

Cereals



Recommended Varieties for Northern Ireland 2013



Department of
**Agriculture and
Rural Development**

www.dardni.gov.uk



This booklet provides information on cereal varieties currently recommended by the Department of Agriculture and Rural Development (DARD) for use in Northern Ireland.

The Agri-Food and Biosciences Institute at the Plant Testing Station, AFBI Crossnacreevy, conducts trials on behalf of DARD and the HGCA. The recommendations in this booklet are partly based on data collected within the Home Grown Cereal Authority (HGCA) Recommended List trialling system. Full data collected from HGCA trials and the HGCA Recommended Lists are available at www.hgca.com. Information on recommended varieties and other varieties currently in trial in Northern Ireland is also available at www.afbini.gov.uk.

The recommendations are reviewed and published annually.

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Recommended Cereal Varieties 2013

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Introduction

This booklet is a comprehensive guide to cereal varieties best suited for use within Northern Ireland. It is based on trials carried out by the Agri-Food and Biosciences Institute on behalf of DARD as part of the HGCA Recommended List trialling system. The booklet complements information provided on varieties included in the HGCA Recommended Lists. The DARD Recommended List is available at www.afbini.gov.uk.

Spring barley and spring oat varieties are considered for provisional recommendation after two years of National List testing and one year of Recommended List testing. They generally remain provisionally recommended for two years before being eligible for recommendation for general use. Thus every spring variety is tested for at least five years before considering it for full general recommendation.

Winter barley, winter wheat and winter oat varieties are in Recommended List trials for two years prior to being provisionally recommended. They too remain provisionally recommended for two years before being eligible for full recommendation. Thus, every winter variety is tested for at least four years before considering it for full general recommendation.

Provisionally recommended varieties are reviewed each year. If after their first year of provisional recommendation they are considered unsuitable, they are removed from the list. If they remain provisionally recommended for two or more years before being found unsuitable, they are usually placed in the outclassed category for a year before removing them from the list. If seed of any variety, regardless of category, becomes unavailable it is removed directly from the list.

This booklet is a local publication and directs growers towards varieties of greatest value to Northern Ireland, including only those HGCA recommended varieties most suitable for use in Northern Ireland. Spring barley and oat trials conducted in Northern Ireland also include some varieties from the Republic of Ireland that may be suited to Northern Ireland. The same consideration is given to these varieties, for local use, as those that pass through the UK system.

Varieties that are of interest locally that are not recommended are described after the recommended varieties. These are followed by descriptions of UK listed varieties that are excluded from the tables because they are less suitable for use in Northern Ireland.

Varieties are classified as follows:

- G** Varieties **fully recommended for general use**
- S** Varieties **fully recommended for special use**; clarification of which is given in the notes
- P** Varieties **provisionally recommended** and of which seed may be in short supply
- PS** Varieties which are **provisionally recommended for special use**; clarification of which is given in the notes. Seed of these varieties may be in short supply
- O** Varieties **becoming outclassed**

Trial Sites

Trials are conducted on varieties of all crops at AFBI Crossnacreevy with further trials of the major crops in the main cereal growing regions of Northern Ireland. At Hillsborough and Limavady there were additional winter wheat and winter barley trials, with a further winter barley trial at Downpatrick. Additional spring barley trials are conducted at Ballywalter, Strabane and Coleraine.

Characteristics

Yield

Yields of all varieties are expressed in the tables as percentages of the control. For all crops the control is calculated as the mean (average) fungicide-treated yield of the control varieties that are selected on a UK basis. Untreated yields are also expressed as a percentage of the mean of the fungicide-treated controls. Both fungicide-treated and untreated yields represent the mean performance of the varieties in trials during the five-year period 2008 - 2012.

Treated yields

Fungicide programmes are applied to treated trials to keep disease incidences below 5% infection of the leaf area. Treated yields indicate the potential yield of the varieties in the absence of disease. Plant growth regulators are also applied to treated trials of winter wheat, winter barley and winter oats where the risk of lodging is high.

Untreated yields

In untreated trials, where no fungicide treatment is applied, natural infections by a number of diseases may occur at various stages during the growing season. Varieties have differing levels of infection because they carry different types and levels of resistance to each of the diseases. Infection by disease reduces grain yield potential. Differences in yield between varieties in untreated trials are normally greater than in treated trials. Comments on untreated yields in variety descriptions refer to their performance relative to other varieties when untreated.

Use of information on yields from treated and untreated trials

Growers have different approaches to the use of fungicides. Some prefer a programme that protects completely against all disease infection. Yields in the treated trials indicate which varieties are likely

to give the best performances with this approach. Others prefer to use chemicals as and when disease occurs. Yields in the untreated trials indicate which varieties are likely to need fewer applications of fungicide in order to produce high yields and, conversely, where risks are greater if less-than-complete control of disease is achieved.

Grain quality

Information presented in the tables on specific weight and 1000 grain weight of spring barley, winter barley, winter wheat, spring oat and winter oat varieties and on kernel content of spring and winter oat varieties, is from the fungicide treated trials in Northern Ireland. Specific weight, measured in kilograms per hectolitre (kg/hl), is an important quality indicator when selling grain. If the specific weight of a crop is low, it may not reach trading contract requirements. For winter and spring oats, specific weight is determined on pre-cleaned grain. Although individual crops will vary, the information on specific weight, grain weight and kernel content, presented in this booklet, shows accurate relative values for the varieties.

Oat screenings can be important when selling grain to the quality market. Oat varieties are screened over a 2mm sieve for 15 seconds and the proportion passing through is recorded as a percentage. These fluctuate greatly from season to season. Empty husks (that is grains that fail to develop kernels) and free kernels may be present in harvested oats and are undesirable in milling grain. Details are provided in the variety descriptions on the tendency to produce free kernels and/or empty husks.

Straw characteristics

Straw length is based on data from untreated Northern Ireland trials (except for winter oats where data from the fungicide-treated, but without plant growth regulator, trials are used). Straw length is expressed in centimetres relative to **Quench** for spring barley, **Granery** for spring wheat, **Firth** for spring oats, **Saffron** for winter barley, **JB Diego** for winter wheat and **Dalguise** for winter oats.

Straw yields are determined from one spring barley and one winter barley trial each year. For spring barley, straw yields are from fungicide-treated plots and are described as low (less than 3.0 t/ha), intermediate (3.0 to 3.25 t/ha), high (3.25 to 3.5 t/ha) or very high (greater than 3.5 t/ha). For winter barley, straw yields are from the fungicide-treated plots in trials that also received a plant growth regulator and are described as low (less than 3.75 t/ha), intermediate (3.75 to 4.5 t/ha) or high (greater than 4.5 t/ha).

Standing power is calculated using both lodging and leaning data and expressed on a **1 to 9** scale, where a high figure indicates good standing power. Straw characteristics, such as brackling (in oats and barley) and necking (in barley only) are referred to in the variety descriptions. Brackling is buckling in the lower part of the stem and necking occurs directly below the ear. Brackling need not be damaging unless the ears lie on the soil surface. Necking can be more serious if a clean break occurs leading to ear loss in bad weather. These straw characteristics are determined from untreated trial data.

Disease

Resistance of varieties to disease is expressed on a **1 to 9** scale in the tables. A high figure means that the variety is very resistant to the disease whereas a low figure means that the variety is very susceptible. Resistance ratings to disease are drawn from naturally occurring field infections in trial plots in Northern Ireland to which no fungicides were applied. Yellow rust scores for winter and spring wheat, and mildew scores for spring barley are taken from the HGCA Recommended List 2013 due to low disease incidences in Northern Ireland trials.

Disease incidences on cereal crops in Northern Ireland tend to be more variable from year to year and from crop to crop than in Great Britain. There can also be a high degree of variability between trial sites. In Northern Ireland, winter 2011-2012 was relatively mild with mean temperatures for December through to March being higher than the long-term average. March was a particularly warm month and was over 3°C higher than the 1971-2000 average. Summer was cooler and wetter than average with June having 235 % of the rain falling compared to the 1971-2000 average. The amount of sunshine hours in June and July

was only 73% of the long-term average resulting in less than optimum grain filling. Rainfall continued to be higher than average throughout late summer to October making for very challenging harvest conditions and loss of grain quality. *Fusarium* ear blight thrived in the wet weather and was widespread in wheat (both treated and untreated) and was common in spring barley crops too.

