

Scotland's Rural College

Cereal Varieties Summer 2023 Update: Winter wheat, Winter barley and Spring barley

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Cereal Varieties

Summer 2023 Update

Winter wheat

Winter barley

Spring barley



Winter Wheat

North region yields are given as the % of fungicide-treated controls [11.3 t/ha]. Untreated yield is a % of UK treated controls (10.9 t/ha).

Top Picks

Winter wheat varieties with soft endosperm remain the most important choices for Scottish growers in meeting needs of the grain distilling sector. The nabim soft Group 4 category includes well known distilling varieties **LG Skyscraper**, **Elation** and **Swallow**, and second year varieties **RGT Stokes** and **RGT Bairstow**, along with new variety **KWS Zealum**.

Two Group 3 biscuit-making varieties, **LG Illuminate** and **KWS Brium** also suit distilling use.

For hard wheat, established feed varieties **SY Insitor** and **Gleam** are supported by **KWS Dawsum** and **LG Typhoon**. Three Group 2 milling varieties, **KWS Extase**, **KWS Palladium** and **KWS Ultimatum** have value in their early maturity and excellent untreated yield.

The Full List – Alphabetic Order

Almara (SEWC148). Candidate biscuit-making variety. Average treated yield, but good untreated yield. No significant disease weakness. Good specific weight and intermediate straw strength. Hagberg figures look low.

Bamford (EW8768). Candidate biscuit-making variety, with potential for distilling use. Excellent treated and untreated yield. Has high specific weight. Good resistance to Septoria, yellow rust and mildew.

Blackstone (EW81055). Candidate feed variety with soft textured grain and potential for distilling use. Good treated and untreated yield, with high specific weight. Good disease resistance and average straw strength.

Bolinder (EWQ0377). Candidate feed variety with hard textured grain. Good treated and untreated yield. Moderate specific weight. Good resistance to Septoria, yellow rust and mildew.

Champion Very high-yielding hard feed variety, though specific weight is very low. It has the highest UK hard-wheat yield, though underperforms in the North [102]. It has excellent untreated yield [93], and suits a range of rotational positions, soil types and sowing dates. It has performed well in the East and West regions. Straw strength is moderate. It has high resistance to mildew and yellow rust, very high resistance to Septoria tritici, and resistance to OWBM.

Costello A hard-milling feed variety with an outstanding specific weight [81.2] and very high Hagberg figures. It has modest yield [101] and intermediate untreated yield [86] and has attracted interest among feed wheat growers as a consistent performer. It has short stiff straw and good resistance to mildew and yellow rust, but it is susceptible to eyespot. It has a high yield potential in a late sown position. It is relatively late maturing.

Crusoe This Group 1 variety is rarely grown in Scotland, though in bread-making millers value its consistently good baking performance and bread crumb structure. North region yield is low [94], as is untreated yield [76]. It has a high specific weight. It has short straw and good resistance to mildew, yellow rust and Septoria tritici, but is susceptible to eyespot and very susceptible to brown rust.

Elation No longer in trials. A North region recommendation as a soft feed variety. It has uks for export and is rated 'good' for distilling. It has a competitive yield [101], but poorish untreated yield [80]. Specific weight is good and Hagberg figures are moderate. It has high resistance to yellow rust and mildew, combined with resistance to OWBM. It is susceptible to *Septoria tritici* and eyespot. It has intermediate resistance to sprouting. It has performed well as a second wheat and suits lighter textured soils.

Elicit No longer in trials. Group 3 biscuit-making variety that is rated 'good' for distilling and has uks for export. Tends towards slightly lower Hagberg Falling Number and slightly weaker gluten than other Group 3 varieties, but it meets biscuit-making criteria. Has performed well in the North region, and when early sown. It has moderate straw strength but responds well to PGRs. It has high resistance to yellow rust, and moderate resistance to *Septoria tritici*, combined with resistance to OWBM. It is very susceptible to eyespot. It has intermediate resistance to sprouting.

Gleam A high-yielding hard feed [103], with intermediate specific weight. It has lowish untreated yield [84]. It is relatively early maturing. It is weak for yellow rust and eyespot. It has given high treated yields across a range of rotational positions, soil types and sowing dates. It looks relatively strong in the second cereal position. It has OWBM resistance. It has some sprouting risk.

Graham This hard feed variety has a competitive treated yield [102] and very high untreated yield [93]. It produces good Hagbergs. It has performed best in the West region but has also been popular with feed growers in the north of England. It has early maturity with good results as a first cereal and on heavier soils. It has good resistance to mildew, yellow rust and *Septoria tritici*, but is susceptible to eyespot.

KWS Barrel Is no longer listed. A Group 3 variety with biscuit making and uks for export, but is rated 'poor' for distilling. It has short and stiff-straw and has produced good treated yields in the North region, though its untreated yield is very poor. It has performed particularly well on lighter soils. Its yellow rust resistance has declined, and it is very susceptible to *Septoria tritici* and eyespot, but has OWBM resistance.

