

The projects BIOFAIR and BIOFAIR II are funded within the “Waste Prevention in Vienna“ INITIATIVE. In the course of these projects, the base has been created that allows for an increased employment of organic food products in Viennese canteens, so that convenience products are replaced by freshly cooked organic ones. The result documentation and publishing should motivate further canteens towards a similar increase of the organic food share.

BIOFAIR I & II Projects

Support Role of Canteens towards Increasing the Organic Food Share by Replacing Convenience Products with Organic Fresh Products

Why Organic Food Products?

Food originating from controlled organic crop growing offer a variety of advantages. The most important of these refers to soil and groundwater protection by banning the use of synthetic chemical pesticides and fertilisers. Compared to conventionally produced food, organic food contain less toxic substances and more nutrients. Further, natural livestock husbandry considers also the needs of the animals. Purchase of organic food originating from the region results in shorter transport paths and thus to less CO₂ emissions.

Increased employment of organic food maintains, respectively, creates jobs in organic agriculture. Replacement of convenience products by freshly cooked dishes of organic ingredients secures not only jobs in the canteens but also does save money.



Picture 1: Comparison between organic iceberg lettuce (left) and the convenience product (right)



Picture 2: Comparison between organic rolls (left) and the convenience product (right)

How to increase cost-neutral employment of organic food products?

Increased employment of organic food products is relatively simple to achieve, but it often results in a food cost increase. A possible cost reduction is offered by replacing often expensive convenience products by in-house prepared meals of organic food ingredients. This way, both money is saved, and the organic food share is increased.

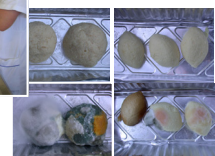
An ecological...



...economical...



...and qualitative assessment



How is assessment carried out?

The convenience product assessment is carried out with reference to the following three aspects:

Ecological: The different environmental impacts of convenience and organic food production are assessed by means of eco-balances.

Economical: Meal preparation costs (purchase, personnel and running costs) are surveyed, registered and compared.

Qualitative: Differences owed to ingredients, taste, self-decomposition and heart frequency variability serve as quality standard.

Ecological Assessment

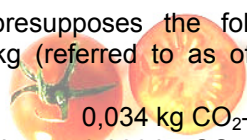
Eco-balances developed in the BIOFAIR project, referring to organic iceberg lettuce, apple sauce and curd cheese dumplings, show more positive environmental effects in favour of organic than of the conventional products.

Example Tomatoes:

Tomato production presupposes the following energy demand per kg (referred to as of CO₂-equivalents):

- organic agriculture: 0,034 kg CO₂-equ.
- conventional agriculture: 0,086 kg CO₂-equ.
- heated greenhouse (organic or conventional): 9,3 kg CO₂-equ.

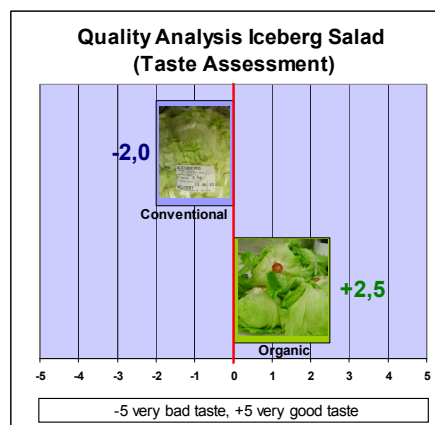
Organic tomatoes require less than half the energy needed for conventionally produced ones. Greenhouse-grown tomatoes require even the 200-fold of this energy amount. This proves the relevance of the correct season of purchase!



Lit.: Corinna Taylor, dissertation, Uni Gießen, 2000; Foto: BMLE/Wilhelm

Qualitative Assessment

Qualitative assessment proves significant advantages in favour of organic food products. As of taste, organic iceberg lettuce and apple sauce are superior to the conventional products. Main reasons for the poor assessment of the conventional iceberg lettuce (-2) are its wilted appearance and the sourish taste.



Economical Assessment

In the BIOFAIR II project, 13 of the 21 investigated dishes prove a financial saving potential between - 77 % and - 8 %. 8 food products indicate a price increase of +12 % to +169 %. Accumulated costs are significantly effected by the purchase costs.

Dish	%	Dish	%	Dish	%
vegetable aspic	-77 %	cole slaw	-45 %	stewed apple	+16 %
spinach dumpling	-70 %	potatoes, cooked, peeled	-26 %	semolina dumpling	+18 %
curd cheese dumpling	-63 %	iceberg lettuce	-26 %	mashed potatoes	+25 %
greaves dumpling	-58 %	sugared pancakes	-13 %	curd cheese strudel	+26 %
potato fritter	-56 %	Vegetable balls	-8 %	ham roll	+30 %
bread dumpling	-47 %	eggs	+12 %	replacement of beef in place of calf	-22 % to +7 %
raw potatoes	-46 %	potato dumplings	+15 %	Flour	+132 % to +169 %

With reference to ecology, economics and quality, the results prove the employment of organic food products in canteens to pay off in comparison to convenience products.

Appropriate purchase policy, consideration of seasonal and regional origin as well as of in-house preparation of selected dishes enable a feasible increase of organic food share up to 30 %.

Convenience product replacement by in-house cooked dishes of controlled organic grown ingredients supports employment and saves money.

Project execution:

RRRRMMMAAAA
Initiative for promotion of environmentally compatible and sustainable resource management
Resource Management Agency

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Participating canteens:

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Lainz Hospital, Floridsdorf Hospital
KWP: House Neubau, House Tamariske, House Trazerberg