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Food additives and ingredients in the bakery industry

Concerning bakery products of desire of consumers are around the world reduced to that these products combined quality, functionality and a worthy ratio of the price and quality. As the competition increases in sector of bread baking, producers have to accept a call and provide emergence of the new bakery production meeting the requirements of the consumer. Innovations in the sphere of ingredients give the chance to producers of bakery products to offer the buyer production which has fine appearance and the improved flavoring properties thanks to the raised nutrition value and quality.

Innovations are cornerstone for the food industry, and the branch of bread baking isn't an exception. In the western camps life expectancy continues to increase, and interest to the products useful to health doesn't weaken. Bakery products also have to correspond to idea of healthy food. Suppliers of ingredients and bakers need to combine the efforts together to look for new and innovative ways of ensuring production of healthy and tasty production which will be an important component of food of consumers and now, and in the future.

Consumer preferences of the modern buyer – bakery products with the smaller content of saturated fats, sugar, and also salt – force the companies working in sector of bread baking, to make a product which is useful to health, has smaller caloric content and contains integral grains and cellulose. Adherents of a healthy lifestyle prefer for breakfast pastries from oat flakes, low-calorie muffins, bars about muesli, crackers and grain sticks, instead of chocolate bars and chips. Thus, the sector of products of healthy food actively extends.

At a bread choice consumers prefer products with the high content of cellulose that led to emergence of products with integral grains and with several cereals in structure. Producers of bread are faced by a difficult choice – how to increase as a

part of a product amount of cellulose and thus not to worsen quality and not to reduce a product expiration date.

Currently, there has been increased interest in the bakery ingredients to the cereal-based, such as, for example, cereal and barley, which are rich in beta - glucan.

Proved that beta-glucan, a natural soluble fiber helps to maintain normal cholesterol levels. Ingredients such as oats and barley, exhibit excellent taste characteristics and moisture-retaining and thus improve the nutritional value of bread.

It was recently released a few new products that take into account the ability of cereals regulate cholesterol.

Despite a large number of new products with the high content of the cellulose, appeared in the market lately, many buyers, and especially children, still prefer taste, texture and appearance of traditional white loaf. According to research Defra Family Food 2008 data, in Great Britain of 76% of sold bread it is the share of white loaf. Suppliers of ingredients and bakers offered the option of a solution. The new ingredients containing cellulose and a flour of the premium, are exposed to special processing that the bread enriched with cereals (for example, bran) looked as usual white loaf. This production looks as usual white loaf and has similar texture, but thus possesses useful qualities of wholegrain bread.

More and more technological food additives such as enzymes used in the baking industry as essential ingredients in the development and improvement of the formulation, for example, to maintain the softness of the crumb of baked goods for the entire shelf life.

When included in the new formulation enzymes such as glucose oxidase, a lipase and a xylana help improve the dough and improve the quality of bread. Other enzymes, such as lipoxygenase, will help to ensure that the crumb was more white and familiar to consumers and merchants. Many enzymes are found in conventional ingredients for bread, such as wheat flour and the flour from other grains. Further introduction of enzymes in the baking process, they almost completely destroyed by high temperatures, which allows manufacturers to comply with the output from the "clean" label on 100%. Under existing rules, enzymes, which are used as food additives

technology currently can not be listed on product labels. Thus, the products meet the category of "clean label".

In recent years in connection with increasing interest of consumers to a healthy lifestyle, in the market products "free" from separate components, i.e. not containing certain connections, for example, products without lactose or without gluten are in great demand.

In bread baking gluten plays an important role, it provide easy porous structure of bread which holds a product form, and doesn't allow carbon dioxide to leave dough. The flour which isn't containing gluten, doesn't allow creating the elastic matrix which is a basis of habitual white loaf. The aspiration of bakers in response to needs of the buyer to make grain production without gluten leads to that the texture of bread becomes heavy and more dense. Development of new compoundings without proteins of gluten sets a complex task for bakers who on the one hand, have to make quality production, and on the other hand, to get the profit to justify costs of production.

There is a large number of compoundings for production of bakery production without gluten. Various ingredients – from potatoes, rice, a corn flour to vegetable oils and gum which as it is considered, can help with creation of "excellent" bread without gluten proteins are thus used.

Literature:

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