Winter barley

Mildew was the first disease to appear in the winter barley trials. At Hillsborough significant levels of mildew were recorded as early as mid-May reaching a maximum of 26% in KWS Glacier by early July. Infections at the other three sites were slower to develop and generally reached levels of around 10% in susceptible varieties, including Saffron, KWS Cassia and KWS Glacier.

Rhynchosporium infections were lower in 2012 than in 2011. At Hillsborough, infection levels did not exceed 5%. At Downpatrick and Crossnacreevy, many varieties had no *Rhynchosporium*, with maximum levels of infection of 5 and 7%, respectively. At Limavady, *Rhynchosporium* appeared earlier and reached significantly higher levels, with 3% being recorded in KWS Cassia as early as the end of May, rising to 15% in this variety by the beginning of July. Saffron and KWS Glacier also had significant levels of infection with 12 and 5%, respectively.

Ramularia was the most widespread disease in terms of the number of varieties affected and the levels of infection. Visual symptoms of this disease become apparent post-flowering and all varieties were affected at all sites, with maximum levels of infection reaching about 10% in many varieties. At Limavady, maximum infections of 28% were recorded in Talisman and at AFBI Crossnacreevy, several varieties, including Sequel, Suzuka and Soloman, had 20%.

Winter wheat

Some mildew was recorded on winter wheat in 2012, levels being highest at Hillsborough where trace amounts were detected in early May rising to as high as 20% in the new variety, Leeds, by early July. Monterey and JB Diego both had 10% infection. At Limavady and AFBI Crossnacreevy, only trace amounts were recorded in a few susceptible varieties.

Septoria tritici was again a major disease in untreated plots in all three trials with maximum levels of infection reaching around 20% in the susceptible varieties Ketchum and KWS Santiago. Most varieties were infected to some degree with Alchemy, Horatio, JB Diego and Grafton having about 10% infection. In the 2012 treated trials significant levels of *Septoria tritici* were recorded in Ketchum, Chilton and Cocoon.

Yellow rust was not recorded at Hillsborough but was recorded in susceptible varieties in untreated plots at Limavady and AFBI Crossnacreevy trials. In these two trials, yellow rust began to appear at the beginning of June reaching nearly 80% in Torch by early July, although many varieties, including JB Diego, Monterey, Panorama and Grafton, had no yellow rust. Yellow rust was also recorded at significant levels in some fungicide treated plots, including Ketchum at AFBI Crossnacreevy and Limavady (23%) and Cocoon, Torch and Chilton at Limavady.

Fusarium ear blight was a significant disease in untreated winter wheat in 2012. All varieties in all three fungicide untreated trials (with the exception of KWS Solo at AFBI Crossnacreevy) were infected to some degree. At AFBI Crossnacreevy, maximum infections of 27% were observed in Torch and Oakley. At Hillsborough and Limavady, Alchemy had least *Fusarium* with 5% and 11%, respectively. The worst affected varieties at these two sites were Cordiale (40% at Hillsborough) and Torch (71% at Limavady). The fungicide treated trials were also severely affected, with all varieties having infection. The lowest levels were in Cocoon and Panorama, less than 5%, and the highest greater than 30% in the varieties KWS Sterling, KWS Santiago, Torch and Grafton.

Winter oats

There were significant levels of both mildew and crown rust in the winter oat trial in 2012. Mildew started to build in late May with maximum scores of 20% in Grafton and Dalguise by mid-June. Crown rust was later to develop but by the end of July infections of 25% were observed in Fusion and Balado. Only Mason, a new naked variety, had less than 1% infection.

Spring barley

Mildew was the first disease to appear in the spring barley trials with low levels in plots of Optic by mid-late June. By the end of July there was significant mildew on several varieties, with a maximum of 50% on Optic and up to 7% on NFC Tipple, Doyen, Propino and Chronicle. Many varieties had no mildew. At Newtownards mildew was not recorded at all.

Rhynchosporium started to appear in susceptible varieties from early July onwards. The maximum infection of 17% was recorded at Coleraine in Waggon. At other sites many varieties had no *Rhynchosporium*, infections being generally <5%.

Ramularia infections were generally <1% with maximum levels of 10% in Dandy and Riviera at AFBI Crossnacreevy. Brown rust was recorded at the end of July in all varieties in Strabane and ranged from 15% in KWS Orphelia to 0.1% in Odyssey. This disease is not commonly found in Northern Ireland but the very wet conditions throughout June to September may have provided the 100% humidity required for sporulation and spore germination.

The prolonged wet summer provided ideal conditions for *Fusarium* ear blight. All varieties in the fungicide treated trial at Crossnacreevy had at least 1% infection, with Overture and Doyen having more than 20% infection.

Spring wheat

Spring wheat tends to get much less disease than other crops. The two main diseases that do appear are mildew and *Septoria tritici*. Mildew has been recorded in 4 years of the 2008-2012 five year period. Belvoir was generally the worst affected and had up to 7% in 2012. Most other varieties had less than 1%. Belvoir was also most severely infected by *Septoria tritici* with a maximum of 18% in 2012, with all varieties having some infection. Yellow rust was recorded in Granary in trace amounts in 2008, but has not been observed since then.

Spring oats

In spring oats, the three most common diseases are mildew, crown rust and *Septoria avenae*. Levels of mildew were slow to build-up in 2012 with many varieties having no infection. Maximum levels of 25% were recorded in the very susceptible Atego and the new variety Gabby.

Crown rust was also recorded in 2012 with a maximum of 10% in Firth. Atego and Husky both had 8% whilst Rozmar and SW Argyle had no crown rust. For the second year running, no *Septoria avenae* was found in the spring oat trial.

Maturity

Spring barley varieties differ in maturity by approximately two weeks from earliest to very latest. There are only minor differences in maturity amongst spring oat, winter barley, winter wheat and winter oat varieties. Maturity of varieties is included in the tables for all crops as early (E), intermediate (I) or late (L) to ripen.

Sprouting

Germination of grain in the standing crop is extremely detrimental to the quality of the harvested grain. Whilst it can occur in all crops, it is most commonly a problem of wheat. Growers in the wetter areas of Northern Ireland have always taken account of this problem when selecting varieties. The tendency to sprout is indicated in individual variety descriptions if it is a particular strength or weakness of that variety.

Spring Barley

SY Taberna has been promoted to fully recommended for general use and joins **Concerto**, **Publican** and **Quench**. **Westminster** remains recommended but for special use because it offers exceptional straw yields and disease resistance and has very good grain quality although its yields are low in comparison with newer varieties. **Overture**, **Odyssey** and **Chronicle** continue as provisional recommendations for a second year. **Waggon** and **Doyen** have become outclassed.

Variety descriptions are in alphabetical order. Information is also provided on the year each variety was first listed in Northern Ireland, the name of its UK agent and its end-use group.

Chronicle

(Provisionally recommended)

First listed in 2012; Limagrain; malting variety;

- high treated and untreated yields;
- average grain with low specific weight
- medium length straw with intermediate straw yields;
- quite good standing power with average resistance to brackling and quite good resistance to necking;
- quite good resistance to *Rhynchosporium* and *Ramularia* and good resistance to mildew;
- intermediate to ripen.

Concerto

(Recommended for general use)

First listed in 2009; Limagrain; malting variety;

- very high treated and moderate untreated yields;
- large grain with average specific weight;
- medium length straw with high straw yields;
- average standing power with quite poor resistance to brackling but good resistance to necking;
- quite poor resistance to *Rhynchosporium*, good resistance to mildew and quite good resistance to *Ramularia*;
- intermediate to ripen.

Doyen

(Becoming
outclassed)

First listed in 2004; Syngenta; feed variety;

- moderate treated and low untreated yields;
- very large grain with average specific weight;
- short straw with intermediate straw yields;
- quite good standing power with quite poor resistance to brackling and good resistance to necking;
- average resistance to *Rhynchosporium* and quite good resistance to *Ramularia* and mildew;
- intermediate to ripen.