KWS Brium A Group 3 that meets biscuit-making criteria. It is rated 'medium' for distilling. It has been high yielding in the East region, with goodish results in the North [100]. It suits a range of sowing dates and is moderate to good as a second wheat. It has high resistance to yellow rust and mildew, though is relatively late maturing.

KWS Cranium A high-yielding hard feed variety, with high Hagbergs but a low specific weight. It is best suited to the East region and has performed well across a range of rotational positions and on lighter soil. It also suits late sowing. It is medium-tall variety with stiff straw. It has high resistance to yellow rust, with resistance to OWBM, it is susceptible to brown rust.

KWS Dawsum Very high-yielding [105] hard feed wheat, with very high Hagbergs and specific weight. It has performed well in all regions and has high yield potential across a range of rotational positions, soil types and sowing dates. It has excellent untreated yield [95]. Its short straw is fairly stiff. It has with high resistance to mildew, yellow rust and brown rust, and goodish resistance to *Septoria tritici*.

KWS Dragum (KWSW411). Candidate bread-making variety. Good yield for a quality wheat, also has good untreated yield and specific weight. Straw strength looks relatively weak. Good resistance to yellow rust and mildew.

KWS Extase A Group 2 milling wheat with ukp for export. Good Hagberg and specific weight, and acceptable protein levels, with similar quality to other Group 2s. Treated yield is lower in the North region [100], but untreated yield [97] is exceptionally high. An early maturing variety and versatile across a range of soil types, rotational positions and when sown late. Fairly stiff straw with high resistance to *Septoria tritici*, yellow rust, brown rust and mildew, but it is very susceptible to eyespot. Note: this variety can show weakness to ear sterility on exposed land or fields prone to late spring frosts.

KWS Fifefly Group 3 biscuit-making variety with uks for export. It meets milling criteria, but is rated as 'poor' for distilling, and has low specific weight. It has short, stiff, straw. Yields in the East region and on heavier soils have been good. It suits different sowing dates and second cereal slot. It has resistance to OBWM, but it is very susceptible to eyespot.

KWS Guium Group 3 variety that meets biscuit-making criteria. Rated 'medium' for distilling, though was not recommended for the Scottish List. Has high specific weight. Suits a range of soil types, rotational positions and sowing dates. Some evidence for good performance when sown early and on heavier soils. It is late-maturing variety [+3]. It has high resistance to yellow rust and fusarium ear blight, and resistant to OWBM, though is very susceptible to brown rust.

KWS Jackal A North region soft feed recommendation, rated 'medium' for distilling, but is no longer on the Scottish List. It is becoming outclassed for yield [100] and untreated yield is poor [78]. Has a low specific weight. It suits early sowing. It has high resistance to yellow rust and mildew, with resistance to OWBM, but is susceptible to eyespot. Straw strength is moderate. It is moderate as second wheat and has some sprouting risk.

KWS Kerrin Is no longer listed. A high-yielding hard feed variety suited to the East and West regions, though it has underperformed in the North. It suits different rotational positions, late sowing and lighter soils. It has high resistance to mildew and brown rust, with resistance to OWBM, but is very susceptible to yellow rust and eyespot. Untreated yield is very poor. It has some risk of sprouting.

KWS Palladium Group 2 hard milling variety. It has a modest North region yield [99], but untreated yield is excellent [94]. High Hagbergs and potential for good protein levels. It is early maturing and suits different rotational positions. Short and stiff straw. Good resistance to yellow rust, mildew and *Septoria tritici*. Its flour quality is relatively good, though baking performance varies more than a Group 1.

KWS Siskin Group 2 variety, with ukp for export. It has modest treated yield [99] and mediocre untreated yield [87]. It has high Hagbergs and has given good protein levels. Can produce a slightly yellow flour and some variability in baking performance. It performs well when sown early. It has moderate straw strength. It has good resistance to *Septoria tritici*, yellow rust and mildew, but it is susceptible to eyespot. It has some sprouting risk.

KWS Skateum (KWSW422). Candidate biscuit-making variety, under test for distilling as well. Average treated yield. Good untreated yield and specific weight. Average straw strength and no significant disease weaknesses.

KWS Ultimatum New bread-making variety with good North region yield [103] and very good untreated yield [93]. It has excellent specific weight and good Hagberg. Straw strength looks very good.

KWS Zealum A new soft feed variety recommended for the the North region. It is rated medium for distilling. It has good treated yield, with modest untreated yield. Specific weight and Hagberg figures are below average. It responds well to plant growth regulators. Resistance to yellow rust and Fusarium is good. Maturity is similar to most newish varieties.

KWS Zyatt Group 1 bread-making variety. Meets specification for export. Good protein. High yield means careful N management to achieve bread making specification. It has high Hagberg figures and specific weight. North region yield is 98 and untreated yield is poor [75], in part due to its extremely poor resistance to yellow rust. It is versatile in rotational position and sowing date, and has stiff straw and early maturity. It suits heavier textured soils and is good in the second wheat position. Quality tests indicate good processing and baking performance.

