

# Stopping bread waste

IN AUSTRIA AND GERMANY IT IS USUAL THAT SALES OUTLETS RETURN THEIR UNSOLD BREAD AND BAKERY GOODS TO THE PRODUCER IN THE EVENING



++ author: Klaus Bernhard

This text is based on a lecture held at the 3rd BOKU Waste Conference at the University of Natural Resources and Applied Life Sciences, Vienna, April 2009

✚ The wasting of 10 to 25% of fresh baked goods is an ethical as well as an economical problem today. Bread has always been a valuable item – either home baked or purchased from the baker – although much cheaper in comparison to other foodstuffs. It is therefore quite plausible that 200 to 300 years ago 90% of the food requirement was covered by bread. Nowadays, a rapidly decrease in bread consumption can be observed which can be directly correlated to increasing economic wellbeing. The reversal of the trend is probably also a result of the same: consumers today can choose from a large variety of goods and do not always have to take into consideration the higher prices of rolls compared to bread.

It should therefore be emphasized that we no longer consider foodstuffs as a precious commodity; indeed, somewhere in the last 20 to 30 years we must have crossed the boundary of feeling bad when being forced to throw food away, especially bread, to not worrying. Former generations considered it a sin to throw food away.

Consumers' attitude today is that everything should be available all the time. Shop managers as well as self employed bakers think the whole range of products has to be on sale until closing time – and opening hours are being extended. Germany and Austria probably have the largest available assortment of baked goods. Indeed, an average bakery produces up to 200 articles a day! Germans are proud of their variety of more than 300 types of bread and more than 1,200 different rolls, not including sweet products made from fine yeast dough or pastry.

Every year, in Austria, an estimated amount of 60,000 to 65,000 tons of bakery goods are thrown away – not including private waste! Although no hard figures are currently

available (empiric studies are being carried out by the Institute of Waste Management, BOKU – University of Natural Resources and Applied Life Sciences), in accordance with internal extrapolation, branch experts agree that this figure is probably reliable. In 2008, Austrian mass media reported an annual amount of 70,000 tons (as all articles were published within a period of a few weeks, it can be assumed that all were referring to the same sources). Considering an annual per-capita-consumption of about 70 kg in Austria, one million persons could be fed with the wasted bread; one eighth of the total number of inhabitants! In an attempt to confirm this estimation two approaches should be applied. Bakeries and their retail outlets should be investigated on the one hand and supermarkets and discount stores on the other. By means of extrapolation, branch experts have estimated that the average wastage of bakery goods at bakers' shops amounts to approx. 10%. In a study carried out in 2004, Felicitas Schneider, a member of the Institute of Waste Management, reported that an average Viennese bakers' shop produces approximately 38 kg of daily waste, which amounts to 11.6 tons per annum. On a calculation of about 500 baker's shops in Vienna, this would correspond to a total of 5,800 tons; and considering Vienna as representing approximately one fifth of the Austrian population, this would amount to nearly 30,000 tons.

With regard to wastage from supermarkets, no empiric data is available at the present time. The Austrian Bakery Association sent a questionnaire to its members but the results obtained were not representative and did not match scientific standards. However, 35% of the outlets reported a growing trend in shop wastage with 18% showing a decrease. Bakery owners and managers report that rates estimated for

shop wastage returned by the super markets – discounters do not usually send back waste bakery goods – vary from 15, 20 to 25%; one baker even reported a rate in the range of 42%. Reinhard Kainz, secretary general of the Bakers' Guild for the Austrian Chamber of Commerce, considered a 25% return from supermarkets as normal. On average it may be estimated that Austrian supermarkets return approx. 20% of baked goods delivered every day. One baker commented, "We are the only branch of trade that lends their goods!" Indeed, no charge is made for the returned goods, the total cost corresponding to the difference between the costs of freshly delivered goods minus the total incurred by returned unsold products.

Given that bakers' shops feature an average spoilage of 10%, supermarkets 20%, and that approx. 40% of bakery goods are sold in bakers' shops and 60% in retail-chains, this would imply that approximately 75% of total shop wastage stems from supermarkets.

Bearing in mind that the commonly quoted figures for annual consumption of bakery goods, for example, in Germany is roughly 80 kg per capita, for Austria 70 kg – this actually refers to the goods produced, not eaten! Figures obtained should therefore be correlated. Experts have established that the actual amount of goods consumed in Germany is 56 kg; an extrapolation based on the German National Food Consumption Study II involving 16,000 final consumers, reported a finding of 57 kg.

### Ethical impact

The Austrian documentary film, "We feed the world", released in 2005, made the bold statement that the amount of bread thrown away in Vienna would be sufficient to supply Austria's second largest city, Graz with bread. Although no proof of this statement has been provided, it would seem to be plausible. It is, however, a proven fact that throughout the world nearly one billion people are starving, 24,000 dying of hunger every day.

### Economical impact

A considerable impact is produced not only by the wastage of raw materials used in the production of bakery goods subsequently disposed of, but also by other production means including labor, infrastructures, production plants and machines, trucks, all of which could be reduced by at least 20%! The costs incurred in collecting and removing the waste should also be taken into consideration: collection from the sales outlet, controlling and counting, separation from other waste, and so on. In the previously mentioned (not representative) poll, bakeries reported how the waste was dealt with: Nearly one quarter referred to how frequently high costs were involved in removing returned bakery products. Alternatively, more than 40% referred to making money out of their returned products; the remainder reported neither costs nor gains.