Odyssey

(Provisionally
recommended)

First listed in 2012; Limagrain; malting variety;

- very high treated and high untreated yields;
- average sized grain with low specific weight;
- short straw with intermediate straw yields;
- average standing power with average resistance to brackling and good resistance to necking;
- quite good resistance to *Rhynchosporium*, very good resistance to mildew and average resistance to *Ramularia*;
- intermediate to ripen.

Overture

(Provisionally
recommended)

First listed in 2012; Limagrain; malting variety;

- very high treated and untreated yields;
- large grain with low specific weight;
- medium length straw with high straw yields;
- quite good standing power with quite good resistance to brackling and average resistance to necking;
- good resistance to *Rhynchosporium* and mildew and quite good resistance to *Ramularia*;
- intermediate to ripen.

Publican

(Recommended
for general use)

First listed in 2009; Syngenta; feed variety;

- high treated and untreated yields;
- large grain with average specific weight;
- medium length straw with high straw yields;
- quite good standing power with quite good resistance to necking and quite poor resistance to brackling;
- very good resistance to mildew, quite good resistance to *Rhynchosporium* and average resistance to *Ramularia*;
- late to ripen.

Quench

(Recommended
for general use)

First listed in 2007; Syngenta; malting variety;

- high treated and moderate untreated yields;
- small grain with low specific weight;
- short straw with very high straw yields;
- quite good standing power with quite good resistance to brackling and necking;
- very good resistance to mildew, quite good resistance to *Rhynchosporium* and average resistance to *Ramularia*;
- intermediate to ripen.

SY Taberna

(Recommended
for general use)

First listed in 2011; Syngenta; malting variety;

- high treated and very high untreated yields;
- large grain with average specific weight;
- medium length straw with very high straw yields;
- quite good standing power with quite good resistance to necking and average resistance to brackling;
- quite good resistance to *Rhynchosporium* and *Ramularia* and good resistance to mildew;
- early to ripen.

Waggon

(Becoming
outclassed)

First listed in 2008; Syngenta; feed variety;

- moderate treated and untreated yields;
- very large grain with low specific weight;
- short straw with intermediate straw yields;
- quite good standing power with quite good resistance to brackling and average resistance to necking;
- very good resistance to mildew, quite good resistance to *Ramularia* but **very poor resistance to *Rhynchosporium* and requires careful management with regard to *Rhynchosporium* control;**
- intermediate to ripen.

Westminster

(Recommended
for special use)

First listed in 2005; Limagrain; feed variety;

- moderate treated and high untreated yields;
- large grain with average specific weight;
- long straw giving very high straw yields;
- quite good standing power but quite poor resistance to brackling and poor resistance to necking;
- very good mildew resistance, good resistance to *Rhynchosporium* and quite good resistance to *Ramularia*;
- tends to ripen late.

Varieties that are not recommended but are of local interest and that are entered into the Northern Ireland Seed Certification Scheme are listed below. Figures in brackets are treated and untreated yields, respectively. UK agents' names are in italics.

Dandy gives very low treated and untreated yields (**90, 76**). It has very large grain with high specific weight. It has very good resistance to mildew, good resistance to *Rhynchosporium* and average resistance to *Ramularia*. It has long straw with intermediate straw yields, quite good standing power and good resistance to necking, but poor resistance to brackling. It is intermediate to ripen. (*RAGT*)

Garner is a feed variety that gives high yields (**102, 90**). It has very large grain with low specific weight. It has quite good resistance to *Rhynchosporium*, average resistance to *Ramularia* and very good resistance to mildew. It has medium length straw with quite good standing power and average resistance to necking and brackling. It gives high straw yields and is intermediate to ripen. (*Syngenta*)

Riviera gives moderate treated and very low untreated yields (**96, 78**). It has large grain with high specific weight. It has quite poor standing power with quite poor resistance to brackling and very poor resistance to necking. It gives very high straw yields. It has quite poor resistance to *Rhynchosporium*, very good resistance to mildew and average resistance to *Ramularia*. It is intermediate to ripen. (*RAGT*)

Propino gives high treated and moderate untreated yields (**102, 86**). It has very large grain with low specific weight. It has quite good standing power, average resistance to necking and brackling and gives very high straw yields. It has quite good resistance to *Rhynchosporium*, good resistance to mildew, average resistance to net blotch and quite poor resistance to *Ramularia*. It is late to ripen. (*Syngenta*)

Varieties on the HGCA UK List that have performed less well in Northern Ireland or are still being evaluated for Northern Ireland are listed below. Newer varieties will continue in trials in Northern Ireland. Figures in brackets are treated and untreated yields, respectively. UK agents' names are in italics.

Crooner is a new feed variety that gives high treated and untreated yields (**101, 90**). It has average specific weight and grain size. It has very short straw with average standing power and good resistance to both necking and brackling with intermediate straw yields. It has quite good resistance to *Rhynchosporium*, good resistance to mildew and average resistance to *Ramularia*. It is late to ripen. (*Agrii*)

Glassel is a new malting variety that gives high treated and moderate untreated yields (**102, 86**). It has small grain with low specific weight. It has quite poor resistance to *Rhynchosporium*, average resistance to *Ramularia* and very good resistance to mildew. It has short straw with average standing power, average resistance to necking and good resistance to brackling. It has intermediate straw yields and is intermediate to ripen. (*Syngenta*)

Kelim is a new feed variety that gives high treated and moderate untreated yields (**105, 83**). It has large grain with average specific weight. It has average resistance to *Rhynchosporium*, quite good resistance to *Ramularia* and very good resistance to mildew. Its medium length straw has quite good standing power and average resistance to necking and brackling. It has very high straw yields and is late to ripen. (*Syngenta*)

KWS Orphelia is a new feed variety that gives very high treated and high untreated yields (**106, 90**). It has average-sized grain and low specific weight. It has quite good resistance to *Rhynchosporium*, good resistance to mildew and quite poor resistance to *Ramularia*. It has very short straw with quite good standing power, quite good resistance to necking but poor resistance to brackling. It gives low straw yields and is late to ripen. (*KWS*)

Montoya is a new feed variety that gives high yields (**101, 87**). It has large grain with low specific weight. It has quite good resistance to *Rhynchosporium* and *Ramularia* and very good mildew resistance. It has short straw with quite good standing power, average resistance to necking and brackling and intermediate straw yields. It is early to ripen. (*Saaten Union*)

Moonshine is a malting variety that has moderate yields (**97, 85**). It has average sized grain with low specific weight. It has good standing power with quite poor resistance to necking, average resistance to brackling and gives intermediate straw yields. It has poor resistance to *Rhynchosporium* and good resistance to mildew. It is intermediate to ripen. (*RAGT*)

Natasia is a new feed variety that gives high yields (**105, 90**). It has very large grain with low specific weight. It has quite good resistance to *Rhynchosporium* and *Ramularia* and very good resistance to mildew. It has short straw with average standing power, quite good resistance to necking but poor resistance to brackling. It gives high straw yields and is intermediate to ripen. (*KWS*)

NFC Tipple is a malting variety that has moderate treated and low untreated yields (**96, 80**). It has large grain with average specific weight. It has very short straw with quite good standing power, average resistance to brackling and quite good resistance to necking and low straw yields. It has poor resistance to *Rhynchosporium* and is intermediate to ripen. (*Syngenta*)

Optic is a malting variety that gives low treated and very low untreated yields (**94, 74**). It has average sized grain with average specific weight. It has quite good standing power but very poor resistance to brackling with intermediate straw yields. It has poor disease resistance. (*Syngenta*)

Rhynchostar is a new feed variety that gives moderate yields (**96, 84**). It has large grain with low specific weight. It has short straw with quite good standing power, quite good resistance to necking, average resistance to brackling and high straw yields. It has quite good resistance to *Rhynchosporium*, average resistance to *Ramularia* and very good resistance to mildew. It is intermediate to ripen. (*Agrii*)

Sanette is a new malting variety that gives very high treated and untreated yields (**109, 97**). It has large grain with low specific weight. It has quite good resistance to *Rhynchosporium* and *Ramularia* and very good mildew resistance. Its straw is short with average standing power, average resistance to brackling and quite good resistance to necking. It gives intermediate straw yields and is intermediate to ripen. (*Syngenta*)

Shuffle gives high treated and moderate untreated yields (**101, 86**). It has very large grain with low specific weight. It has average resistance to *Rhynchosporium*, quite good resistance to *Ramularia* and very good mildew resistance. It has medium length straw with good standing power, quite poor resistance to brackling and average resistance to necking. It gives high straw yields and is intermediate to ripen. (*Syngenta*)

Tesla gives high treated and very high untreated yields (**105, 90**). It has very large grain with very low specific weight. It has quite good resistance to *Rhynchosporium* and *Ramularia* and good resistance to mildew. It has medium length straw with intermediate straw yields. It is intermediate to ripen. (*Limagrain*)

Oxbridge and **Summit** are no longer on the HGCA Recommended List.

