



Agrivice Variety Trials 2007.



Selecting the best varieties of Winter Wheat for you to grow is clearly a critical decision . The following factors are the most important to consider :

- * Market acceptability
- * Grain Yield
- * Potential for premiums
- * Disease Resistance

Varietal descriptions :

Group 1 – Hard Endosperm Breadmaking Quality :

Group 2 – Hard Endosperm Milling Quality :

Group 3 – Soft Endosperm Biscuit and or Distilling Quality Flours

Group 4 : Feed and Export Quality Flours

YR = yellow rust, ST = septoria tritici, M = mildew, BR = brown rust, FEB = fusarium ear blight

Varieties listed in order of drilling :

Malacca Group 1 - A popular hard endosperm bread-making variety. Its protein potential is a little lower than that of Hereward, however, its yield is some 7% higher. It has short, stiff straw and early maturity with good resistance to yellow and brown rust, and septoria nodorum. It gives grain with high Hagberg Falling Number and high Zeleny values but with moderate protein and specific weight values. Speed of development is medium/fast, optimum-sowing date mid-late September onwards. ST5, M6, YR9, BR6, FEB6, 94. Breeder CPBT (Riband x (Rendezvous) x Apostle)).

Mascot Group 1 - It has a high-untreated yield reflecting its sound disease resistance and excellent straw strength. It has shown in trials consistent high protein levels and specific weights. Although the variety has a low score for yellow rust, it needs to be noted that it is the same race which attacks Napier and Einstein, not the race that attacks Robigus, which could become a problem in the future. Best suited to the main drilling window of mid-September onwards. The variety offers whiter flour than Malacca, making it a good bread making variety. Could struggle against Solstice. ST5, M7, YR4 BR5. 101. Breeder RAGT, (Reaper x Rialto.). Most likely to end up as group 2.

Marksman Group 1 or 2 – Again very high untreated yield , ST6 , M7, YR8 , BR8 , 104 , good for protein and Specific wt but average Hagberg , breeder is RAGT .

Musketeer Group 1 or 2 – A candidate list variety with potential bread making quality , good protein and specific wt , with good yield potential , need to watch yellow rust , ST5, M6, YR4 BR8, Breeder RAGT .

Timber Group 4 – Downgraded from Group 2 to Group 4 . Not on the candidate list for this year , Breeder Saaten Union. Parents(Terrier X Hamac).

Velocity Group 1 or 2 – On the Candidate list this year , a very high HFN (321) , good for protein and specific wt , Disease resistance ST5, M4 , YR9, BR7,103 breeder is Nickerson/Advanta

Solstice Group 1 - Hard endosperm wheat with some bread making quality. Reclassified by NABIM from group 2 to group 1 ,7% higher yield than Malacca , Reasonably stiff with moderately long straw (unless you have drilled it early where a good PGR programme will be necessary). Good resistance to yellow rust but susceptible to brown rust. It gives a large grain with a reasonably high specific weight and Hagberg Falling Number. Good for early drilling but could be prone to ergot if drilled very early. Speed of development medium to slow. Optimum time for drilling – mid-September onwards. ST5, M4, YR9, BR4, FEB6, 100. Breeder Advanta. (Vivant x Rialto).

Cordiale Group 2 - Excellent quality bread making variety, ideal for both home and export markets. It offers yield potential of Einstein, together with high specific weight and Hagberg. Quality is not as good as that expected from Solstice. Agronomically, it offers a variety with short and very stiff straw with good mildew resistance; however, it is weak on septoria tritici, brown rust, yellow rust and eyespot. Early to mature - just a little behind Soissons but in front of Malacca. Can be grown as both first and second year wheat, even looks good in the continuous wheat situation. Has a fairly level yield platform i.e. performs well when drilled early or late. Speed of development is medium to fast. Optimum drilling time late September onwards. ST5, M6, YR6, BR3, FEB6, 102. Breeder CPB Twyford. (Malacca x Cadenza x Reaper).