LG Arkle (LGWU188). Candidate biscuit-making variety. Good treated and untreated yield, though straw strength is weaker than average. It has good specific weight, and good resistance to mildew and yellow rust, though resistance to eyespot is poor.

LG Astronomer Group 3 variety rated 'medium' for distilling, though it is no longer on the Scottish List. It meets biscuit-making criteria, though gluten quality may vary. It has stiff straw and has yielded best in the East region and on heavier soils. It suits early sowing. It performs less well in the North [97], but untreated yield is relatively good [88]. It has high resistance to yellow rust, brown rust and *Septoria tritici*, and is resistant to OBWM. It is susceptible to mildew.

LG Beowulf (LGWU182). Candidate hard feed variety, with excellent treated and untreated yield coupled with very good specific weight. It has good all-round disease resistance and straw strength looks average.

LG Clyde (LGWU184). Candidate soft textured feed variety with excellent treated yield and good untreated yield. Provisional data indicates very weak straw and high lodging risk. It has poor resistance to eyespot, but otherwise no significant disease weaknesses.

LG Grendel (LGWU186). Candidate biscuit-making variety with average treated yield and good untreated yield. It has low specific weight and below average straw strength. It has good resistance to yellow rust and *Septoria*.

LG Illuminate A Group 3 biscuit-making variety with uks for export, and rated 'medium' for distilling. It has produced consistent treated yields in the North region [100] and on lighter textured soils, and suits early sowing. It is short-strawed, with intermediate straw stiffness. It has good resistance to yellow rust and brown rust and has resistance to OBWM.

LG Partridge (LGWU177). Candidate bread-making variety with high treated and untreated yield and average specific weight. It has good all-round disease resistance and average straw strength.

LG Prince Group 3 biscuit-making variety rated 'medium' for distilling. Its protein levels can be lower than other Group 2s. It has produced good yields in East and West regions but underperforms in the North [98]. It suits a range of soil types, sowing dates, and the second-cereal position. It is relatively late maturing. It has high resistance to yellow rust and brown rust, and resistance to OBWM. It is susceptible to mildew.

LG Redrum (LGWU180). Candidate hard feed variety. Very good treated and untreated yield, and specific weight.

LG Redwald A new soft feed variety with a medium rating for distilling. It has high treated yield [103], though in better in the East and West than in the North. It has good untreated yield [92]. Specific weight and Hagbergs are very low, and maturity is similar to other newish varieties. It has weak straw and will need careful management with plant growth regulators.

LG Skyscraper High yielding [102] and early maturing soft feed variety, rated 'medium' for distilling. Has produced good yields across a range of soil types, sowing dates and rotational positions. It performs well as second cereal. It is medium-tall straw with only moderate strength. It has high resistance to yellow rust and mildew, and is resistant to OWBM, but is susceptible to *Septoria tritici* and eyespot, with lowish untreated yield [86]. It has some sprouting risk.

LG Spotlight Is no longer listed by the AHDB. It was a North region soft feed recommendation, rated 'medium' for distilling. It became outclassed and is no longer on the AHDB RL. It has high Hagbergs and specific weight. It is best suited to a first cereal position, late sowing and heavier soils. Its straw is medium-tall and relatively stiff straw. Its yellow rust resistance has declined and resistance to *Septoria tritici* is mediocre. It has OWBM resistance.

LG Typhoon Hard feed wheat, with moderate treated [101] but high untreated yield [92]. It has high yield potential in a second cereal position and may suit early sowing and lighter soils. It is relatively late maturing. It has shown no major weaknesses to disease and has high resistance to mildew, yellow rust and *Septoria tritici*, with resistance to OWBM.

Mayflower Group 2 bread-making variety, with ukp for export. Has produced high Hagbergs and specific weight and achieved good protein specification for milling. Has done well in East region and suits the second cereal position. North region yield is modest [96], but untreated yield is very good [93], reflected by good all-round disease resistance; including high ratings against yellow rust and mildew, and excellent resistance to *Septoria tritici* [8.2]. Its moderate straw strength responds well to PGRs. It has the Pch1 eyespot resistance gene. On quality, it has good flour water absorption, though baking performance can be variable.

Merit Group 3 biscuit-making variety recommended for the East region where it produces its best yields. Its North region yield is 100. It has uks for export and is rated 'medium' for distilling. It suits lighter soils and yields well in a late sowing situation. Straw strength is moderate, but it responds well to PGRs. It has high resistance to yellow rust and brown rust, and resistance to OBWM. It is susceptible to mildew and *Septoria tritici* and very susceptible to eyespot, reflected in a mediocre untreated yield [84].

Oxford A new hard feed variety recommended for the East & West region. A very good UK yield [104], but underperforms in Scotland [100]. It has intermediate untreated yield [89]. Its specific weight is low [76.0]. Maturity is average.

RGT Bairstow Soft feed variety rated 'good' for distilling. It is high yielding [103], with intermediate untreated yield [87]. Specific weight is low. It has performed well across a range of rotational positions and soil types. It is a good second wheat and suits late sowing. Straw strength is relatively weak. It has good resistance to yellow rust, and resistance to OWBM. Resistance to *Septoria tritici* is above average.