Spring Wheat

The information on the spring wheat varieties is for **descriptive purposes only**. Recommendation of varieties has not been made for 2013. Below are brief descriptions of the varieties listed with the recommendation status on the HGCA and DAFM recommended lists and the name of the agents in brackets.

Ashby gives high treated and moderate untreated yields (**103, 82**). It has large grain with average specific weight. It has short straw with average standing power. It has average resistance to both *Septoria tritici* and mildew. It is late to ripen. Fully recommended by the HGCA. (KWS)

Belvoir gives low yields (**97, 73**). It has small grain, low specific weight and short straw with quite good standing power. It has quite poor disease resistance and is late to ripen. Fully recommended by the HGCA. (KWS)

Granary gives very high yields (**112, 95**). It has large grain with high specific weight. It has medium length straw with average standing power. It has quite good disease resistance and is late to ripen. Fully recommended by the HGCA and the DAFM. (KWS)

KWS Willow gives high treated and moderate untreated yields (**104, 80**). It has average grain quality, average standing power and average disease resistance. It is intermediate to ripen. Fully recommended by the HGCA. (KWS)

Mulika gives low treated and high untreated yields (**99, 84**). It has small grain with average specific weight. It has medium length straw with average standing power and average disease resistance. It is intermediate to ripen. Fully recommended by the HGCA. (Senova)

Paragon gives very low treated and moderate untreated yields (**94, 78**). It has small grain with average specific weight. It has short straw with average standing power and average disease resistance. It is intermediate to ripen. Fully recommended by the HGCA. (*RAGT*)

Raffles gives very high treated and high untreated yields (**106, 84**). It has large grain with average specific weight, medium length straw with average standing power and quite good resistance to *Septoria tritici*. It is late to ripen. It is fully recommended by the DAFM. (*KWS; Goldcrop*)

Sparrow gives moderate treated and high untreated yields (**102, 84**). It has average size grain with high specific weight, medium length straw with average standing power and quite good disease resistance. It is late to ripen. Fully recommended by the DAFM. (*KWS; Goldcrop*)

Trappe gives high treated and moderate untreated yields (**104, 80**). It has small grain with high specific weight. It has long straw with average standing power and average resistance to *Septoria*. It is late to ripen. It is fully recommended by the DAFM. (*KWS; Seed Technology*)

Tybalt gives high treated and very high untreated yields (**104, 89**). It has average size grain with low specific weight. It has short straw with average standing power and average resistance to *Septoria*. It is early to ripen. It is fully recommended by the HGCA. (*Limagrain*)

Zircon is a white-grained wheat that gives moderate yields (**101, 80**). It has average grain quality, medium length straw with average standing power and average disease resistance. It is intermediate to ripen. (*KWS*)

Spring oats

Canyon, Firth and **Husky** remain fully recommended. **Rozmar** has become outclassed and **Ascot** has been removed from the list due to lack of seed.

Variety descriptions are in alphabetical order. Information is also provided on the year each variety was first listed in Northern Ireland and the name of its UK agent.

Canyon

*(Recommended
for general use)*

First listed in 2010; Saaten Union;

- high treated and very high untreated yields;
- very large grain with average specific weight and average kernel content;
- very low screenings and little tendency to produce free kernels;
- very long straw with good standing power but poor resistance to brackling;
- good resistance to mildew and quite good resistance to crown rust;
- early to ripen;
- potential for the quality market yet to be established.

Firth

*(Recommended
for general use)*

First listed in 2000; KWS;

- high treated and untreated yields;
- large grain with average specific weight and very high kernel content;
- low screenings and some tendency to produce free kernels;
- long straw with quite good standing power and very good resistance to brackling;
- quite good resistance to mildew and crown rust;
- intermediate to ripen.

Husky

*(Recommended
for general use)*

First listed in 2008; Saaten Union;

- high treated and untreated yields;
- medium sized grain with high specific weight and high kernel content;
- low screenings and little tendency to produce free kernels;
- long straw with good standing power but poor resistance to brackling;
- quite good resistance to mildew but quite poor resistance to crown rust;
- early to ripen.

Rozmar

*(Becoming
outclassed)*

First listed in 2010; Cope Seeds;

- moderate treated and high untreated yields;
- medium sized grain with very low specific weight and low kernel content;
- low screenings and little tendency to produce free kernels;
- very long straw with average standing power and very poor resistance to brackling;
- good resistance to crown rust but quite poor resistance to mildew;
- early to ripen;
- potential for the quality market yet to be established.

Spring Barley Recommended List 2013

	Yield*	Grain quality		Straw characteristics			Disease resistance			Ripening
		Specific weight (kg/hl)	1000 grain wt (g)	Length (cm)**	Standing power	Straw Yield	Rhyncho-sporium	Mildew	Ramularia	
G Concerto	106 86	61.8	42.7	+5	6	H	5	8	7	I
G SY Taberna	104 91	61.6	41.3	+5	7	VH	7	9	7	E
G Publican	103 88	61.4	41.7	+3	7	H	7	9	6	L
G Quench	102 86	59.9	39.3	0	7	VH	7	9	6	I
S Westminster¹	98 87	62.8	42.2	+8	7	VH	8	9	7	L
P Overture	110 92	60.4	42.4	+3	7	H	8	8	7	I
P Odyssey	107 88	58.9	40.7	0	6	I	7	9	6	I
P Chronicle	104 87	60.0	40.9	+2	7	I	7	8	7	I
O Waggon	100 83	60.2	43.3	0	7	I	3	9	7	I
O Doyen	100 81	61.8	43.3	0	7	I	6	7	7	I

* Yield as a % of the treated control varieties Optic, NFC Tipple, Quench, Concerto and Propino (average = 6.52 t/ha)

T = fungicide treated; U = no fungicide

** Straw length compared to Quench (72 cm)

Straw yield: VH = very high, H = high and I = Intermediate

Ripening: E = early, I = intermediate and L = late

¹ = Westminster is recommended for special use because it has exceptional straw yields and disease resistance and has very good grain quality although its yields are low in comparison with newer varieties.

Spring Wheat Descriptive List 2013

	Yield*		Grain quality		Straw characteristics		Disease resistance			Ripening
	T	U	Specific weight (kg/hl)	1000 grain wt (g)	Length (cm)**	Standing power	Septoria	Mildew ^{\$}	Yellow Rust ^{\$}	
Granary	112	95	71.3	42.1	-2	6	7	6	6	L
Raffles	106	84	70.4	42.1	-6	6	6	6	8	L
Tybalt	104	89	66.9	40.0	-5	6	6	7	7	E
Trappe	104	80	71.2	35.2	+5	6	6	7	6	-
KWS Willow	104	80	68.7	38.1	-1	6	6	7	6	I
Ashby	103	82	69.2	41.6	-6	6	6	6	9	L
Sparrow	102	84	71.1	38.2	-1	6	7	7	7	L
Zircon	101	80	69.2	39.6	-3	6	6	7	9	I
Mulika	99	84	70.1	37.2	-1	6	6	7	9	I
Belvoir	97	73	67.6	37.4	-4	7	5	5	9	L
Paragon	94	78	71.7	37.4	-7	6	6	7	9	I

* Yield as a % of the treated control varieties Paragon, Ashby and Tybalt (average = 7.75 t/ha)

T = fungicide treated; U = no fungicide

** Straw length compared to Granary (87 cm);

\$ = HGCA UK data;

Ripening: E = early, I = intermediate and L = late;

- = no data available

Spring Oat Recommended List 2013

	Yield*		Grain quality				Straw characteristics		Disease resistance		Ripening
	T	U	Specific weight (kg/hl)	1000 grain wt (g)	Kernel content (%)	Sieve fraction (%<2mm)	Length (cm)**	Standing power	Mildew	Crown rust	
G Canyon	102	98	50.5	40.8	76.6	1.6	+8	8	8	7	E
G Firth	100	89	50.4	36.5	78.5	4.2	0	7	7	7	I
G Husky	99	89	50.8	34.8	77.7	4.3	-1	8	7	5	E
O Rozmar	96	90	48.7	34.9	76.4	3.9	+6	6	5	8	E

* Yield as a % of the treated control varieties Ascot, Firth and Husky (average = 6.72 t/ha).

