Early sowing, before 5 March</td>
<td>4,689/ha</td>
</tr>
<tr>
<td>Normal sowing</td>
<td>54/ha</td>
</tr>
</tbody>
</table>

### PRE–GAPPING ESTABLISHMENT

<table>
<thead>
<tr>
<th></th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>100 %</td>
</tr>
</tbody>
</table>

### DISEASE

1 = high leaf infection  
9 = very low leaf infection

<table>
<thead>
<tr>
<th>Disease</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rust</td>
<td>5.0 6.4 5.7</td>
</tr>
<tr>
<td>Powdery mildew</td>
<td>(3.6) (5.0) (5.6)</td>
</tr>
</tbody>
</table>

### OTHER CLAIMS

<table>
<thead>
<tr>
<th>Claim</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>AYPR (Aggressive rhizomania)</td>
<td>– – – –</td>
</tr>
<tr>
<td>BCN (as claimed by the Breeder)</td>
<td>– Y – –</td>
</tr>
</tbody>
</table>

Source: Taken from the BBRO Recommended List of Sugar Beet Varieties (Based on trials from 2015 – 2017).  
Full data set can be found at: www.bbro.co.uk

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1 Newly listed varieties (PR1/PS1) have results from three years using approximately 2 kg breeders’ seed.  
2 Yields based on an average plant population of 108,000 plants/ha in these trials.  
3 Differences in yields of less than 3% should be treated with reserve.  
4 The bolters from normal sowings are applicable for sowing after mid-March in most seasons.  
5 Differences of 4% or less in the variety establishment scores are not statistically significant.  
6 Observations taken from inoculated trials not taken to yield.  

Brackets indicate figure derived from fewer than 3 years of data.
<table>
<thead>
<tr>
<th>Springbok</th>
<th>DAPHNA</th>
<th>NEW</th>
<th>NEW</th>
<th>KORTESSA KWS</th>
<th>CANTONA KWS</th>
<th>BTS 860</th>
<th>BTS 3325</th>
<th>NEW</th>
<th>NEW</th>
<th>NEW</th>
<th>NEW</th>
<th>PHILINA KWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>R(C)</td>
<td>PR2</td>
<td>PR1</td>
<td>PR1</td>
<td>PR3</td>
<td>PR3</td>
<td>PR2</td>
<td>PR1</td>
<td>PR1</td>
<td>PR2</td>
<td>PR1</td>
<td>PR2</td>
<td>PS1</td>
</tr>
<tr>
<td>99.4</td>
<td>107.9</td>
<td>107.6</td>
<td>106.2</td>
<td>103.9</td>
<td>103.7</td>
<td>103.1</td>
<td>102.4</td>
<td>101.8</td>
<td>101.6</td>
<td>101.3</td>
<td>100.2</td>
<td>99.5</td>
</tr>
<tr>
<td>99.4</td>
<td>108.3</td>
<td>108.0</td>
<td>106.0</td>
<td>103.9</td>
<td>103.7</td>
<td>103.0</td>
<td>103.0</td>
<td>102.4</td>
<td>101.5</td>
<td>102.0</td>
<td>100.4</td>
<td>99.7</td>
</tr>
<tr>
<td>99.0</td>
<td>110.4</td>
<td>108.0</td>
<td>107.0</td>
<td>103.8</td>
<td>103.3</td>
<td>102.2</td>
<td>105.0</td>
<td>106.0</td>
<td>100.9</td>
<td>104.0</td>
<td>101.7</td>
<td>100.8</td>
</tr>
<tr>
<td>18.2</td>
<td>17.8</td>
<td>18.0</td>
<td>17.9</td>
<td>18.1</td>
<td>18.2</td>
<td>18.3</td>
<td>17.8</td>
<td>17.5</td>
<td>18.2</td>
<td>17.7</td>
<td>17.9</td>
<td>17.9</td>
</tr>
</tbody>
</table>

