

THE TRUTH ABOUT FLOUR by C.Lovell, Hele Mill.

A wheat grain has 3 main components:-

1. The flour-yielding portion of the grain, called the Endosperm; about 85% of the entire grain.
2. The Germ – the seed which develops ultimately into the plant. This is the very "life" of the grain, and comprises about 2% of the entire grain.
3. The Bran, which is the outer skin or covering of the grain (there are several distinct layers all with different names). This forms about 15% of the entire grain.

TYPES OF FLOUR.

The Bread and Flour Regulations 1984 have redefined the names of flour, and have eliminated such terms as "85% Wheatmeal", which few people understood. Now there are just three legal descriptions of flour; "Wholemeal" or "Wholemeal Flour", "Brown Flour", and "Flour". These are descriptions of flour, and have nothing to do with descriptions of bread.....an entirely different matter.

WHOLEMEAL.

Legally..... this is flour which contains "the whole of the product derived from the milling of cleaned wheat" in other words, all the components of the grain. All the germ, all the bran, and all the endosperm.

In actual fact many mills remove between 2 and 5% of the entire grain. Very regrettably the Trading Standards Officers turn a blind eye to this practice thus completely invalidating the description "100% Wholemeal Flour" which appears on many bags. Not all mills do this, and at Hele Mill we only produce genuine 100% Wholemeal flour.

BROWN FLOUR.

This is the name of flour that "has a crude fibre content...of not less than 0.6% ". The crude fibre content of Wholemeal is 2–2.5%, so Brown Flour has only one quarter of the crude fibre found in Wholemeal. The legal description makes no mention of the need for any germ at all, and it is usually absent. Usually Brown Flour has colouring matter added to make it look brown, and this is one of the reasons why many people erroneously believe that it is "almost" Wholemeal.

FLOUR.

This is flour which has less than 0.6% crude fibre. The legal description says little more than that, but almost invariably it has no germ in it, and has been bleached white....usually with Chlorine Dioxide. This is a chemical used in the textile industry; it is considered too dangerous to be used even for cleaning drains. In many countries bleaching is prohibited.

WHOLEWHEAT.

This means "wholemeal". It is a word wrongly used and causes needless confusion. When grain is milled it becomes "meal", so, pedantically, wholewheat should only be used to describe entire grains of wheat. Hopefully the 1984 Regulations will result in the elimination of this word because it is not a legal description.

ADDITIVES (compulsory).

All flours other than 100% Wholemeal must have a specified amount of chalk added to them. This became law following an outbreak of rickets in Dublin in 1941. In addition to the chalk it is compulsory to add certain specified amounts of Iron, Thiamin (vitamin B1) and Nicotinic Acid to all flours other than wholemeal. Some consider that this is little more than a token attempt to make up for the many items missing from flour that is not wholemeal.

OTHER ADDITIVES.

Caramel, Alpha–Amylases, and Proteinases are the only permitted in wholemeal flour intended for breadmaking. Several other additives to wholemeal flour are permitted if it is self–raising, or if it is intended for the manufacture of scones, buns etc. A very great range of additives may be legally added to other flours.

BRAN.

Bran is the outer woody protective covering of wheat grains. For decades millers have been perfecting means of removing it, and have spent millions of pounds on machinery to do so. It used to be thought that bran was of no use to humans, but over the last forty years or so there has been an almost complete about–turn of medical opinion. It is now generally agreed that the fibrous nature of bran is beneficial, but to an old–time miller, cereals with added bran would have seemed about as useful as a lawn with added weeds.

FIBRE.

Lack of fibre in the diet is an important cause of constipation, and in many cases the addition of bran to the diet can help those suffering from it. Fibre also helps the even worse conditions of colitis, diverticulosis, and diverticulitis, as well as several other illness.

Although many people have benefited by sprinkling bran on their food, that is not really the best way to take more fibre. It is as "unnatural" to eat bran in this way as it is to eat the refined foods which cause the need for more fibre in the first instance! Adding bran to a diet of refined carbohydrates will not really SOLVE anything, it will only mask the symptoms caused by fibreless foods. The real solution is to change to a wholefood diet: use wholemeal flour instead of using white flour and attempting to make up the fibre deficiency by sprinkling bran on other foods. For these reasons, at Hele Mill we do not sell bran alone, but supply it in its natural state as a part of our wholemeal flour or wheatflakes.

WHEATGERM.

The wheatgerm is only a tiny fleck, about the size of a pin head, in a grain of wheat, but it is one of nature's most concentrated sources of protein, iron, and vitamin B. Bran has been the subject of so much controversy recently (although now virtually resolved) that it has stolen the limelight from wheatgerm.

Wheatgerm is concentrated nutrition, and has been known in the athletic world for a long time. In 1954 Dr Roger Bannister ate wheatgerm daily before he ran the first under–four–minute mile.

Wheatgerm contains Vitamin C, but marvellously, also contains chemical elements that enable the vitamin C in the body to regenerate itself.....and vitamin C has been called the Anti–Stress Vitamin. It is a great pity that the Food and Bread Regulations do not stipulate a minimum requirement of wheatgerm in flours other than wholemeal, yet insist on synthetic additives.

Wheatgerm may be obtained from shops, but it is frequently "stabilised" which virtually means "killed". It is

also expensive. Here, at Hele Mill, we do not sell wheatgerm alone.....like the bran, it is all part of our 100% Wholemeal flour.