T = fungicide treated; U = no fungicide

** Straw length compared to Firth (106 cm)

Ripening: E = early and I = intermediate

Winter Barley Recommended List 2013

	Yield*	Grain quality		Straw characteristics			Disease resistance			Ripening
		Specific weight (kg/hl)	1000 grain wt (g)	Length (cm)**	Standing power	Straw Yield	Rhyncho-sporium	Mildew	Ramularia	
2-row										
G KWS Cassia	106	66.8	51.6	+2	8	I	4	4	7	I
G Saffron	102	66.4	51.4	0	7	I	4	3	7	I
S Retriever ¹	101	62.7	50.2	-1	6	L	5	5	5	I
P California	105	65.1	52.9	+3	9	I	7	6	8	I
P Florentine	103	64.3	51.6	+3	9	I	8	6	6	I
O Suzuka	97	65.3	50.8	+2	8	I	7	5	7	E
6-row										
PS KWS Meridian	106	61.1	47.1	+15	7	I	8	7	7	E
6-row hybrid										
S Volume ²	108	63.6	42.9	+14	5	L	8	6	8	I

* Yield as a % of the treated control varieties Pearl, Sequel, Flagon, Volume and KWS Cassia (average = 9.38 t/ha)

T = fungicide treated; U = no fungicide

** Straw length compared to Saffron (99 cm)

Straw yield: I = Intermediate and L = low

Ripening: E = early and I = intermediate

1 = Retriever recommended for special use because of its below average standing power

2 = Volume is recommended for special use because it is a 6-row hybrid variety

Winter Wheat Recommended List 2013

	Yield*		Grain quality		Straw characteristics		Disease resistance				Ripening
	T	U	Specific weight (kg/ha)	1000 grain wt (g)	Length (cm)**	Standing power	Septoria	Mildew [§]	Yellow rust [†]	Fusarium ear blight [‡]	
G JB-Diego[#]	103	74	71.9	44.5	0	7	6	5	8	6	E
G Panorama	102	71	72.4	44.5	0	8	7	7	8	7	I
G Grafton[#]	102	72	72.5	45.1	-11	9	6	7	6	5	E
G Alchemy	100	74	73.4	42.2	+3	6	7	7	6	7	L
P Monterey	106	76	73.5	42.2	+1	6	8	6	6	6	I
P Horatio	105	73	72.4	48.2	+2	7	7	7	6	6	L
P Beluga	104	69	71.3	49.6	-8	9	6	4	5	6	E
P Denman	102	73	71.4	39.1	-6	6	7	5	4	6	L
O Einstein[#]	101	70	72.0	45.5	-4	5	5	6	6	6	E

* Yield as a % of the treated control varieties Gallant, Solstice, Invicta, Scout, Oakley and JB Diego (average = 10.04 t/ha)

T = fungicide treated; U = no fungicide

** Straw length compared to Robigus (89 cm)

‡ = HGCA UK data;

Ripening: E = early, I = intermediate and L = late

= JB Diego, Grafton and Einstein performed well in HGCA second wheat trials in GB

Winter Oat Recommended List 2013

	Yield*		Grain quality				Straw characteristics		Disease resistance		Ripening
	T	U	Specific weight (kg/hl)	1000 grain wt (g)	Kernel content (%)	Sieve fraction (%<2mm)	Length (cm)**	Standing power	Mildew	Crown rust	
G Gerald	100	83	51.4	34.5	76.0	4.3	+1	6	5	6	I
G Dalguise	101	79	52.5	38.0	77.5	3.1	0	5	4	4	I
G Mascani	99	92	52.5	41.9	78.8	2.2	+3	7	7	8	I
S Balado¹	107	84	47.3	38.3	74.5	3.0	-32	9	7	4	E

* Yield as a % of the treated control varieties Dalguise, Gerald and Mascani (average = 7.80 t/ha).

T = fungicide treated; U = no fungicide

** Straw length compared to Dalguise (123 cm)

Ripening: I = intermediate and E = early

1 = Balado has a specific weight significantly below 50 kg/hl and is only suitable as a feed oat

Varieties on the HGCA UK List that have performed less well in Northern Ireland are listed below. Newer varieties will continue in trials in Northern Ireland. Figures in brackets are treated and untreated yields, respectively. UK agents' names are in italics.

Ascot gives high yields (**102, 89**) and has medium sized grain with low specific weight, very high kernel content and low screenings. It has very long straw with quite good standing power and good resistance to brackling. It has quite poor resistance to mildew and quite good resistance to crown rust. It is intermediate to ripen. (*Limagrain*)

Atego gives moderate treated and very low untreated yields (**97, 74**). It has large grain with low specific weight and average kernel content. **It is very susceptible to mildew** and is early to ripen. (*Cope Seeds*)

SW Argyle gives high treated and moderate untreated yields (**100, 87**). It has very large grain with average specific weight and high kernel content. It has long straw with good standing power and average resistance to brackling. It has average resistance to mildew and is intermediate to ripen. (*Senova*)

Winter Barley

The 2-row **KWS Cassia** has been promoted and joins **Saffron** as fully recommended for general use. **Retriever** remains fully recommended for special use because it is at risk of lodging. **Florentine** enters its second year as a provisional recommendation and **California** is a new provisional recommendation for 2013. **Suzuka** has become outclassed. **KWS Meridian** is a new 6-row provisional recommendation and the 6-row hybrid **Volume** has been promoted to full recommendation for special use.

Variety descriptions are in alphabetical order. Information is also provided on the year each variety was first listed in Northern Ireland and the name of its UK agent.

Two-Row Types

California

(Provisionally recommended)

First listed in 2013; Limagrain; feed variety;

- high treated and very high untreated yields;
- very large grain with average specific weight;
- medium length straw with intermediate straw yields;
- very good standing power with good resistance to brackling and average resistance to necking;
- quite good resistance to *Rhynchosporium*, good resistance to *Ramularia* and average resistance to mildew;
- intermediate to ripen.

Florentine

(Provisionally recommended)

First listed in 2012; Senova; feed variety;

- high treated and very high untreated yields;
- very large grain with average specific weight;
- medium length straw giving intermediate straw yields;
- very good standing power with average resistance to brackling and good resistance to necking;
- good resistance to *Rhynchosporium*, and average resistance to *Ramularia* and mildew;
- intermediate to ripen.

KWS Cassia

(Recommended for general use)

First listed in 2011; KWS; feed variety;

- very high treated and high untreated yields;
- very large grain with high specific weight;
- medium length straw giving intermediate straw yields;
- good standing power with average resistance to brackling and good resistance to necking;
- poor resistance to *Rhynchosporium* and mildew and quite good resistance to *Ramularia*;
- intermediate to ripen.

Retriever

(Recommended for special use)

First listed in 2008; Limagrain; feed variety;

- high treated yields and moderate untreated yields;
- large grain with low specific weight;
- short straw with low straw yields;
- average standing power and **has the potential for significant lodging** with poor resistance to brackling;
- quite poor resistance to *Rhynchosporium*, *Ramularia* and mildew;
- intermediate to ripen.

Saffron

(Recommended
for general use)

First listed in 2007; KWS; feed variety;

- high treated and untreated yields;
- very large grain with high specific weight;
- short straw with intermediate straw yields;
- quite good standing power with good resistance to brackling and necking;
- poor resistance to *Rhynchosporium*, very poor resistance to mildew and quite good resistance to *Ramularia*;
- intermediate to ripen.