X – X – X X – – – X – – – X

6,816 | 5,887 | 8,078 | 5,442 | 7,570 | 7,185 | 4,188 | 3,256 | 5,109 | 7,091 | 2,846 | 3,365 | 2,221 | 15,482 |

79 | 84 | 14 | 0 | 99 | 26 | 19 | 9 | 14 | 30 | 23 | 30 | 0 | 117 |

99.0 | 100.1 | 99.0 | 95.5 | 99.7 | 101.5 | 98.1 | 97.4 | 99.3 | 99.4 | 99.9 | 99.7 | 100.8 | 98.4 |

5.6 | (6.1) | (5.2) | (8.8) | 6.0 | 5.8 | (6.6) | (7.2) | 2.8 | (5.6) | (4.0) | 2.9 | (4.7) | (3.4) |

(3.4) | (6.1) | – | – | (5.5) | (5.0) | (5.2) | – | (3.8) | (2.7) | – | (5.0) | (2.9) | – |

– | – | – | – | – | – | – | – | – | – | Y | – | Y | – | – | – | Y | – | – | – | – | – | – |

Source: Taken from the BBRO Recommended List of Sugar Beet Varieties (Based on trials from 2015 – 2017). Full data set can be found at: www.bbro.co.uk
Capture your extra 6% yield!

Adjusted tonnes % of the control varieties of the BBRO RL 2019

* AYPR resistant variety

Source: BBRO Recommended List of Sugar Beet varieties 2019
The UK’s most popular performer

SABATINA KWS continues to prove popular with UK growers being the most popular variety for a third year in 2018. Its consistent yield performance in trials places it more than 3% ahead of controls and in the top 5 varieties of the 2019 RL.

With noted yield increases after November in BBRO trials in 2017, SABATINA KWS is expected to remain a first choice for many and will deliver its best performances when sown from mid March onwards.

SABATINA KWS – consistently yielding ahead of controls

Adjusted tonnes % of control varieties

<table>
<thead>
<tr>
<th></th>
<th>104</th>
<th>103</th>
<th>102</th>
<th>101</th>
<th>100</th>
<th>99</th>
</tr>
</thead>
<tbody>
<tr>
<td>SABATINA KWS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cayman (C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hornet (C)</td>
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<td></td>
</tr>
<tr>
<td>Haydn (C)</td>
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<td></td>
</tr>
<tr>
<td>Springbok (C)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: BBRO Recommended List of Sugar Beet varieties 2019
Don’t miss out on yield progress!

What’s the additional yield worth to you?

Variety A 107.9 %

80.93 t/ha

+79.81 £/ha

Variety A 106.9 %

80.18 t/ha

+63.31 £/ha

Variety A 105.9 %

79.43 t/ha

+46.81 £/ha

Source: KWS own calculations
Variety A 104.9 %
78.68 t/ha
+30.31 £/ha

Variety A 103.9 %
77.93 t/ha
+13.81 £/ha

Variety B 100 %
75.00 t/ha

Source: KWS own calculations
Returning for 2019 drilling!

Bred specifically for the UK, SALAMANCA KWS makes a welcome return. An adjusted yield more than 3% higher than controls place it firmly in the top 10 varieties which, combined with a robust disease resistance package, make SALAMANCA KWS a sound choice for 2019.

Unsuitable for sowing before mid March, SALAMANCA KWS will appeal to growers looking to drill a range of varieties to spread their drilling workload.