THE TRUTH ABOUT BREAD.

The Regulations governing FLOUR are not the same as the Regulations governing BREAD: for example, although only two additives may be present in wholemeal FLOUR; wholemeal BREAD may contain almost all the vast array of chemical additives permitted in white flour. Any baker will confirm that, "There is no money in bread", but that bread has to be made to lure customers to buy cakes and other items that do show a profit. The baker, therefore, wishes to make his bread as quickly as possible, and spend the minimum of effort on it. To achieve this he requires a flour which has exactly the same chemical characteristics in every sack, and he has a battery of chemicals that he himself can add. If he has a modern bakery that uses the high-speed Chorley Wood process, this uniformity is even more important. Most bakers prefer their flour to be made from wheat that comes from the vast prairies of America and Canada where the grain is of consistent quality, and has a gluten content that makes it rise well.

Grain used at Hele mill usually comes from local farms where often the chemical constituents of the produce of one field is quite different from that of another field owned by the same farmer. This, (and the retention of all the wheatgerm), is what gives the flavour to this type of flour. However, such flour is a nuisance to most bakers because it requires more time, money and effort; so it is avoided, and a chemicalised wholemeal used instead. This is why the usual wholemeal loaf obtained from a baker is almost as well-risen as bakers' white bread, tastes almost the same as a white loaf, and bears little relation to a home-baked loaf made from a small mill that produces "genuine" wholemeal: unfortunately, many people have only tried this type of wholemeal bread, and then say that they do not like wholemeal. This state of affairs is well summed-up by the following two quotes:

"Eleven million tasteless, branless, germless and synthetically adulterated loaves are consumed daily in this country." Sunday Times 18.12.77.

"British Bread is the most chemically treated in Western Europe." (1974 report of the Technology Assessment Consumer Council)

LOAVES.

There are an infinite number of local names given to loaves of different shapes, but loaves must now bear an indication of the type of flour from which they are made. Apart from "Wholemeal", "Brown" and "White" there is "Wheatgerm" for bread that has an added PROCESSED wheatgerm of not less than 10%, and "Soda" if sodium hydrogen carbonate is an ingredient.

Do not pay any attention to words such as "Windmill" or "Watermill" in the names of bread, they do not mean that the flour has been made in either a wind or watermill, and even if they did it would have no bearing on the nature of the flour; wind and water are merely power sources! Furthermore, flour is often made in a mill other than that indicated on the bag. At Hele Mill all the flour is made on the premises.

There are some names of bread that require explanation:—

HOVIS.

This used to be made from flour with not less than 10% added PROCESSED wheatgerm, and thus came under the heading of "Wheatgerm bread". For decades Hovis have been advertising their bread as made with added wheatgerm, but made no mention that it was made from white flour with added colouring. However, recently Hovis have been using wholemeal flour as well; so Hovis is no longer what it used to be. Look

carefully on the packet and note the list of ingredients.

Hovis used to be always manufactured by bakers who purchased the specially made Hovis flour, but now in this changing world it is difficult to tell who makes what.

GRANARY BREAD.

This is made from white flour with various additives, one of which is always malted meal or malt extract. The "real" look is achieved by scattering a few wheat grains in the mix: it has nothing to do with wholemeal. However there is no reason why wholemeal flour cannot be used, and at Hele Mill we sell "Granary type" flour which is our fine ground wholemeal flour with some kibbled wheat (almost whole grains) added. We do not add the malt.

BROWN.

Brown bread is almost invariably white flour coloured brown with caramel, but since the 1984 Regulations came into force it must have a crude fibre content of 0.6%, which is about a quarter of that found in wholemeal.

WHOLEMEAL WITH ADDED BRAN.

This is what it says it is, but wholemeal flour has a certain proportion of endosperm, wheatgerm, and bran: it is a nice point for discussion – if the proportions are altered by adding bran is it still wholemeal?! Moreover much wholemeal is actually white flour with some of the bran and wheatgerm put back into it. If it is taken out and then put back in can that be called "Added"?

HARD SOFT WHEAT.

Many people are under the impression that English wheat is unsuitable for making bread, but this only applies to bakeries that are set up to use harder foreign wheat. Many of these are now using a greater and greater proportion of English wheat, though it must be realised that bakers do not actually know the composition of what is inside the bags of flour they receive from the mills: they are only concerned that it is consistent, rises well, and can hold the maximum amount of water (water being cheaper than flour!). Moreover, English wheat has been greatly improved over the years, and new strains have been introduced specially for their flour-producing qualities. Many of our customers make excellent well-risen loaves from Hele Mill flour, though it may take some practice. Do not worry if your bread does not rise as much as bakers' bread; they only achieve it by the addition of chemicals and/or incessant practice! If you are told your bread is like a brick say that it is all food, not chemicals and air.

FLYING TOPS.

Sometimes the tops come off loaves, and in the bakery trade these are called "Flying tops". They are caused by any of the following factors, or any combination of them:

1. Insufficient final proof.
2. Oven too hot.
3. Lack of oven humidity.
4. Under-ripe dough.

"FURTHER REVELATIONS" Those who wish to learn more should purchase "Further Revelations". This is a fairly learned work complete with a bibliography and references. It has taken a great deal of research and

time to compile. Price £2 OR FREE at www.ukmills.com

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