Suzuka

(Becoming
outclassed)

First listed in 2008; Syngenta; feed variety;

- moderate treated and high untreated yields;
- large grain with average specific weight;
- medium length straw with intermediate straw yields;
- good standing power with poor resistance to brackling and good resistance to necking;
- quite good resistance to *Rhynchosporium* and *Ramularia* and quite poor resistance to mildew;
- early to ripen.

Six-Row Types

KWS Meridian

(Provisionally
recommended)

First listed in 2013; KWS; feed variety;

- very high treated and high untreated yields;
- average size grain with very low specific weight;
- long straw with intermediate straw yields;
- quite good standing power with poor resistance to brackling and average resistance to necking;
- good resistance to *Rhynchosporium* and quite good resistance to *Ramularia* and mildew;
- early to ripen.

Six-Row Hybrid Types

Volume

(Recommended
for special use)

First listed in 2011; Syngenta; feed variety;

- very high treated and untreated yields;
- small grain with low specific weight;
- long straw with low straw yields;
- quite poor standing power with poor resistance to brackling and good resistance to necking;
- good resistance to *Rhynchosporium* and *Ramularia* and average resistance to mildew;
- intermediate to ripen.

Varieties on the HGCA UK List that have performed less well in Northern Ireland or are still being evaluated for Northern Ireland are listed below. Newer varieties will continue in trials in Northern Ireland. Figures in brackets are treated and untreated yields respectively. UK agents' names are in italics.

Two-Row Types

Archer is a malting variety that gives moderate yields (**96, 79**). It has large grain with low specific weight. It has medium length straw with good standing power but very poor resistance to brackling and necking. It has quite good resistance to *Rhynchosporium* and *Ramularia* and is intermediate to ripen. (*Limagrain*)

Cassata is a malting variety that gives moderate yields (**96, 77**). It has average grain quality. It has medium length straw that has good standing power, average resistance to brackling but poor resistance to necking and gives high straw yields. It has good resistance to *Rhynchosporium*, quite good resistance to *Ramularia* but poor resistance to mildew. It is intermediate to ripen. (*Limagrain*)

Flagon is a malting variety that gives low yields (**94, 74**). It has average grain quality. It has poor standing power with poor resistance to necking and brackling. It has good resistance to *Rhynchosporium* and mildew and average resistance to *Ramularia*. It has high straw yields and is early to ripen. (*Syngenta*)

KWS Glacier is a new feed variety that gives very high treated and high untreated yields (**107, 81**). It has large grain with average specific weight. It has quite good resistance to *Rhynchosporium*, quite poor resistance to *Ramularia* and very poor resistance to mildew. It has quite good standing power, and poor resistance to brackling. It gives intermediate straw yields and is intermediate to ripen. (*KWS*)

KWS Joy is a new malting variety that gives low treated and very low untreated yields (**91, 69**). It has small grain with low specific weight. It has short straw with poor standing power, good resistance to brackling and high straw yields. It has quite poor resistance to *Rhynchosporium*, average resistance to mildew and good resistance to *Ramularia*. It is late to ripen. (*KWS*)

Matros is a feed variety that gives high treated and very high untreated yields (**102, 84**). It has very large grain with low specific weight. It has good resistance to *Rhynchosporium*, good standing power and good resistance to both brackling and necking. It has intermediate straw yields and is late to ripen. (*Limagrain*)

Mezmaar is a new malting variety that gives low treated and very high untreated yields (**92, 84**). It has very small grain with very low specific weight. It has quite good standing power, average resistance to brackling and low straw yields. It has good resistance to *Rhynchosporium*. It is intermediate to ripen. (*Syngenta*)

Pearl is a malting variety that gives low treated and moderate untreated yields (**94, 76**). It has large grain with high specific weight. It has medium length straw with quite good standing power but very poor resistance to necking. It has average disease resistance. (*Limagrain*)

Soloman is a new malting variety that gives low treated and high untreated yields (**95, 80**). It has large grain with low specific weight. It has good standing power, poor resistance to brackling and low straw yields. It has quite good resistance to *Rhynchosporium* and average resistance to mildew and *Ramularia*. It is intermediate to ripen. (*Syngenta*)

SY Venture is a malting variety that gives moderate treated and high untreated yields (**99, 81**). It has large grain with average specific weight. It has medium length straw with good standing power but poor resistance to brackling and intermediate straw yields. It has average resistance to *Rhynchosporium* and mildew and quite good resistance to *Ramularia*. It is intermediate to ripen. (*Syngenta*)

Talisman is a new malting variety that has very low treated and moderate untreated yields (**90, 75**). It has large grain with very low specific weight. It has quite poor standing power, average resistance to brackling and gives intermediate straw yields. It has quite good resistance to *Rhynchosporium*, average resistance to mildew and quite poor resistance to *Ramularia*. It is early to ripen. (*Senova*)

Winsome is a malting variety that gives low treated and moderate untreated yields (**93, 77**). It has average grain quality and is early to ripen. It has average standing power, very poor resistance to brackling and gives intermediate straw yields. (*Syngenta*)

Six-Row Types

Escadre is a 6-row variety that gives high treated and low untreated yields (**101, 79**). It has small grain with average specific weight. It has good resistance to *Rhynchosporium* and quite good resistance to *Ramularia*. It has long straw with quite good standing power and very good resistance to brackling. It has low straw yields and is early to ripen. (*KWS*)

Sequel is a 6-row variety that gives moderate yields (**99, 77**). It has small grain with average specific weight. It has long straw with poor standing power. It has good resistance to *Rhynchosporium* and average resistance to mildew. It has low straw yields and is early to ripen. (*Syngenta*)

Element, Pelican and Purdey are no longer on the HGCA Recommended List.

Winter Wheat

Grafton has been promoted to full recommendation and **JB Diego**, **Panorama** and **Alchemy** continue as fully recommended for general use. **Monterey** and **Horatio** are two new provisional recommendations and join **Denman** and **Beluga** which continue into a second year as provisional recommendations. **Einstein** remains of the list as an outclassed variety. **Robigus** and **Stigg** have been removed from the list.

In order to meet vernalisation requirements, **Beluga**, **Grafton** and **JB Diego** should be sown before the end of January; **Alchemy**, **Denman**, **Einstein** and **Horatio** before mid-February and **Monterey** and **Panorama** before the end of February. Yields of all varieties, when sown late, are likely to be much lower than when sown at the optimum time in autumn.

Einstein, **Grafton**, **JB Diego** and **Panorama** have hard endosperm textures and **Alchemy**, **Beluga**, **Denman**, **Horatio** and **Monterey** have soft endosperm textures. Variation in endosperm texture of feed wheat influences starch digestibility in poultry and the degree of rumen degradable starch. Wheat with a soft endosperm tends to be of superior nutritive value.

Variety descriptions are in alphabetical order. Information is also provided on the year each variety was first listed in Northern Ireland, the name of its UK agent and its nabim group. The nabim Wheat Guide lists the flour milling industry's views on wheat varieties and gives marketing guidance on their likely relative values in the UK market. The guide can be found in the HGCA Recommended List booklet for cereals and oilseeds.

Alchemy

(Recommended
for general use)

First listed in 2007; Limagrain; nabim soft Group 4;

- high treated and untreated yields;
- large grain with average specific weight;
- long straw with average standing power;
- quite good resistance to *Septoria tritici*, mildew and *Fusarium* ear blight and average resistance to yellow rust;
- tends to ripen late.

Beluga

(Provisionally
recommended)

First listed in 2012; Senova; nabim soft Group 4;

- high treated and moderate untreated yields;
- very large grain with average specific weight;
- short straw with very good standing power;
- average resistance to *Septoria tritici* and *Fusarium* ear blight, poor resistance to mildew and quite poor resistance to yellow rust;
- early to ripen;
- **susceptible to sprouting.**

Denman

(Provisionally
recommended)

First listed in 2012; Syngenta; nabim soft Group 4;

- high treated and high untreated yields;
- average size grain with average specific weight;
- medium length straw with average standing power;
- quite good resistance to *Septoria*, average resistance to *Fusarium*, quite poor resistance to mildew and poor resistance to yellow rust;
- late to ripen.

