

**nabim's wheat guide lists the flour milling industry's views on varieties and gives marketing guidance on their likely relative values in the UK market. It complements other information on wheat varieties from HGCA, Crop Evaluation Limited, NIAB, SAC and DARD. It should be noted that just as a variety can vary in agronomic performance from year to year, end-use performance might also vary.**

Increasingly, more contracts specify single varieties of wheat, since the variety is the most important element in determining end-use performance. Wherever possible, different varieties should be separated within stores in order to maintain their full value. Even where varieties are of apparently similar value, mixing can reduce their marketability, a factor that is brought out in some of the comments below. Varieties are listed in alphabetic order.

## Group 1

Varieties likely to gain a full breadmaking premium from all millers, if requirements of 13% protein, 250s Hagberg Falling Number (HFN) and other minimum specifications are met. Lower protein will also be of value, but will attract a lower premium. Group 1 varieties are not interchangeable and some are better suited to specific uses than others. Therefore, it is important to check end-use requirements.

**Hereward** Although grown on a decreasing acreage this variety is a good benchmark for Group 1 and is still popular with millers. Contract growing schemes are available and some millers may offer further premiums for higher protein content.

**Malacca** This variety has shown good breadmaking performance in recent years. It is liked by all millers, although endosperm colour is slightly more yellow than desirable. In recent seasons there has been a tendency to lower specific weights.

**Mascot** nabim upgraded this variety to full Group 1 status for the 2007 guide. Because it is still not widely available commercially, it is possible that not all businesses will value the variety equally.

**Paragon** A spring variety whose performance in breadmaking has been excellent.

**Solstice** This is one of the most widely planted milling varieties and is much used by millers. Originally placed in Group 2, it has continued to perform well.

**Xi 19** This variety has performed consistently in breadmaking tests. Because of its tendency to produce lower protein content at higher yield, correct agronomic management will be important. Low protein consignments are unlikely to be accepted by all millers.

## Group 2

This group comprises varieties that exhibit breadmaking potential, but are not suited to all grists. Some are consistent, but not as good as those in Group 1; some perform inconsistently whilst others are suited to specialist flours. Therefore these varieties are likely to attract varying market prices.

**Battalion** It exhibits a weak crumb structure in loaves and there are weaknesses in the gluten. Because it is not widely available commercially, it is unlikely to be a preferred variety amongst those in Group 2.

**Cordiale** An early maturing variety that has higher than average HFN and has performed consistently over the years.

**Einstein** Einstein is used by most millers as a constituent part of bread-making grists. However, with a tendency to produce lower protein content at higher yields and with a lower water absorption, only restricted proportions of this variety can be used in millers grists.

**Marksman** New to the list this season. In small-scale trials, it has achieved the desired protein content more easily than some other varieties. Its extra hard milling characteristic gives rise to better flour water absorption. Gluten quality is strong, but the flour colour tends to be creamy rather than white. The combined hard milling, high protein and strong gluten suggests it will be used either in blends or in specialist circumstances.

**Soissons** An early maturing variety liked by millers and used in specialised bread grists. It can, on occasion, command a price equivalent to Group 1 varieties.

**Tybalt** This is a spring variety, which has a tendency to low protein content and softer grain.

**Other Group 2 varieties:** Ashby and Chablis

## Group 3

This Group contains soft varieties for biscuit, cake and other flours.

**Claire** A good biscuit wheat that continues to be the benchmark for Group 3. It is popular with millers for its good dough extensibility characteristics.

**Consort** This is a good biscuit wheat, which is still popular with millers for its dough extensibility.

**Deben** The dough has been found to be less extensible than that produced by Consort or Claire. It is not preferred by all millers and, as such, should be stored separately.