### Attempts for optimization

An increasing number of bakers are no longer willing to accept the enormous return quotas and are taking steps to cope with shop wastage in different ways. The company Ring – Die Bäckerei from Linz, Upper Austria, has set up a purpose developed project to reduce shop spoilage. Ring is a traditional supplier, distributing goods via different channels: discounters, supermarkets and approximately 70 shops of their own outlets run under two brand names: Ring and Salzkammergut-Bäckerei. The majority of examples and figures reported below were provided and previously authorized by Ring.

### Raising awareness

An effective starting point is to create awareness in staff, shop and restaurant managers as well as final consumers of the matter of wastage. At Ring, shop assistants are constantly trained to explain to their customers, for instance, that a special product has run out of stock, but that there are similar ones on sale. Two years ago, a bakery in Southern Tyrol edited a brochure instructing final consumers as well as hotel and restaurant managers how to store bread to keep it edible for some days and suggested possible uses for old bread.

### Marketing activities

For several years, attempts have been made to have shops sell only unsold goods from the day before at remarkably lower prices. However, in the long run these shops enjoyed scant success and disappeared. Selected bakeries also sell special goods during the last half hour of shop opening at half price.

Ring supports its attempts to reduce wastage by active marketing means. The shop furniture has been changed. For instance, in the afternoon display baskets for rolls are smaller, ▶

ADVERTISEMENT

## German Master Baker/Bachelor of Business Administration (34)

with several years of international experience  
(4 years in Russia, 2 years in Switzerland)

### will assist you and your company in

- Management assistance
- Marketing
- Personnel training
- Personnel management and education
- Product development and launch
- Product training
- Production optimization, cost control
- Hygiene assurance

Russian language spoken

**Contact: [german-baker@web.de](mailto:german-baker@web.de)**



therefore creating an idea of being full although there are only a few rolls left. Staff are also being trained in the use of strategic placing of goods on the shelves in order to create a pleasing impression even if few products are left. A telephone pre-order-service has been set up: on his way to the shop, the consumer can call and tell the assistant what he wants. If the product is not available, it will be baked on the premises. Pre-order clients are given a 5% discount. Lastly, an “evening campaign” has been set up whereby one hour before closing, on purchase of at least 5 € of items, the customer can select either a loaf of bread or a snack or two rolls free of charge. The management reports how customers are happy to get something for free. In this way, Ring increases the average single purchase and gets rid of products they would otherwise be probably throw away a few minutes later.

#### **Withdrawal from retail**

In the Tyrol, a large bakery has stopped delivering to supermarket chains and these have been unable to find another baker in the near surroundings. Currently, a large Viennese bakery transports baked goods by semi-trailer truck more than 500 kilometers westward, night after night. Further down the line, the goods are reloaded onto six smaller trucks, which ship them to the shops. Ring, likewise, withdrew from supplying supermarkets not willing to sign an agreement of limited returns. Although 30% of their overall turnover had originated from the latter, they had also contributed to approx. 70% of the wastage.

#### **Controlling**

To avoid the problem of old bread, Ring has also optimized data processing. The software developed applies data referring to past years and periods and compares numerous parameters such as specific day, season, weather etc. before recommending quantities for an order that can subsequently be adjusted by the shop manager or the central office. The increased shifting of the baking process to the outlets, where

the staff can bake off frozen products on demand, also contributed to a considerable reduction in the amount of returned baked goods.

Local shop managers are consequently confronted with figures and results obtained. When placing orders for the next day, unsold products have to be specified. The return ware is converted to cash value at retail prices. At the end of the month the management personally writes a letter to each single outlet, reporting its return quota. The executives also personally talk to the shop managers. Wastage is an issue dealt with at all sales meetings.

#### **Conclusion**

By the above means, Ring was able to reduce the weekly shop-spoilage-rate from 20/25 tons in 2006 to 6 tons in 2007 (withdrawal from supermarkets) and 4 tons in 2008 (start of the spoilage lowering project). The management is convinced that through this procedure of systematic lowering of wastage quota, Ring will be able to cover the rising costs of raw materials for the next three to five years and thus avoid raising prices; they claim that they were the only bakery in Upper Austria to not raise their prices last autumn. Meanwhile, Kaiser rolls, a core product of every Austrian bakery, are sold 10% cheaper in Ring outlets than at other bakers' shops in the City of Linz.

Immediately following implementation of system changes, Ring's turnover initially fell. However, it has now risen to higher levels than ever before, with gains increasing right from the start. Thanks to the wastage reduction project, last year Ring saved more than 400,000 Euros in their own shops alone.

Mrs. Christine Schirl, general manager of Ring, confirms a good degree of customer acceptance of the new strategies and states, “Initially customers complained and were disappointed that they could not buy their favorite product; now the majority is proud to take part in this project and contribute towards saving resources.” +++

EUROPAIN



INTERSUC  
SUCRE ET CHOCOLAT

6-10  
MARCH 2010  
Paris Nord Villepinte  
Exhibition Center  
France



ENCRE BLEUE - 04 91 08 43 27

*International Exhibition*

**Bakery, Pastry, Ice-Cream,  
Chocolate and Confectionery**

Order your free pass at:  
**[www.europain.com](http://www.europain.com)**

Your access code: BBISC

FOR FURTHER INFORMATION: IMF GMBH

Tel: +49 (0) 221 13 05 09 07

Email: [info@imf-promosalons.de](mailto:info@imf-promosalons.de)



# From silo to truck