Einstein

(Becoming
outclassed)

First listed in 2003; Limagrain; nabim Group 2;

- high treated and moderate untreated yields;
- large grain with average specific weight;
- medium length straw with quite poor standing power;
- quite poor resistance to *Septoria tritici* and average resistance to mildew, yellow rust and *Fusarium* ear blight;
- early to ripen.

Grafton

(Recommended
for special use)

First listed in 2011; KWS; nabim hard Group 4;

- high treated and moderate untreated yields;
- large grain with average specific weight;
- short straw with very good standing power;
- average resistance to *Septoria tritici* and yellow rust, quite good resistance to mildew and quite poor resistance to *Fusarium* ear blight;
- early to ripen.

JB Diego

(Recommended
for general use)

First listed in 2009; Senova; nabim hard Group 4;

- high treated and untreated yields;
- large grain with average specific weight;
- medium length straw with quite good standing power;
- average resistance to *Septoria tritici* and *Fusarium* ear blight, quite poor resistance to mildew and good resistance to yellow rust;
- early to ripen;
- quite good resistance to sprouting.

Panorama

(Recommended
for general use)

First listed in 2010; Limagrain; nabim Group 2;

- high treated and moderate untreated yields;
- large grain with average specific weight;
- medium length straw with good standing power;
- quite good resistance to mildew, *Septoria tritici* and *Fusarium* ear blight and good resistance to yellow rust;
- intermediate to ripen;
- quite good resistance to sprouting.

Monterey

(Provisionally recommended)

First listed in 2013; Senova; nabim Group 3;

- very high treated and high untreated yields;
- large grain with average specific weight;
- medium length straw with average standing power;
- good resistance to *Septoria tritici* and average resistance to mildew, yellow rust and *Fusarium*;
- intermediate to ripen.

Horatio

(Provisionally recommended)

First listed in 2013; Limagrain; nabim soft Group 4;

- very high treated and high untreated yields;
- very large grain with average specific weight;
- long straw with quite good standing power;
- quite good resistance to *Septoria tritici* and mildew, average resistance to yellow rust and *Fusarium*;
- late to ripen;

Varieties that are not recommended but are of local interest and that are entered into the Northern Ireland Seed Certification Scheme are listed below. Figures in brackets are treated and untreated yields, respectively. UK agents' names and nabim Group are in italics.

Oakley gives high treated and very low untreated yields (**101, 60**). It has large grain with average specific weight. It has good standing power and is early to ripen. It is very susceptible to yellow rust. (*KWS; nabim hard Group 4*)

Varieties on the HGCA UK List that have performed less well in Northern Ireland or are still being evaluated for Northern Ireland are listed below. Newer varieties will continue in trials in Northern Ireland. Figures in brackets are treated and untreated yields respectively. UK agents' names and nabim Group are in italics.

Chilton gives high treated and very low untreated yields (**101, 63**). It has large grain with average specific weight. It has quite good standing power and poor resistance to *Septoria tritici*. It is late to ripen. (*DSV; nabim Group 2*)

Cocoon gives moderate treated and very low untreated yields (**98, 62**). It has very large grain with average specific weight and average standing power. It has poor resistance to *Septoria tritici*. It is late to ripen. (*Agrii; nabim Group 3*)

Conqueror has high treated and low untreated yields (**101, 66**). It has average grain quality and average standing power. It has quite poor resistance to *Septoria tritici* and very poor resistance to mildew. (*KWS; nabim hard Group 4*)

Cordiale gives moderate treated and very low untreated yields (**95, 64**). It has average sized grain with high specific weight. It has short straw with good standing power. It has quite poor resistance to *Septoria tritici* and is early to ripen. (*KWS; nabim Group 2*)

Cougar is a new variety that gives high treated and moderate untreated yields (**100, 72**). It has very large grain with low specific weight and has very poor standing power. It has quite good disease resistance and is late to ripen. (*RAGT; nabim soft Group 4*)

Crusoe gives low treated and high untreated yields (**94, 75**). It has very large grain with average specific weight. It has good standing power and good resistance to *Septoria tritici*. It is late to ripen. (*Limagrain; nabim Group 1*)

Delphi gives moderate yields (99, 70). It has good standing power and average resistance to *Septoria tritici*. It is early to ripen. (*Senova; nabim Group 3*)

Dickens is a new variety that gives very high treated and low untreated yields (106, 66). It has large grain with average specific weight. It has medium length straw with good standing power and it has average resistance to *Septoria tritici* and *Fusarium*. It has quite good resistance to mildew and good resistance to yellow rust. It is early to ripen. (*Agrii; nabim hard Group 4*)

Gallant gives high treated but very low untreated yields (101, 62). It has very large grain with average specific weight. It has good standing power but poor disease resistance. (*Syngenta; nabim Group 1*)

Gravitas gives high treated and moderate untreated yields (101, 70). It has small grain with average specific weight and quite poor standing power. It has average disease resistance and is early to ripen. (*Limagrain; nabim soft Group 4*)

Invicta gives high treated and moderate untreated yields (101, 71). It has average grain quality, quite good standing power and quite good resistance to *Septoria tritici*. (*Limagrain; nabim Group 3*)

KWS Croft is a new variety that gives high yields (103, 74). It has large grain with average specific weight. It has medium length straw with very poor standing power. It has average disease resistance and is intermediate to ripen. (*KWS; nabim Group 3*)

KWS Gator gives very high treated and moderate untreated yields (103, 72). It has large grain with average specific weight, good standing power and average resistance to *Septoria tritici*. It is late to ripen. (*KWS; nabim hard Group 4*)

KWS Kielder is a new variety that gives low treated and very low untreated yields (92, 62). It has small grain with low specific weight. It has good standing power with quite poor resistance to *Septoria tritici* and is late to ripen. (*KWS; nabim hard Group 4*)

KWS Podium has high treated and very low untreated yields (**100, 64**). It has large grain with high specific weight and good standing power. It has average disease resistance and is early to ripen. (*KWS; nabim Group 2*)

KWS Santiago gives moderate treated and very low untreated yields (**99, 62**). It has large grain with low specific weight. It has quite good standing power and poor disease resistance. It is late to ripen. (*KWS; nabim hard Group 4*)

KWS Sterling gives moderate treated and very low untreated yields (**97, 60**). It has large grain with low specific weight and has very good standing power. It has quite poor resistance to *Septoria tritici* and good resistance to yellow rust. It is late to ripen. (*KWS; nabim Group 2*)

KWS Target gives moderate treated and low untreated yields (**98, 66**). It has small grain with average specific weight. It has good standing power and quite good resistance to *Septoria tritici*. It is late to ripen. (*KWS; Group 3*)

Leeds is a new variety that gives very high treated and moderate untreated yields (**109, 72**). It has large grain with high specific weight, quite good standing power and average resistance to *Septoria tritici*. It has quite good resistance to yellow rust and *Fusarium* but very poor resistance to mildew. It is early to ripen. (*KWS; nabim soft Group 4*)

Myriad is a new variety that gives high treated and moderate untreated yields (**102, 72**). It has average grain quality and average standing power. It has below average disease resistance and is late to ripen. (*Limagrain; nabim soft Group 4*)

Relay gives high treated and low untreated yields (**101, 68**). It has large grain with average specific weight. It has good standing power and quite good resistance to *Septoria tritici*, average resistance to mildew and *Fusarium* and is early to ripen. Good resistance to sprouting. (*RAGT; nabim hard Group 4*)

Revelation is a new variety that gives high treated and moderate untreated yields (**100, 69**). It has large grain with average specific weight and average standing power. It has good resistance to *Septoria tritici* and quite good resistance to mildew and *Fusarium*. It is intermediate to ripen. (*Limagrain; nabim soft Group 4*)

Scout gives moderate yields (**98, 72**). It has average grain quality and good standing power. It has quite good resistance to *Septoria tritici*, very good resistance to yellow rust and quite poor resistance to mildew. (*Senova; nabim Group 3*)

Solstice has moderate treated and very low untreated yields (**96, 62**). It has large grain with average specific weight and good standing power. It has poor disease resistance and is early to ripen. (*Limagrain; nabim Group 1*)

Tuxedo gives moderate treated and low untreated yields (**95, 67**). It has small grain with low specific weight. It has very good standing power, quite good resistance to *Septoria tritici* and is early to ripen. (*RAGT; nabim Group 3*)

Viscount gives high treated and moderate untreated yields (**102, 69**). It has large grain with average specific weight. It has average standing power and average resistance to *Septoria tritici* and *Fusarium* and poor resistance to yellow rust. It is intermediate to ripen and has poor resistance to sprouting. (*KWS; nabim soft Group 4*)

Claire, Duxford and **Humber** are on the HGCA UK List but are not described here as they have not been in the most recent AFBI Recommended List trials. **Battalion, Humber, Ketchum, Stigg, Torch** and **Warrior** are no longer on the HGCA Recommended List.

