

Saudi Arabia craving sweet products



Rapid growth of the population, rising household incomes and increasing willingness to spend are stimulating demand in the Saudi Arabian food industry. A growing interest in new, high-class products and convenience offers are characteristic of the consumer behavior of the country's 30 million or so inhabitants. Over 75% of the food comes from abroad, European and North American products being especially popular.

In the field of baked goods, however, the trend is toward sweet products like pound cake, brownies or doughnuts rather than rustic specialties such as French baguettes or Italian ciabatta. Of 166 new bakery products launched on the Saudi Arabian market in recent years, 24% were cakes, pastries and sweet goods and only 15% were bread and small bread products (see table, page 112).

PREMIXES AND READY MIXES

The simplest and safest way to start the production of pastry goods is to use ready-mixed flours. In the initial test phase, this option offers the best means of assessing the acceptance of the new range, especially for small artisan bakeries.

But in the long term, such ready mixes are not an economical proposition. Industrial bakeries that want to use their own basic materials such as flour and sugar generally decide in favor of premixes with usage levels of 10% to 30%.

Ordinary bread flour is not optimally suitable for the production of pastry goods, because its protein content is too high. With high gluten content, cake dough becomes too firm and does not achieve the desired light, fluffy structure. It is also important for cake production that the flour does not contain ascorbic acid, which would strengthen the dough and batters in a manner unsuitable for cake.

For many years, Mühlenchemie and DeutscheBack have collaborated closely in developing special convenience products that help flour processing plants to produce standardized goods simply.

One focus of their work is always on starch as a raw material, in order to reduce the protein content of the flour. Although starch is an indispensable ingredient of many recipes for pastry goods, bakeries in the Arab countries are not always familiar with it as a basic constituent.

But quality starch with good baking properties and defined

by Martina Mollenhauer and Thomas Schindler

Market for baked goods such as pound cake, brownies and doughnuts is growing significantly

viscosity improves the structure of the crumb and regulates the water absorption of the dough. If this raw material is missing completely or its functionality is not properly adjusted, a number of errors can occur. Typical consequences are sensory deficiencies and differences in volume. If the proportion of flour or the protein content is too high, the crumb becomes tough and dry. On the other hand, if too much starch is used, the network is inadequate and the crumb becomes fine and friable.

Premixes like *TopSweet (American) Muffin Mix*, *TopSweet Sponge* and *TopSweet Poundcake* from DeutscheBack contain highly functional starch, which helps to prevent such faults in the products.

DEFINED QUALITY

The importance of defined raw material properties can also be seen from baking powder and emulsifiers as constituents of the recipe. Bakeries that buy these ingredients from different suppliers and add them separately often have to contend with massive fluctuations in quality, whereas good baking premixes with a balanced mix of raw materials guarantee standardized properties.

In the case of pastry goods raised with baking powder, defined oven rise, for example, is essential. The ideal answer is baking powder with controlled functionality, so that pre-rise and final leavening is precisely determined and the raising agent does not react until a temperature of 60 degrees C is reached in the oven. If there is too much oven rise, the dough may spill over the top of the pan, which spoils the appearance of the goods and also results in loss of raw materials and an increased need for cleaning. If there is too little rise, no shred forms, and this again is regarded as a fault by consumers.

The perfect combination of raising agents results in good

Table 1: New grain-based product releases in Saudi Arabia according to category

Category	Number of variants	Number of variants (%)
Bread and bread products	24	14.5
Cakes, pastries & sweet goods	40	24.1
Pasta	32	19.3
Savoury biscuits & crackers	6	3.6
Snack/cereal/energy bars	9	5.4
Sweet biscuits & cookies	55	33.1
Total	166	100

Source: Mintel GNPD retrieved Nov. 1, 2010

shape and pure flavor, whereas unbalanced mixtures may cause a phosphate taste. Emulsifiers, too, should preferably be added through a premix in hot countries. At high temperatures these fat-like substances may melt and form lumps, which mean they can no longer be dosed. The emulsifiers used in DeutscheBack premixes are in powder form and therefore protected against structural changes caused by heat. The emulsifiers stabilize the doughs and maintain the whipped volume. If the emulsifier or the dosage is incorrectly chosen, the cake

may collapse after the increase in volume brought about by the raising agent.

NO HYGIENE PROBLEM WITH DRIED EGG

Yet another problem that arises in hot countries is the use of eggs. Since there is always a risk that raw eggs will go bad, and in particular that they may be contaminated with salmonellae, special precautions have to be taken in respect of storage, the cold chain, processing and cleanliness.

Those who wish to avoid this hygiene risk are on the safe side with DeutscheBack’s premixes for pastry goods that contain pasteurized dried egg: neither special handling nor a separate working area is necessary for using them.

A fairly large section of the population in the Arab countries is vegan. Since most recipes contain egg as a colorant, emulsifier and stabilizer, the choice of cakes is limited. In *TopSweet Eggless Sponge*, DeutscheBack offers a product suitable for a vegan diet that can be used for a number of purposes, for example to make a flan base for decorating with fruit or a filled roll.

PROLONGING THE SHELF LIFE

In countries with a hot climate, special attention has to be given to the aspect of shelf-life. The higher the temperature, the

faster baked goods dry out. Nevertheless, consumers in the Arab countries expect wrapped bakery products to have a shelf life of at least four weeks, too.

This demand presents the baking improver industry with a number of challenges. In principle it is possible to prolong the shelf life effectively with functional systems containing enzymes, but the efficacy of the enzymes decreases rapidly as the fat and sugar content increases. In recent years there has been intensive research into so-called osmotolerant enzymes that are also suitable for sweet bakery products containing fat. The whole *TopBake Fresh Cake* line influences the softness of the crumb and thus the mouth feel and freshness, and depending on the modification it can also result in larger volume.

The choice of a product from the *Fresh Cake* line will depend on the goods to be baked. If the chief aim is to delay staling, the basic range will be used. *Fresh Cake Plus* is the product of choice if the intention is to increase the volume, too.

MEETING CUSTOMER WISHES

Finally, a wide range of additives can be used in industrial baking to meet the sophisticated demand for freshness and wrapped pastry goods with a long shelf life.

The use of premixes enables manu-

facturers of both fresh and wrapped pastry goods to work with functional compounds that are carefully adjusted to each other. The larger, non-critical raw materials like flour, sugar and fat can be used in a financially attractive manner from the company's own stocks. Special requirements in respect of the choice of raw materials, label declarations or fla-

vor can be met if the customer wishes. Basically, the motto must be "as little as possible, as much as necessary." **WG**

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Expanding retail trade

The sales volume of the Saudi Arabian food market has increased rapidly in recent years. One of the main reasons for this development is the continuing expansion and modernization of the retail trade. According to the economic information service *gtai*, the sales volume of the retail food trade in 2013 is estimated at \$33 billion, some 56% of this still being achieved by small neighborhood shops known as *bakalahs*. The country's 800 supermarkets had a market share of 26% in 2013, and the hypermarkets like Panda, Al Othaim, Carrefour, Lulu and Danube achieved 18% in the food sector. In 2013 alone, the number of hypermarkets increased from 20 to 90.