RGT Gravity Is no longer listed by the AHDB. This hard feed variety yielded well in the North region. Its Hagberg figures and specific weight are below average. Resistance to mildew and *Septoria tritici* is relatively low, with a poor untreated yield. Performance as a second wheat, or when late sown, was very good. It is a medium-tall variety with moderate straw strength but responds well to PGRs.

RGT Grouse (RW42046). Candidate hard textured wheat with special traits in BYDV and OWBM resistance. It is low yielding with lowish specific weight. Straw strength is average. It has weakness to yellow rust.

RGT Illustrious Group 1 bread making variety with high Hagbergs and potential for good protein. It also has good specific weight. Treated yield is low [95] and untreated yield mediocre [85]. It is medium-tall with intermediate stiffness. Good has good resistance to yellow rust, mildew and eyespot. On quality, it has good breadmaking potential at range of protein levels.

RGT Rashid Group 3 variety that has met biscuit-making criteria and is rated 'medium' for distilling. It has an East region recommendation, where it has produced high yields, though it underperforms in the North [98]. It is a very late maturing [+3], but stiff-strawed variety. Limited data indicates suitability to late sowing. It has high resistance to yellow rust, *Septoria tritici* and fusarium ear blight, and resistance to OWBM, though is susceptible to mildew and eyespot; untreated yield is poor [81].

RGT Saki A soft feed variety that is rated 'poor' for distilling. It has a low specific weight. It has produced high treated yields [102] across a range of rotational positions and soil types. It suits a wide range of sowing dates. It is late maturing [+3]. It has moderate straw strength but responds well to PGRs. It has good resistance to yellow rust and brown rust, with resistance to OWBM. It is susceptible to eyespot.

RGT Stokes Soft Group 4 feed variety rated 'good' for distilling. It is high yielding [103] across rotational positions and soil types, but has a low specific weight. It is relatively late maturing. Its weak straw responds well to PGRs. It has good resistance to yellow rust and *Septoria tritici*, though untreated yield is intermediate [87].

RGT Wilkinson A new biscuit-making variety with a medium rating for distilling, but was not added to the Scottish List. North region yield is 100 and untreated yield is intermediate [87]. It has an average Hagberg, but low specific weight. Initial data indicates that straw strength is good and maturity intermediate.

RGT Wolverine A hard feed variety with a specific recommendation for resistance to Barley yellow dwarf virus (BYDV). It has modest yield [100] and a low specific weight. It has a very poor untreated yield [74] and is relatively late maturing. It has high resistance to brown rust, but it is susceptible to yellow rust.

Skyfall An established bread-making variety, but with very limited use in Scotland. It has been popular as a feed variety in the north of England. Treated yield is modest [96] and untreated yield poor [70] due to its extremely poor resistance to yellow rust and mediocre resistance to *Septoria tritici*. An awned wheat with short, stiff straw. It's the only Group 1 variety with resistance to OWBM. Good resistance to brown rust, fusarium ear blight and eyespot. It is early ripening and can be grown as a first or second wheat. It has high Hagbergs and specific weight and is favoured by bread-makers because it shows good milling and baking qualities.

Swallow A soft-milling feed variety recommended for the North region where yield [101] is above its UK average. It has a low specific weight and is rated 'good' for distilling. Has given its best relative performance in an early sowing situation and on lighter soils. Swallow is stiff-strawed and is the shortest variety on the Recommended List. It has resistance to OWBM, but it is very susceptible to eyespot. It has some sprouting risk.

SY Cheer (SY120623). Candidate bread-making variety with modest treated yield, but good untreated yield. It has excellent specific weight. Apart from eyespot, disease resistance is good, and straw strength average.

SY Insignia Very high yielding [105] hard Group 4 variety. It has high Hagbergs and specific weight. Has performed well across a range of soil types, rotational positions and in a late sowing situation. Its weak straw responds well to PGRs. It has high resistance to *Septoria tritici* and fusarium ear blight, and resistance to OWBM. It is susceptible to rusts, eyespot and mildew; reflecting a low untreated yield [82]. It has some sprouting risk.

Theodore A hard feed variety recommended for the West region. It seriously underperforms in the North [95], though has a very good untreated yield [93]. It has high Hagbergs, but very low specific weight. Its moderate straw strength responds well to PGRs. It has high resistance to yellow rust, brown rust and mildew, and excellent resistance to *Septoria tritici* [9.1]. Note: this variety can show weakness to ear sterility on exposed land or fields prone to late spring frosts.

Winter Barley

North region yields are given as the % of fungicide-treated controls [10.4 t/ha]. Untreated yield is a % of UK treated controls [9.8 t/ha].

Comment and Top Picks

In two-row feed varieties, the best yields have been achieved by **LG Mountain**, **KWS Tardis**, **Bolton**, **Lightning** and **LG Dazzle**, but especially the new variety **LG Caravelle**. Feed varieties with the best grain quality are **Valerie**, **LG Mountain** and **LG Caravelle**. Most two-row varieties have weakness to one or more of the major diseases e.g. mildew, *Rhynchosporium* or net blotch.