**Nijinsky** This is a variety that meets the criteria for biscuit performance.

**Riband** First listed in 1989 and still grown mostly in the north. It is suited to soft flour grists.

**Robigus** It is widely used by the milling industry as it meets the criteria for biscuit performance.

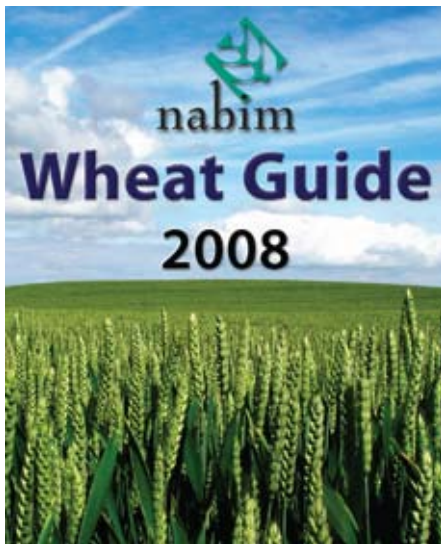
**Zebedee** This variety was added to the Recommended List in 2007. It meets the criteria for biscuit performance.

## Group 4

**Other wheat varieties (such as the examples listed below) may be used by millers in certain grists but are unlikely to attract a premium. If possible, care should be taken to avoid mixing hard and soft wheat varieties.**

**Hard:** Brompton, Duxford, Gladiator, Humber, JB Diego, Oakley, Timber, Welford.

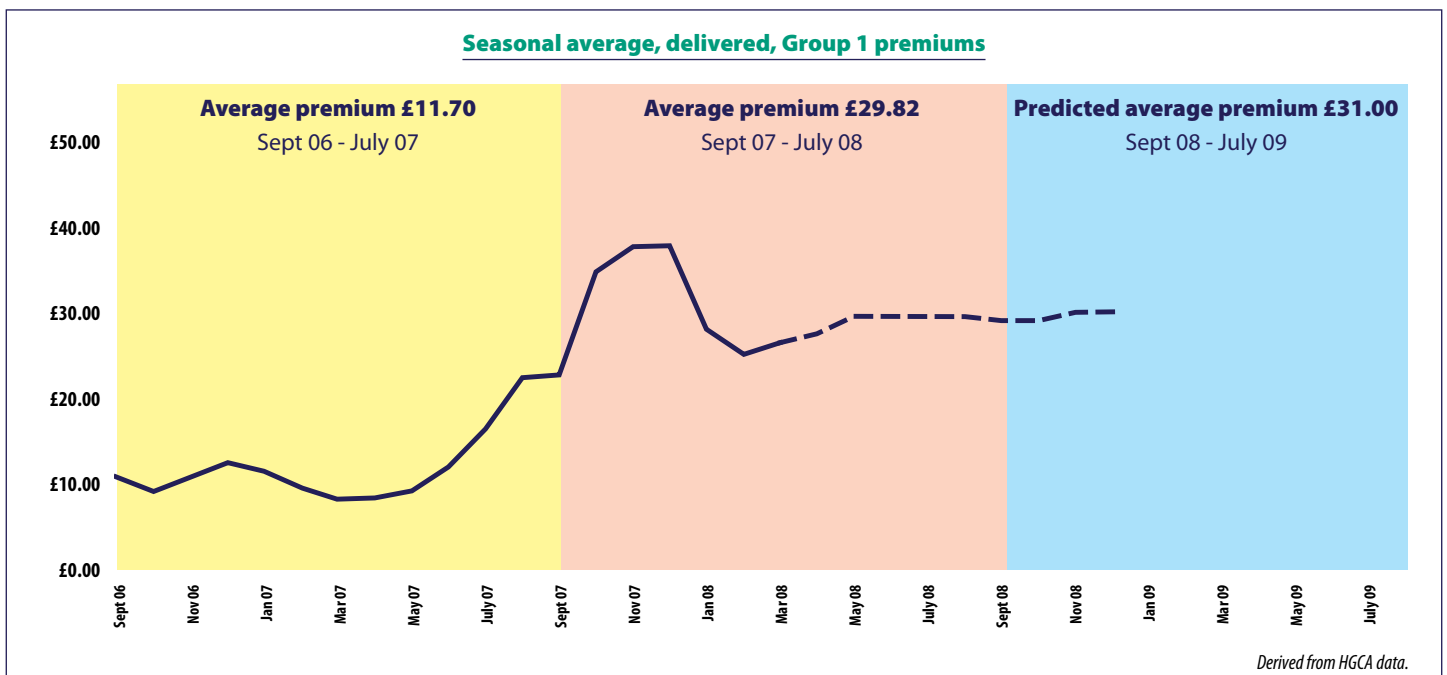
**Soft:** Alchemy, Ambrosia, Gatsby, Glasgow and Istabraq. *Although soft, these varieties are not generally suitable for biscuit flour.*