Einstein Group 2 - A hard endosperm milling wheat which yields. Stiff straw (7) with good all-round disease resistance. Standing rated at 7, eyespot 6. Slow developing but because of standing rating, do not sow too early. The millers like this variety due to its inherent white flour. Alevograph data shows the variety is similar to Charger, which is extremely desirable for export markets. Dilution of protein content due to its high yield potential may require an additional nitrogen application to achieve full specification. Speed of development medium. Optimum time for sowing mid-late September onwards. ST5, M6, YR6, BR6, FEB6, 104. Breeder Nickerson. (NSL92-1670 x NSL90-1282).

Duxford Group 2 – Candidate list variety , good yield potential , good HFN , moderate protein and specific wt , ST5, M6, YR6, BR7 109 Breeder Syngenta / NFC .

Limerick Group 2 – Another candidate list variety , high yield potential , currently high disease resistance to both yellow and brown rust ST6, M6, YR9, BR8 , 114 . Breeder Syngenta /NFC .

Claire Group 3 - Still on the recommended list , a soft endosperm variety with good biscuit-making potential and a wide variety of end markets. Its popularity is slowly declining. It performs particularly well in first wheat situations and on heavier soil types. It is slow developing and is particularly suited to early drilling. Avoid as a second year wheat. It has good resistance to yellow rust, brown rust, septoria nodorum, septoria tritici and eyespot but is very prone to mildew. Drilled very early you can reduce the NIAB rating for septoria by 1 point. It should have high combining priority in wet harvests due to low sprouting resistance. Speed of development

slow. Optimum time for drilling mid-September. ST6, M4, BR5, YR9, FEB7, 100. Breeder Nickerson. (Wasp x Flame).

Robigus Group 3 - A soft-milling wheat whose treated yield has been above the highest yielding feed varieties. Its market share is set to increase even with the threat of yellow rust. It is suitable for the UK biscuit and distilling markets and is suitable for export into the biscuit and blended flour markets. It is suitable for all soil types sown as a first year wheat. **However, it is not to be sown as a second year wheat.** It has a high tillering capacity and has good resistance to septoria nodorum and septoria tritici (2nd best resistance available), although when drilled early, its rating for septoria tritici could be reduced by 2 points.. It is very susceptible to yellow rust and is attacked by the same race (Oxbow) that attacks Consort, Wizard and Hereward. Seems to offer a high degree of midge tolerance. Speed of development - medium-fast. Optimum time for drilling mid to late September. ST6, M7, BR9 ?? YR3, FEB 5, 104. Breeder CPB Twyford. (Z836 X 1366).

Consort Group 3 - Still on the recommended list but Consort's share of the market will further decline due to a yield below many modern varieties and its susceptibility to septoria tritici. This is a soft endosperm variety with several potential market outlets including, feed, biscuit, export and distilling. It has short, stiff straw and does well as a second wheat. It is slow developing and is suitable for early drilling. Very susceptible to septoria tritici. Odd cases of yellow rust been seen in this variety (strain Oxbow). Speed of development slow. Optimum time for drilling early part September. With its poor rating for septoria and its yield potential below other varieties it is now time to consider giving up growing this variety. ST4, M6, BR3, YR6, FEB5, 99. Breeder PBI. (Riband 'sib' x Fresco x Riband).

Deben Group 3 – A soft endosperm feed wheat with specific milling uses for cakes and batters. Although a group 3 type, it does not have the same flour characteristics for biscuits as Consort and Claire, so should be stored separately. Less well liked by the distilling and starch industries. It has very high yields but rather weak straw and has given its best performances on lighter, less fertile soils. Seems slightly less sensitive to rotational position than Claire, it performs well as a second wheat. It has good resistance to yellow rust, septoria nodorum and septoria tritici but is somewhat susceptible to mildew and eyespot. Speed of development medium - drill later due to weak straw. May be wise to avoid drilling this on very fertile land. ST6, M6, BR4, YR9, FEB 6, 104. Breeder Nickerson. ((Hunter x Buster) x Wasp).

Benzine Group 3 – Candidate list variety , soft endosperm , distillers like it but for that reason they may have to change its name !! , currently very good resistance to the rusts and also OWBM , good stiff straw ,ST6, M7, BR9, YR9 . Breeder CPBT .