The list of six-row varieties is dominated by hybrids. For 2023/24, **SY Kingsbarn**, **SY Thunderbolt**, **SY Kingston** and **SY Canyon** and newcomer **SY Nephin** have the top yields. The only conventional six-row varieties are the outclassed **Funky** and the new **KWS Feeris**, which is believed to have tolerance to barley yellow dwarf virus.

The Scottish market for winter malting varieties remains small, at just under 12% of the total UK intake. The main malting choices are **Craft** and the variety **Buccaneer**. Malting varieties have a significant yield penalty compared to most feed varieties.

Specific weight along with disease resistance, maturity and straw stiffness should be considered when making variety choices. Unless stated otherwise, all the varieties listed below are believed to have resistance to barley mild mosaic virus (BaMMV) and barley yellow mosaic virus (BaYMV) strain 1.

MBC = Malting Barley Committee.

Aleksandra (BOLB17.4211). Candidate two-row feed variety with intermediate yield, but outstanding specific weight [73.3].

Bazooka This hybrid six-row is high yielding [104] with intermediate untreated yield [84]. It has a good specific weight and relatively low screenings. It has tall stiff straw but can lodge under high pressure situations. It has intermediate disease resistance, though is relatively weak for mildew. Maturity is intermediate. It yields well in all regions and performs well on all soil types.

Belfry This hybrid six-row has high yield [104] and relatively good untreated yield [88]. It is average for specific weight and screenings. It has stiff straw, though high yielding crops are prone to leaning and lodging. Belfry has high resistance to *Rhynchosporium*. Maturity is intermediate. It has performed well on heavy textured soils.

Belmont A very high yielding six-row hybrid feed variety. Belmont has given very high yields in the East and West regions and has high yield potential in the North [105], though untreated yield is poor [78]. It is a tall variety with moderate straw strength and requires PGR careful management. It has high resistance to *Rhynchosporium* but is susceptible to other diseases.

Bolivia A new two-row feed variety with competitive North region yield [102] and good untreated yield [89]. Specific weight is intermediate. It is early maturing. Has excellent resistance to mildew and brown rust. Initial data indicate good straw stiffness and goodish resistance to brackling.

Bolton A high yielding two-row feed variety [102], though with most potential in the East region. It suits all soil types. Specific weight and screenings are both towards good. Untreated yield is intermediate [86]. It has good straw stiffness and average maturity.

Bordeaux A high yielding two-row feed variety [102] with excellent specific weight and low screenings, but limited interest saw it removed from the Scottish List. This relatively stiff-strawed variety has given high yields in the North region and across soil types. It is very susceptible to *Rhynchosporium*, which is reflected in its low untreated yield [83].

Buccaneer A new malting variety with a competitive yield [102] and good specific weight. It has good resistance to *Rhynchosporium* [7] and above average untreated yield [87].

California Is no longer in AHDB trials. Recommended for the West for its tall stiffish straw, it has early maturity and moderate specific weight. Disease resistance is intermediate. It is well suited to heavier soils. Its North region yield [94] is significantly outclassed by other two-row varieties, and untreated yield [80] is poor for this category.

Craft This malting variety has MBC Full Approval for brewing. From harvest 2022 it had 48% of the UK intake and 40% of the Scottish market. Before choosing, check if there is any market interest for 2023/24. Treated yield [94] is very low compared to feed varieties. Specific weight is good. It has stiff straw, but low untreated yield [79], reflected in average disease resistances.

Demoisel (SC22693TH). Candidate 6-row variety with potential for brewing. It has acceptable malting quality. Agronomic yield is relatively low [97], but specific weight high [71.3].

Electrum Fully approved by MBC for the production of malt for brewing, but had only 3% of the Scottish intake from harvest 2022. It has a high specific weight. It has given its best relative performance in the East region and on heavier soils. It is a relatively early-maturing variety. It has average disease resistances, with a low untreated yield [79].

Funky A relatively early maturing conventional six-row variety with intermediate treated yield [103] and fairly good untreated yield [88]. The variety is now becoming outclassed. It tends to give a good specific weight but high screenings. It has short and stiff-straw and gives its best performance in the North and West regions. It has high resistance to brown rust but is otherwise average for disease resistance.

Jordan A two-row feed variety with a good specific weight. It is no longer on the AHDB RL. It yield best in the East region, but underperformed in the North. It has moderate straw strength and requires careful management. It has high resistance to brown rust and *Rhynchosporium* and produced intermediate yields in untreated trials.

KWS Amistar Not on the AHDB RL. High yielding conventional 6-row. French bred six-row feed. Very early maturing and high specific weight. Good lodging and brackling resistance. It has Barley Yellow Dwarf Virus (BYDV) tolerance and has performed strongly in breeder's and commercial trials in the past two years.

