

The best thing since sliced bread is a phrase that is unlikely to be uttered by anyone who is involved in the Real Bread Campaign.

In the last few years, industrially produced loaves have come under heavy criticism from the campaign, which is being led by food policy pressure group Sustain. Accusations against the loaves include the inclusion of 'hidden' processing aids, artificial additives, flour improvers, dough conditioners and preservatives.

The latest campaign initiative is the launch of a 'real bread' logo, which can be used by bakers to flag up loaves that are free from artificial additives and made without the use of processing aids.

The group said the only mainstream bread brand that would qualify to carry the mark was Vogel's, which is produced by Real Bread Campaign member Nicholas & Harris.

Sustain claims no artificial additives are necessary for breadmaking, and maintains that the only essential ingredients are flour, water, yeast and salt. Additional ingredients are great, it says, as long as they are "natural", for example, seeds, nuts, cheese, herbs, oils, fats and fruits.

This is fine when baking a few loaves at home or in a small artisan bakery, but is this definition of 'real bread' realistic on an industrial scale?

"This is traditional baking," says Adrian Short, director of clean-label ingredient developer Ulrick & Short. "It's basically how you would do it at home and is still practised in some artisan/craft bakeries. The commercialisation of such a product could be difficult. If you are happy buying your bread each day fresh and are happy it will be stale by the following morning – that's fine – in fact it's the best way to enjoy bread."

Patricia Panel-Dusséaux, marketing manager at cereal ingredients supplier Limagrain Céréales Ingrédients (LCI), agrees that sticking to such principles on the level of an industrial bread line would be difficult.

"It could apply to limited types of bread, but we would say it is more suitable for an artisanal bakery than for standard industrial bread lines. The productivity of such lines needs dough tolerance, at least some processing aids (enzymes) and ingredients such as gluten and malt, for example."

She concedes that it can be done using specific breadmaking processes, for example, a



Industrial production requires processing aids

While Sustain was rolling out its 'real bread' mark, industrial bakers have been working towards other ideals.

Lynda Searby
investigates

Industrial ideals

long bulk fermentation process or if the bread has a short shelf-life.

"You can produce such bread on an industrial line with a high level of hydration (lamination), but you will need to use a specific quality of wheat flour to achieve this," she says.

ADDITIVES UNDER ATTACK

So what are these additives and processing aids being targeted by the Real Bread Campaign, but which industrial breadmakers insist are necessary to ensure consumer acceptability?

Top of the Real Bread Campaign's hit list are processing aids and enzymes. Sustain's bugbear with these is that they do not have to be declared on the label. However, the Federation of Bakers argues that they are destroyed by the baking process and therefore do not need to be listed on the label.

Then there are additives that are often

included in industrial loaves. These include flour treatment agents, which are there to ensure good loaf volume and improve crumb structure, softness and colour. Vitamin C or ascorbic acid (E300) is the most common flour treatment agent used in breadmaking. Emulsifying agents such as E471 and E472e are also present to provide dough stability and tolerance in addition to improving loaf volume and crumb structure and maintaining softness.

Lastly, preservatives are usually added to adjust the acidity level of the loaf to prevent the development of mould spores and other spoilage organisms. Vinegar is the most common form of preservative and calcium propionate (E282) is sometimes used to inhibit the growth of mould spores and bacteria.

As Gordon Polson, director of the Federation of Bakers, points out, none of these ingredients and processing aids are in bread for the fun of ▶

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If consumers want to consume more 'real' bread, they will need to change their eating habits

it – they are in there because consumers have come to expect packaged loaves to be soft and springy and to last more than a day.

"I think you've got to consider why these ingredients are in there and that is to enable consumers to enjoy the product. They are in there for a reason. Consumers want to use a loaf over two or three days so, of course, it has to have preservatives in it. Our members don't hide that and label everything that goes into the bread they produce. They don't have consumers calling up and asking them to reduce the additives in their products."

CLEANING UP THEIR ACT

Consumers may not be picking up the phone and demanding cleaner-label bread, but the last few years have seen a retailer-led drive to clean-up food labels, and the bread industry hasn't been exempt from this pressure.

Even the Federation of Bakers acknowledges that consumers nowadays want fewer additives in their food. It says the bread industry has responded to this demand by developing breadmaking techniques which reduce additives to a minimum.

The plant baking ingredients industry has also been busy working on ingredients and technologies that enable bread manufacturers to make their labels more consumer-friendly.

According to LCI, the main additives that breadmakers are looking to replace are DATA type emulsifiers (E472e), monoglyceride type emulsifiers (E471), sodium stearoyl lactylate type emulsifiers (E481), lecithin (E322), thickeners such as gum and sodium carboxy methyl cellulose and ascorbic acid (E300).

"By eliminating these additives, several challenges arise concerning volume, texture and storage," comments LCI's Panel-Dusséaux. "The process of replacing additives with other functional ingredients must therefore take three issues into account: the technological properties

of the dough, the crumb texture and the taste and texture of the finished product."

LCI claims to have developed additive-free improvers that take account of all these requirements. Its DAFA CL improvers, made from enzyme activities and functional flours, are said to be suitable for making breakfast pastries, packaged bread and puff pastries.

Another supplier offering clean-label improvers is Bakels, with its Quantum range of emulsifier-free bread improvers. The Quantum range is claimed to reduce stickiness, provide dough stability as it is worked off, offer improved volume, crumb, texture and product consistency and enable gluten reduction in some recipes.

Ulrick & Short has created a range of clean-label ingredients that are aimed specifically at baked goods. This includes clean, natural wheat extracts – declared as wheat flour and therefore not declarable on bread labels – that are claimed to help bind, retain and control moisture, thus prolonging shelf-life and reducing formulation costs.

Old ingredients could also be making a comeback. EDME, a producer of malted ingredients, says that one of the very first products used in bread production was enzyme-active malt flour, a bread improver that aids



For productivity, dough tolerance is important



Improvers can reduce dough's stickiness

fermentation and crust formation. It says sales of this ingredient have fallen in modern times as it doesn't have the flexibility of more modern enzyme systems, but points out that it does have the advantage that it can simply be labelled as 'barley malt flour'.

CONSUMER COMPROMISES

These ingredient innovations go some way to helping breadmakers edge closer to the additive-free ideal that Sustain is championing, but the bottom line is that additive-free loaves require some degree of compromise from consumers too.

"We can always try and reduce ingredients, but this depends on how far consumers are willing to change their bread eating habits to accommodate these changes in ingredients," says EDME's James Smith.

It is unlikely any industrial breadmakers will go as far as to attempt to obtain the 'real bread' mark, but given that collectively they command over 80% of the UK bread market (source: Federation of Bakers), they don't really have much need for such endorsement anyway.

In contrast, Smith points out that smaller craft bakers are in need of a voice to help them market their products.

"There is a place for both the Real Loaf producers and the plant bakers in the way that the Campaign for Real Ale has boosted ale drinking without taking much away from the major brewers, whose consumers are more brand driven," he says. "Ultimately, if it goes some way to increase the level of bread production and consumption, this can only be a good thing."

His view is echoed by Polson, who says: "We've always taken the view that all bread is good, and what we should really be trying to do is encourage consumers to eat bread because it's an important part of a healthy, balanced diet, rather than trying to suggest that one type of bread is better than another."

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