Hungarians crave quality bread

by Martina Mollenhauer and Michael Saathoff

White hearth remains Hungary's uncontested number one

Hungarian consumers show little inclination to experiment when it comes to buying bread. They generally choose traditional, light-colored wheat bread and prefer good, inexpensive standard products with a soft-textured crumb and large volume.

Wheat has always played an important role in Hungary – in respect of growing, processing and consumption. The average bread consumption of Hungary's population of nearly 10 million is estimated at about 50 kilograms per person per year. Kenyér – the usual Hungarian word for bread – is eaten at nearly every meal. The declared favorite is a yeast-risen loaf made from light-colored wheat flour; mixed loaves containing rye, wholemeal flour, grains or seeds are far less popular.

Kenyér is often bought as a one-kilogram loaf; in the home it is put on the table broken in pieces rather than sliced.

Many Hungarians make a daily trip to the baker, so there is no real concern about long shelf-life bread.

HEARTH BREAD INSTEAD OF PAN LOAVES

Classic kenyér is baked as free-standing hearth bread instead of in pans. In this method, the weighed dough portions are placed directly on the racking units or in round or oblong fermentation baskets when the dough has been made up. After final proofing, the portions are baked as separate, free-standing loaves.

Unlike soft-sided loaves that are placed so close together in the oven that the sides touch and the individual pieces therefore stabilize each other, hearth loaves bake uniformly all over, and the crust is just as firm and crisp on the sides as on the top.

Hearth-baked loaves are more difficult to produce than white pan loaves as they demand a certain amount of know-how and skillful handling.

The following is a typical recipe from the Hungarian Baker Association, "Magyar Pékszövetség," for a traditional white loaf with a market share of 65%:

White bread
BL 80 flour: 100 %
Yeast: 1 %
Salt: 2 %
Ascorbic acid: 0.004 %
Water: 56-60 %

Farmhouse bread – number two on the popularity scale with a market share of 18% – is given a rather more rustic note

by mixing wheat flours of the types 55 and 80:

Farmhouse bread
BL 80 flour: 50 %
BL 55 flour: 50 %
Yeast: 1 %
Salt: 2 %
Ascorbic acid: 0.004 %
Water: 56-60 %

SENSITIVE TO PRICE, QUALITY

Although Hungarian consumers are extremely price-sensitive when buying bread, they nevertheless expect attractive loaves with a well-developed crust, an elastic, soft-textured crumb and a pleasant, full flavor.

The Hungarian baking industry, still characterized by a large number of small artisan bakeries, has plenty of experience in adjusting to its customers' wish for consistent, standardized product quality. But problems arise when the baking properties of the flours differ widely because of fluctuations in the quality of the crops, which has been the case in recent years.

Moreover, fluctuations in product quality can occur at any bakery if there are personnel changes or different technical equipment is acquired.

CORRECTING FAULTS IN PRODUCTS

Possible quality problems can be solved easily by taking suitable measures for treating the flour and preparing the dough. The following is an overview of the most common faults that occur in the production of white hearth bread.

Problem: Deforming of the loaves.
Causes: Inadequate stability of the dough, inadequate oxidation, softening of the dough due to excessive amylase activity of the flour; over-fermentation or over-mixing.
Solution: Increase treatment with ascorbic acid. If the amylase activity of the flour is too great, inhibit enzymatic activity by lowering the pH with lactic or acetic acid. Adjust the fermentation and mixing process if necessary.

Problem: Low yield.
Cause: Low water absorption of the flour.
Solution: Add hydrocolloids, vital wheat gluten, guar gum powder or enzyme compounds (e.g. EMCEbest WA Pure, EMCEgluten Enhancer) to increase the water absorption capacity of the flour.
Positive side effect: Longer shelf-life.

Problem: Poor break and shred.
Causes: Dough too firm, fermentation time too long, ambient air too moist during fermentation.

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Solution: Add more water, mix more thoroughly. Optimize dough properties and oven rise through specific addition of dough-softening hemicellulase (e.g. Alphamalt HCC) or lipases (e.g. Alphamalt EFX Mega).

Further option: Allow dough portions to dry a little before placing them in the oven.

Problem: Too little splintering of the crust.

Causes: Too low enzymatic activity, dough processes too cold/too firm, dough resting time between mixing and making up too short, too little steam.

Solution: Increase the overall amount of enzymes used, especially amylases and hemicellulases.

Problem: Crust too light in color.

Possible cause: Low-enzyme flour or flour enzymes too weak; temperature too low.

Solution: Add amylase or malt flour to boost the Maillard reaction and intensify browning.

Problem: Crust too dark in color.

Cause: High-enzyme flour, temperature too high.

Solution: Add dough acidifiers such as acetic acid to inhibit the activity of the enzymes. But do not add sour dough containing enzymes. Adjust baking temperatures, if necessary.

Problem: Crumb disintegrates when cut.

Cause: Too little enzymatic activity, inadequate mixing of the dough.

Solution: Stabilize the crumb structure by adding lipases (e.g. Alphamalt EFX Mega). Increase mixing time in order to make the dough more homogeneous and supple.

Problem: Crumb too firm.

Causes: Gluten too stiff, too little added water.

Solution: Soften the dough and increase its elasticity with hemicellulases or small amounts of proteases. Add more water.

Problem: Too little volume, poor stability.

Causes: Weak gluten (too little and/or inferior quality).

Solution: Increase the amount of flour improvers to stabilize the dough and improve its processing properties and baked volume. Shorten mixing time. In the case of frozen doughs, ensure adequate oxidation with ascorbic acid and also oxidases if necessary. Allow frozen doughs enough time to thaw, especially in the critical transition stage up to 4 degrees C. WG

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