KWS Cassia A long established two-row feed variety, much valued for its very high specific weight. Its yield has become outclassed [95] though it is still valued for consistency in grain quality, with very high specific weight [72.4]. It has high resistance to brown rust, but otherwise poorish disease resistance, reflected in its poor untreated yield [82].

KWS Creswell A two-row feed variety no longer listed by AHDB. Treated yield is below average and very poor untreated yield reflects weaknesses to mildew and net blotch. It has achieved high yields on lighter soils.

KWS Feeris A conventional six-row feed variety with a specific recommendation for its tolerance to Barley yellow dwarf virus (BYDV). This variety has good specific weight and very low screenings. It has a high yield potential in the East and West regions [103] but underperforms in the North [100]. It is a relatively stiff-strawed variety. Untreated yield is below average for a six-row variety [85], including high susceptibility to mildew.

KWS Gimlet Although a recent introduction, this two-row feed variety is no longer listed by the AHDB. It is tall and had performed particularly well in the East region, but less so in the North. Specific weight is good and screenings average. It is relatively late maturing, with moderate straw strength that requires careful management. It has high resistance to mildew, though untreated yield is towards very poor. Limited data indicated suitability to heavy textured soils.

KWS Hawking A two-row feed variety with modest yield [98]. This relatively stiff-strawed variety is best suited to heavier textured soils. It has a good specific weight, with mediocre untreated yield [83] reflected by average disease resistances. It has intermediate maturity.

KWS Infinity This two-row feed variety is no longer on the AHDB RL. It is relatively stiff-strawed, but with mediocre untreated yield. It has high resistance to brown rust, but it is very susceptible to mildew.

KWS Orwell An established two-row feed variety, though yield has become outclassed [98]. It also has low untreated yield [82] and intermediate specific weight. It has stiff medium-length straw. It is very weak for mildew and has average Rhynchosporium resistance. Maturity is average. It suits both heavy and lighter textured soils.

KWS Tardis A high yielding [102] two-row feed variety with a high specific weight. It has performed particularly well in the East region and on heavier textured soils. Agronomically strong with stiff straw and high resistance to Rhynchosporium. Untreated yield is intermediate [85].

LG Capitol (LGBU18-6905-D). Candidate two-row feed variety. It has produced very high yields and has very good specific weight.

LG Caravelle A new two-row with high yield [104] and excellent specific weight [71.8]. Agronomics are very strong, with good resistance to Rhynchosporium, mildew and brown rust. It is a shorter variety and initial data indicate good straw stiffness, and good resistance to brackling.

LG Dazzle A high yielding two-row feed variety. It has produced its best yields in the East region, but North region yield is competitive [101]. It has high yield potential on heavier soils. Specific weight and screenings are intermediate. Straw strength is average. It has high resistance to Rhynchosporium and brown rust, but limited data suggest it is susceptible to net blotch. Untreated yield is very good [88].

LG Flynn A two-row feed variety with a very high specific weight and low screenings. It is no longer on the AHDB RL. This relatively tall variety has intermediate yield. It is relatively late-maturing variety. It has weakish disease resistance and low untreated yield.

LG Mountain An established two-row feed variety with a high specific weight [71.1]. It is high yielding [101] and suits all soil types. It is early maturing. Its moderate straw strength requires careful management. Has weakish disease resistance and low untreated yield [83].

Lightning A high yielding [103] two-row feed variety with intermediate specific weight. It has performed well across all regions. Has high resistance to mildew and brown rust and has given high yields [90] in untreated UK trials. This variety has moderate straw strength and requires careful management.

Resolute (NOS916.008-52). Candidate two-row feed variety. It has a good specific weight but may underperform in the North region.

Surge A two-row feed variety with a high specific weight [70.6]. It is no longer in RL trials. It underperforms in the North region [99] and yields best in the East [102]. It suits heavier soils. It has good resistance to Rhynchosporium and to brown rust and has given good yields [88] in untreated UK trials.

SY Buzzard (SY220061). Candidate six-row hybrid, with BYDV tolerance. Its yield is behind the established varieties, and specific weight is intermediate.

SY Canyon A 6-row hybrid with a competitive yield [105], a good untreated yield [91] and excellent specific weight [71.7]. It is relatively early-maturing variety has performed well across all regions and soil types. It has high resistance to mildew. As a tall, and high yielding, variety its straw strength requires careful management.

SY Harrier (SY220060). Candidate six-row hybrid. Data cannot be published as variety has not completed National Listing.

SY Kingsbarn A very high yielding [107] six-row hybrid feed variety with a high specific weight and low screenings. This variety has given very high yields throughout the UK and has a high yield potential on lighter soils. It has moderate straw strength but responds well to PGRs. It has high resistance to mildew.

SY Kingston A very high yielding [106] six-row hybrid feed variety with a high specific weight. This relatively early-maturing variety has also given very high treated yields [107] in West region. It has also performed well on lighter soils. It is a tall variety with relatively weak straw and requires careful management. It has no major weaknesses in disease resistance, with a good untreated yield [88].

SY Loona SY219823B. Candidate six-row hybrid. Has produced some outstanding yields, with intermediate specific weight.