Zebedee Group 3 – Now on recommended list , this is a soft endosperm wheat suited for biscuit production and distilling, with the ability to be stored with other biscuit making varieties as it has very similar milling characteristics. Straw length is moderately short with a similar standing power to Claire when both are treated with a PGR. It should also be noted that it is very responsive to PGR's. Ideally suited to drilling in mid-September onwards and gives a medium to fast development in trials. Moderate overall disease resistance with good resistance to yellow rust, but need to watch brown rust (previously 8) although it needs monitoring for eyespot. ST5, M6, YR9 ,BR4, 105. Breeder Advanta. (Claire x Nelson).

Alchemy Group 4 - Although Alchemy has been classified as a Group 4 variety, it is a soft endosperm type. Its main market will be for feed, but with an HGCA uks export classification, there are possibilities for additional overseas markets plus the possibility of the distilling marketing in the North. Alchemy is one of the highest yielding treated and untreated varieties in

the Recommended List. The physical grain characteristics of high Hagberg falling number and very high specific weight offer growers very high levels of security for end market use. . Has shown a drop in resistance to brown rust over the last year. ST7, M7, YR9 BR4, 104. Breeder Nickersons. (Claire x (Consort x Woodstock)).

Ambrosia Group 4 - Soft endosperm feed wheat. High yielding. It is a short stiff variety. Disease ratings not too bad apart from septoria tritici and eyespot. Reasonably fast developer, so not suitable for early sowing. Useful as a second wheat. ST4, M6, YR5, BR7, FEB4, 106. Breeder RAGT. (Cantata x Genesis) x Pinder.)

Gladiator Group 4 - A very high yielding hard feed wheat with high specific weight. It has short, stiff straw with a standing power of 7. Overall disease resistance is good , however resistance has declined , its main weakness is septoria tritici. Initial trials indicate it is suited to both the early (2nd week September) and late drilling positions. Speed of development medium. Good first and second year wheat. ST5. M6, BR8, YR8, FEB5, 104. Breeder RAGT. (Falstaff x Shannon).

Glasgow Group 4 - Soft endosperm feed wheat with very high yields. It is a good first year wheat with the possibility of being a good second year variety. More data required. Needs to be watched for yellow and brown rust., ratings have dropped since last year , Same YR race that affects Madrigal. Fast developer not suitable for early sowing. ST5, M7, BR5, YR4, FEB5, 108. Breeder Saaten Union. (Ritmo x Saaten union line).

Oakley Group 4 – Now on the recommended list , has given some very high treated yields, well above Glasgow and Alchemy,. It has good all-round disease resistance although its straw length is only moderate but nevertheless manageable. Has moderate winter dormancy and is suitable for sowing from mid-September onwards. Also suitable for late sowing. Resistant to WOBM.,ST6, M7, YR6, BR9, , eyespot 5, 106. Breeder CPB Twyford. (Robigus x Aardvark) X (Access).

Humber Group 4 – On recommended list , good early driller on heavy land , very stiff strawed , good yield and good resistance currently to both yellow and brown rust . ST5 , M5 , BR7, YR9 , 107 , Breeder CPBT

Sahara Group 4 – Not yet a candidate variety , apparently very high yield potential with a stiff straw and good all round disease resistance , Breeder was INNO taken over by Nickersons .

Hereford Group 4 – Candidate list variety , Hard endosperm with good yield potential but very susceptible to Brown rust and may be a bit weaker strawed . ST6, M6, BR2 , YR9 . Breeder Syngenta Seeds /NFC

JB Diego Group 4 – Candidate list variety , hard endosperm , high untreated yield but watch susceptibility to mildew , ST6, M3, BR6, YR9 . Breeder Breun /Senova .

Monty Group 4 – Another candidate feed list variety, soft endosperm , again good yield potential , with overall good disease resistance but brown rust will need watching .Also resistant to OWBM , ST6, M7 , BR5, YR9 . Breeder Syngenta / NFC .

Exsept Group 4 – Not on the recommended list nor a candidate variety , according to the breeder it is a very stiff strawed , very high yielding with very good septoria tritici resistance which makes it potentially useful for organic production , Breeder Nickersons .