Winter Oats

Conventional Husked Oats

Mascani has been promoted to join **Dalguise** and **Gerald** as fully recommended for general use. **Balado** is now fully recommended for special use because it has very low specific weight and is only suitable as a feed oat.

Variety descriptions are in alphabetical order. The year each variety was first listed in Northern Ireland and the name of its UK agent are also given.

Balado

*(Recommended
for special use)*

First listed in 2011; Senova;

- very high treated and high untreated yields;
- very large grain with low specific weight and low kernel content - **this variety has a specific weight below 50kg/hl and is unlikely to meet millers' quality requirements;**
- low screenings and little tendency to produce free kernels but some tendency to produce empty husks;
- very short straw with excellent standing power and very good resistance to brackling;
- quite good resistance to mildew but poor resistance to crown rust;
- early to ripen;
- not suitable for the quality market.

Dalguise

*(Recommended
for general use)*

First listed in 2004; Senova;

- high treated yields and moderate untreated yields;
- very large grain with high specific weight and high kernel content;
- low screenings and some tendency to produce free kernels but little tendency to produce empty husks;
- medium length straw with quite poor standing power and poor resistance to brackling;
- poor resistance to mildew and crown rust;
- intermediate to ripen;
- suitable for the quality market because of its specific weight.

Gerald

*(Recommended
for general use)*

First listed in 1993; Senova;

- high treated and untreated yields;
- average sized grain with high specific weight and average kernel content;
- low screenings and little tendency to produce free kernels or empty husks
- medium length straw with average standing power and average resistance to brackling;
- quite poor resistance to mildew and average resistance to crown rust;
- intermediate to ripen;
- suitable for the quality market because of its specific weight.

Mascani

(Recommended
for general use)

First listed in 2011; Senova;

- high treated and very high untreated yields;
- very large grain with high specific weight and high kernel content;
- very low screenings, some tendency to produce free kernels, little tendency to produce empty husks
- medium length straw with quite good standing power and good resistance to brackling;
- quite good resistance to mildew and good resistance to crown rust;
- intermediate to ripen;
- suitable for the quality market because of its specific weight.

Naked Oats

Yields of naked oats are low when compared directly with husked oats because during harvest the grain threshes free from the husk and only the groat is harvested. As a result, naked oats tend to have higher specific weights and smaller grain than husked oats. The naked grain has nutritional benefits, such as higher oil and nutrient content and interest is currently being shown by the poultry industry. **Grafton** and **Fusion** are recommended for general use in the UK.

Fusion is a naked oat that gives very low treated and untreated yields (79, 61). It has medium length straw with average standing power and average resistance to brackling. It has average resistance to mildew and crown rust. It is intermediate to ripen. (*Senova*)

Grafton is a naked oat that gives very low treated and untreated yields (74, 62). It has medium length straw with average standing power and average resistance to brackling. It has average resistance to mildew and crown rust. It is intermediate to ripen. (*Senova*)

The end market should be established before growing a naked oat.

Choosing and Managing Varieties

- When selecting varieties, consider straw characteristics in relation to soil fertility and exposure of fields. Take care with nitrogen applications on weaker-strawed varieties. They are more susceptible to lodging.
- Varieties differ in resistance to diseases. Yields will be lower if infections are severe. Resistant varieties need less fungicide.
- Resistance to disease can change. Susceptibility to mildew may increase quite rapidly in only a few years. Inspect crops of all varieties regularly for disease infection during the growing season.
- If minimal fungicide usage is planned, consider varieties with high untreated yields. If you plan to use fungicides, consider varieties with a high treated yield. Remember that the disease control measures used in our trials are designed to keep disease to a minimum regardless of cost.
- Do not sow a large area with a new variety until you have gained some experience with it and have found it to be well suited to the conditions of your farm.
- Careful drying is essential for oats grown for the quality or horse feed markets. Poor drying can lead to deterioration of the grain and bitter taste.

UK Agents

Agrii Tel: (01242) 821100 www.agrii.co.uk
Agrii is the trading name of Masstock Arable (UK) Ltd, Andoversford,
Cheltenham, GL54 4LZ

Cope Seeds Tel: (01529) 421081 www.copeseeds.co.uk
Cope Seeds Limited, Helpringham Road, Scredinton, Sleaford, NG34 0BW.

DSV Tel: (01366) 388223 www.dsv-uk.co.uk
DSV United Kingdom Ltd., 17 Lynn Road, Downham Market, Norfolk, PE38
9NJ

Goldcrop Limited Tel: 00 353 (0)21 488 2800 www.goldcrop.ie
Springhill, Carrigtwohill, Co. Cork, Ireland

KWS Tel: (01763) 207300 www.kws-uk.com
KWS UK Ltd, 56 Church Street, Thriplow, Nr. Royston, Hertfordshire SG8 7RE

Limagrain Tel: (01472) 371471 www.limagrain.co.uk
Limagrain UK Ltd., Rothwell, Market Rasen, Lincolnshire, LN7 6DT

RAGT Tel: (0845) 0525245 www.ragt.co.uk
RAGT Seeds, Grange Road, Ickleton, Essex CB10 1TA

Saaten Union Tel: (01440) 783440 www.saaten-union.co.uk
Saaten-Union (UK) Ltd., Rosalie Field Station, Bradley Road, Cowlinge,
Newmarket, Suffolk CB8 9HU

Seed Technology Ltd Tel. 00 353 (0) 51 832814 www.seedtech.ie
Ballymountain, Waterford, Ireland

Senova Tel: (01223) 890777 www.senova.uk.com
Senova Ltd, 49 North Road, Great Abington, Cambridge CB21 6AS.

Syngenta Tel: (01223) 883400 www.newfarmcrops.co.uk
Syngenta Seeds Ltd, 30 Priestley Road, Surrey Research Park, Guildford GU2
7YH

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Plant breeders, merchants and other specialists requiring technical data on trials, testing procedures and variety details should contact:

AFBI Crossnacreevy
Plant Testing Station
Crossnacreevy
BELFAST BT6 9SH

Tel: 028 9054 8000
Fax: 028 9054 8001

The DARD Recommended List is available at www.afbini.gov.uk. The UK Recommended List 2013, published by the HGCA, is available from the Plant Testing Station and also at www.hgca.com.

Farmers' experience of growing varieties is valuable to us. If after growing any of the varieties listed in this booklet, you have any useful comments, please get in touch with us at the Plant Testing Station.

Key DARD Contacts: Farmers, growers and processors requiring guidance on variety selection and use should contact their local CAFRE Development Adviser on 0845 30 44 503.

New DARD telephone numbers:

Animal Health & Welfare and Veterinary Public Health	0845 30 44 500
Education and Training	0845 30 44 501
Environment	0845 30 44 502
Farming	0845 30 44 503
Fisheries	0845 30 44 504
Flood Defence and Drainage	0845 30 44 505
Food	0845 30 44 506
Forests	0845 30 44 507
Grants and Funding	0845 30 44 508
Rural Development	0845 30 44 509
DARD Corporate Services	0845 30 44 510
Textphone	0845 30 44 511
Calls from non-UK numbers or networks/ International Calls	+44(0)28 9037 8418

Farmers, growers and processors requiring more specialist information on crops should contact:
CAFRE Technology & Business Division Services,
Crops and Horticulture, Greenmount College

Tel: 028 9442 6770

Fax: 028 9442 6777



Department of

**Agriculture and
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**Talmhaíochta agus
Forbartha Tuaithe**

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