SY Nephin A new six-row hybrid with very good treated [105] and untreated [90] yields and high specific weight [71.4]. It has very good resistance to Rhynchosporium. Initial data indicate that straw strength is similar to other hybrids.

SY Thunderbolt A very high yielding [105] six-row feed hybrid variety with a high specific weight. This tall and relatively early-maturing variety has given very high treated yields throughout the UK and on heavier soils. It has relatively weak straw and requires careful management. It has high resistance to mildew, and intermediate resistance to other diseases, reflected in its good untreated yield [89].

Valerie A two-row feed variety with intermediate yield [100] and very high specific weight [71.2]. It also has very low screenings. This variety combines good grain quality characteristics with relatively stiff straw. It is a relatively early-maturing variety.

Valiant (AC14/361/28). Candidate two-row feed variety. Its best yields have been in the East region, with some underperformance in the North region. It has intermediate specific weight.

Valvira (AC14/066/83). Candidate two-row feed variety, with BYDV tolerance. On limited information, its North region yield has very high, though specific weight is relatively low.

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Spring Barley

Yield figures are for the North region as a % of the treated controls [7.8 t/ha]. Untreated yield is a % of UK treated controls [7.5 t/ha].

Top Picks

The market leaders for malting use are **Laureate** (brewing and malt distilling), **KWS Sassy** (distilling), **LG Diablo** (brewing and malt distilling) and Firefoxx (distilling). **Fairing** is the recommended variety for grain distilling.

There are two Year-One malting varieties with potential for malt distilling, **Diviner** (D) and **SY Tennyson** (B and D).

For feed options, use a high yielding malting variety or a consistent performer such as **RGT Planet** or the new feed variety **Hurler**.

MBC = Malting Barley Committee.

Belter(SC70555X)Candidate malting variety with potential for brewing and distilling. High yield, especially in the west. Low brackling risk. Mediocre disease resistance. Average maturity.

CB Score Specialist brewing variety with the Null-Lox 4G grain quality trait; which lacks the genes for production of lipoxgenase and dimethyl sulphate both of which can affect beer quality. It has a good treated [101] and untreated yield [92]. It is relatively stiff-strawed, with high resistance to brackling. Resistance to Rhynchosporium is above average.

Diviner New malting variety with MBC Provisional Approval 1 for malt distilling. It is high yielding [105] and has good specific weight. It is short-strawed with low lodging risk, high brackling resistance and average maturity.

Fairing Fully approved by the MBC, with a specific recommendation for its suitability for production of malt for grain distilling. Yield is low [92] but specific weight is good. It is very early maturing [-2], with stiff straw and high resistance to brackling. It has very high resistance to mildew and Rhynchosporium, but it is susceptible to brown rust.

Firefoxx A high yielding [103] malting variety, with MBC Full Approval for malt distilling. Its specific weight is intermediate. It is short strawed and relatively stiff, with high resistance to brackling. It is relatively early maturing. It has low resistance to Rhynchosporium and brown rust.

Florence New malting variety but no longer under MBC test for brewing. It is high yielding [104], with good specific weight. Untreated yield is very good [93]. It is very early maturing and has stiff straw, with excellent good brackling resistance.

Hurler New feed variety, with very high treated [106] and untreated [94] yield, but low specific weight. It has short very stiff straw and average maturity.

Jensen Was a new variety in 2022, but did not longer progress through the MBC testing system and is no longer listed. Its malting quality is as good as the controls but poor specific weight is poor. It has a high treated yield [104] and very good untreated yield [96]. This very short variety has moderate straw strength, but high resistance to brackling.

KWS Curtis A new malting variety but is no longer under MBC testing for malt distilling and brewing. It is high yielding [103], with very good untreated yield [93]. It has intermediate specific weight. Its straw is short and stiff, with low brackling risk. It is early maturing, and good resistance to Rhynchosporium.

KWS Nelis (KWS203748). Candidate malting variety with potential for brewing and distilling. High yield, with good untreated yield. Low lodging risk. Mediocre disease resistance.

KWS Sassy Fully approved by MBC for malt distilling use. It had 16% of the Scottish intake from harvest 2022. Treated yield is now below average [98], though untreated yield is holding up well [89]. It has good specific weight. In this taller variety, straw stiffness and brackling resistance are just below average. Maturity is about average.

KWS Premis(KWS18/3518). Candidate malting variety with potential for brewing. Not completed National Listing.

Laureate Fully approved by MBC for both brewing and malt distilling use. It continues to dominate the UK spring barley market, with 64% of the Scottish intake and 53% of the English market. Specific weight is below average. Treated [102] and untreated [94] yields remain competitive. Straw strength is just below average, but it has high resistance to brackling. Maturity is about average. Good resistance to Rhynchosporium.

LG Aquarius (LGBU19-4296-DA). Candidate malting variety with potential for brewing. Achieves best yield in East region, and slightly underperforms in the North. Stiff straw, Weakish for Rhynchosporium.