British and Irish millers remain committed to using home-grown wheat that conforms to ACCS or similar standards, with approximately 85% of wheat used being UK produced. Because of this we devote much time, energy and finances to assisting breeders and the HGCA to identify baking potential of new varieties at the earliest possible stage. In the last couple of years we have seen a great breakthrough in the way in which end-use traits can be identified. As millers, we welcome these. There are now two LINK-funded research projects that will specifically generate genetic information that relates directly to objective measures of end-use performance.

2007 saw unprecedented rises in wheat prices, not just in the UK but worldwide. There are many factors behind this rise; not just greater world demand but also increased competition and poor harvests. This led to a high basic price and a substantial rise to premiums being paid for milling quality. These premiums provide further incentive for farmers to grow milling wheat.

Commentators are naturally wary of predicting the future, but expectations are that prices will remain relatively high and the market will be far more volatile than in previous years.



### The future of milling wheat varieties

Generally, farmers and breeders want newer varieties that have a higher yield and a better agronomic package than those varieties that they replace. In contrast, millers want a number of Group 1 and 2 varieties with better and consistent bread making characteristics and a range of soft milling Group 3 varieties for biscuit and cake production.

For millers, one difficulty appears to be that the hard wheat varieties that are coming forward are getting softer with an increased range of medium hard wheats. Ideally, millers would welcome the advent of a new Group 1 variety that is similar to Hereward, but with tolerance to seasonal variation and UK soil types, with higher yields and consistent bread-making qualities.

In order to achieve this, it may be that less emphasis will have to be placed on new varieties having higher yields than on their end-use functionality. From a breeder's perspective it is not just a matter of meeting end-

user requirements but also achieving the agronomic, disease and pest resistance characteristics that are important for farmers. Millers remain concerned that some potentially good bread-making varieties may be screened out at an early stage due to shortcomings in yields, growth patterns or other agronomic traits. In essence, millers require new varieties that have the ability not to sprout in the ear and thus have high Hagbergs, are able to produce consistently white flour, and have good gluten characteristics. Additionally, they require a range of varieties available within each group. Currently, there is a reliance on too few varieties within each group. Millers need a range of performance characteristics available so that these can be blended together to get the best possible mix of traits in a grist.

### Reducing the mycotoxin risk

In 2007 the grain chain experienced a major challenge with moderate levels of deoxynivalenol (DON)

mycotoxins being found in many areas. Fortunately, farmers and merchants responded well to the challenge so that the entire chain was able to resolve this potentially difficult situation. The issue was that mycotoxin levels were certainly significantly higher than in previous years and some adversely affected crops were outside the 'high risk' areas previously identified by the HGCA. This year's experience should permit the HGCA risk model to be further refined so that accurate risk assessments can be made on-farm.

For millers, the presence of DON mycotoxins at levels close to the legal threshold for wheat (1250 ppm) are serious. Delays can occur at intake and disruptions to the milling process can have massive continuity and financial implications. Last season was a learning process for all concerned. Farmers and merchants became more aware of the issue and the need to take preventative measures, and millers learnt how to maintain production whilst ensuring that food safety is not compromised.