Brompton Group 4 – Recommended list variety , specific recommendations for the east and for OWBM resistance . Good yield , reasonably stiff straw , ST5, M4, BR7, YR8, FEB6. Breeder Elsoms .

Battalion Group 2 – Not yet a candidate variety , high yielding, lodging resistant hard feed wheat with milling potential. Good all-round foliar disease ratings plus Pch 1 eyespot resistance. Also resistant to soil-borne mosaic virus. but specific weight borderline. Still being assessed for any bread-making potential, particularly for export. Lodging 7, M7, YR7, BR9, ST9 and eyespot 6. Breeder RAGT Seeds. (98ST08 X Aardvark)..

Summary.

Wheat varieties seem to change quite dramatically year on year , Since last year Timber has been down graded from a group 2 to group 4 , Solstice upgraded from group 2 to group 1 , generally quite a lot of downgrading of disease resistance especially in brown rust but also in mildew . We have all of the candidate list varieties in our trial , it will be very interesting to see which of them get on to the recommended list , Velocity and Benzine look very interesting .

Varietal Suitability.

Very early drilling	Exsept, Alchemy
Early drilling	Claire, Consort, Solstice - better mid-Sept to avoid possibility of Ergot development, Exsept, Alchemy , Humber (heavy land early drilled)
2nd year	Ambrosia, Einstein, Gladiator , Battalion .
Continuous	Einstein, Gladiator
Light land	Deben, Istabraq, Oakley
Late drilling after roots	XI19, Solstice, Oakley
Orange blossom midge	Brompton, Glasgow, Robigus, Oakley,

Winter Barley variety notes

Flagon and Pearl are still the standards for the 2 row malting market with Flagon offering higher yield potential . Cassata has been added to the recommended list it has the same yield potential as Flagon and is currently under test for IBD malting approval for brewing.

Wintmalt is a new candidate variety with malting potential , currently higher yielding than Flagon or Cassata , good resistance to Brown rust , Rhynchosporium and Net Blotch but need to watch yellow rust (2) and mildew (4) , the breeder is CPBT .

Feed varieties :

Retriever is now on the recommended list and holds the highest yield potential 109 which is 5% higher than the next best yield option Saffron . Bronx and Pelican share the best yield potential on the list for the 6 row barleys at 111 . This is 3% higher yielding than the best candidate last year Colibri .

Winter Barley Choice for autumn 2007

2 row malt	2 row feed	6 row feed
Flagon	Retriever BaYMV r	Bronx BaYMV r
Cassata BaYMV r	Saffron	Pelican BaYMV r
Wintmalt (candidate)		

Winter Oilseed rape

Open Pollinating varieties

Castille is the most widely grown variety this year but its potential yield has been surpassed by Lioness and NK Bravour , Lioness has the highest oil content 45.9% , they all have moderate resistance to Phoma , Castille may have the edge here .

Catana is a new candidate variety with high yield potential but again only moderate on phoma , Komando looks useful with very good resistance to Phoma at 8 . Hearty is a candidate with a high erucic acid conversion potential , this may carry a useful premium but the yield is relatively low .

Restored Hybrids

Excalibur or Hornet have the highest yields in the hybrid sector on the recommended list , reasonable oil content but only moderate resistance to Phoma . PR45D03 is a new semi dwarf variety from Pioneer which is considerably shorter than other varieties and therefore can be managed without high clearance equipment e.g. Delayed nitrogen application and application of late season fungicides and insecticides , it is also very resistant to lodging and can provide 25% more yield than other varieties in a lodging year .

Choice for 2007

Conventional low biomass : Castille or Astrid , Komando is worth considering as a new candidate .

Conventional high oil content : Lioness 45.9% or NK Bravour 44.8%

Hybrids : Excalibur , Flash (high yielding candidate variety) or consider PR45D03 the semi dwarf .

Winter Beans

Wizard continues to be the preferred choice , however Arthur is a new provisional variety with a potential yield of 105 which is 3% higher than Wizard but the standing ability at harvest is only 4 v 8 for Wizard .