LG Diablo Fully approved by the MBC for both brewing and malt distilling use. It continues to grow its share of the spring barley market in Scotland, with 17% of intake. Has produced high treated yields in the North [102] and East regions, and untreated yield is good [92]. It has relatively stiff straw and high resistance to brackling. It has later than average maturity.

Nectar (NOS115.043-06). Candidate malting variety with potential for brewing. Very high yields in all regions. Low specific weight. Poorish Rhynchosporium resistance.

NOS Gambit(NOS114.299-14). Candidate malting variety with potential for brewing. High UK yield, but underperforms in North region. Poorish Rhynchosporium resistance.

NOS Munro (NOS115.165-07). Candidate malting variety with potential for distilling. High UK yield, slightly underperforms in North region. Mediocre for disease resistance.

Olsen (SJ203517). Candidate malting variety with potential for brewing and distilling. Intermediate yield. Mediocre disease resistance.

RGT Celest (RP19033). Candidate malting variety with potential for brewing. High yielding. Average agronomic features.

RGT Eclipse(RP20025). Candidate malting variety with potential for brewing. Intermediate yield. Early maturing.

RGT Planet Fully approved by the MBC for brewing. Although becoming outclassed on agronomic yield [99] it retained a significant of the English malting intake from harvest 2022 [35%]. It has been a consistent performer on farm, with popularity as a feed variety. It has early maturity, relatively stiff straw and high resistance to brackling.

Rocker (SC70494X). Candidate malting variety with potential for brewing. Intermediate yield. Mediocre untreated yield.

Skyway A high yielding brewing variety with MBC Full Approval. Has produced its best yields in the East and West regions. Has high yields in untreated trials [94]. Relatively stiff-strawed with intermediate resistance to brackling. Susceptible to brown rust, and good resistance to Rhynchosporium.

Sun King New malting variety with MBC Provisional Approval stage 1 for brewing. It has good yield [103] and specific weight. Maturity is average and it appears to have stiff straw with excellent brackling resistance. Poor resistance to Rhynchosporium.

SY Signet New malting variety with MBC Provisional Approval stage 1 for brewing. It has stiff straw and good resistance to brackling. Good specific weight. Poorish resistance to Rhynchosporium.

SY Tennyson New malting variety with MBC Provisional Approval stage 1 for malt distilling and brewing. It has very high yield, but low specific weight and poor resistance to Rhynchosporium.

Extra varieties: e.g. not-listed or no longer in trials

Cadiz A high-yielding feed variety recommended for the East and West regions but underperforms by 5-6% in the North. It is relatively stiff-strawed with high resistance to brackling. Limited data suggest it is susceptible to Rhynchosporium [5].

Fairway A high yielding feed variety, with a low specific weight. It is no longer list by AHDB. This early maturing variety had given high treated yields throughout the UK. It has relatively stiff straw with high resistance to brackling. Limited data suggest it is very susceptible to Rhynchosporium and brown rust.

Jensen Was a new variety in 2022, but did not longer progress through the MBC testing system and is no longer listed. Its malting quality is as good as the controls but poor specific weight is poor. It has a high treated yield [104] and very good untreated yield [96]. This very short variety has moderate straw strength, but high resistance to brackling.

Malvern Feed variety recommended for the West region where it yields best [106]. It is not so high yielding in the North region [102]. It has a low specific weight. Has very stiff-straw with high resistance to brackling. Although it has good treated yield [95] its resistance to Rhynchosporium is exceptionally poor.

Propino This long-established malting variety is no longer on the recommended list and was removed from the MBC Approved List in 2020/21. Treated yield is outclassed though specific weight is good, and early maturity was valued.

Prospect This feed variety yields best in the East region [103] but underperforms in the North [101]. It has intermediate specific weight. It has shortish straw and is relatively stiff, with excellent resistance to brackling. Intermediate resistance to brown rust, and good resistance to Rhynchosporium.

Spinner Was a new variety in 2022, but did not longer progress through the MBC testing system and is no longer listed. Its malting quality is not an improvement on the control varieties. Its North region treated yield [101] is below that in the West [106].

SY Bronte Was a new variety in 2022, but did not progress through the MBC testing system and is no longer listed.

SY Splendor This high yielding variety had potential for brewing but was removed from the MBC Approved List for harvest 2023 and is no longer listed. It has produced good treated yields [102] throughout the UK. It has relatively stiff straw with high resistance to brackling. It is very susceptible to brown rust. Limited data suggest it is susceptible to Rhynchosporium.

SY Tungsten This high yielding variety with potential for brewing and malt distilling was removed from the MBC Approved List for harvest 2023 and is no longer listed. Before choosing, check any market interest. Has given high treated yields [104]. It has relatively stiff straw with high resistance to brackling. It is susceptible to brown rust. It is very susceptible to Rhynchosporium.

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Further details:

The full data sets collected are available on the AHDB Cereals & Oilseeds website here, <http://cereals.ahdb.org.uk/varieties>

Cereal varieties of most value to growers in Scotland are highlighted in the SRUC Scottish List tables here, <https://www.sruc.ac.uk/recommendedcereals>



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