**SALAMANCA KWS offers good resistance to principal foliar diseases**

BBRO disease scoring

<table>
<thead>
<tr>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SALAMANCA KWS</strong></td>
<td>Cayman (C)</td>
<td>Hornet (C)</td>
<td>Haydn (C)</td>
<td>Springbok (C)</td>
<td></td>
</tr>
</tbody>
</table>

- Rust
- Powdery mildew

1 = high leaf infection 9 = very low leaf infection

Source: BBRO Recommended List of Sugar Beet varieties 2019
DAPHNA

- Unbeatable adjusted yield at 107.9% of controls *
- Low early sown bolters
- BCN tolerant

* 2019 BBRO Recommended List

Still the best variety for the UK

Once again the BCN tolerant DAPHNA tops the BBRO Recommended List, outperforming all other varieties for a second year. More than 6% higher yielding than the control varieties, DAPHNA continues to set the benchmark for yield and improved farm gross margins.

DAPHNA’s strong disease resistance and suitability for drilling before mid March make it a great choice for all growers in 2019.

DAPHNA is more than 6% higher yielding than the control varieties grown in the RL trials

Adjusted tonnes % of control varieties

<table>
<thead>
<tr>
<th></th>
<th>Cayman (C)</th>
<th>Hornet (C)</th>
<th>Haydn (C)</th>
<th>Springbok (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>108</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>106</td>
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<td>98</td>
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</tr>
</tbody>
</table>

Source: BBRO Recommended List of Sugar Beet varieties 2019
KORTESSA KWS shows very low rust infection levels

**BBRO disease scoring**

<table>
<thead>
<tr>
<th></th>
<th>Cayman (C)</th>
<th>Hornet (C)</th>
<th>Haydn (C)</th>
<th>Springbok (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
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<td>4</td>
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<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

* = Score from less than three years data

1 = high leaf infection  9 = very low leaf infection

Source: BBRO Recommended List of Sugar Beet varieties 2019

The new SABATINA KWS!

New for 2019, KORTESSA KWS combines yields more than 6% higher than controls and very low normal sown bolters over the last three seasons.

With low early sown bolters making it suitable for early drilling and very high rust score, KORTESSA KWS is the ideal choice for a long growing season.
CANTONA KWS

- Top 5 for adjusted yield at 103.9 % *
- BCN tolerant
- High sugar content

* 2019 BBRO Recommended List

The perfect BCN partner

An adjusted yield more than 3 % higher than controls place CANTONA KWS in the top 5 varieties for 2019. A high sugar content of 18.1 % makes it the right choice for growers further away from the sugar factory.

Unsuitable for sowing before mid March, CANTONA KWS will appeal to those with positive BCN samples and looking to drill a range of varieties to spread their workload in the Spring.

CANTONA KWS has the highest sugar content with BCN tolerance

Sugar content %

Source: BBRO Recommended List of Sugar Beet varieties 2019
PHILINA KWS

- Top 5 for adjusted yield at 104.9 %*
- Rz1 and Rz2 genes resistant to rhizomania
- Specially recommended for use against AYPR strains

*2019 BBRO Recommended List

Strongest rhizomania resistance – now without the yield penalty!

NEW for 2019 and with an adjusted yield well over 3 % higher than controls, PHILINA KWS means there is no longer a yield penalty for those growers with soils containing the AYPR strain of rhizomania.

Containing the Rz2 gene in addition to the standard Rz1 gene, PHILINA KWS has double rhizomania resistance and provides growers the best tool to beat rhizomania. It is the only variety to choose if rhizomania is affecting your business performance.

**PHILINA KWS**

- Top 5 yield and AYPR resistance in the same variety

Adjusted tonnes % of control varieties

<table>
<thead>
<tr>
<th>PHILINA KWS</th>
<th>Cayman (C)</th>
<th>Hornet (C)</th>
<th>Haydn (C)</th>
<th>Springbok (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>104</td>
<td>102</td>
<td>100</td>
<td>98</td>
<td>98</td>
</tr>
</tbody>
</table>

Source: BBRO Recommended List of Sugar Beet varieties 2019
Your crop.
Your choice.
Our dedication.

KWS. Independent like you.
Making your own decisions. That is independence.
You know what’s best for your farm. We have the ideal variety.

www.kws-uk.com
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Jonathan Pilbrow
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