NOVANIMAL

Innovations for a future-oriented consumption and animal production

NOVANIMAL KEY FINDINGS

HOW TO EAT LESS MEAT – BY CHOICE AND WITH CULINARY ENJOYMENT

Priska Baur, Jürg Minsch

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ZHAW Zurich University of Applied Sciences

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AUTHORS
Priska Baur, Jürg Minsch

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ZHAW Zurich University of Applied Sciences

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Consuming animal products on a moderate level is a robust strategy for sustainable and healthy nutrition. Innovations addressing out of home consumption are considered very effective in reducing resource use of nutrition and making eating habits healthier.

IT'S THE CONSUMPTION ...!

Agricultural production and food processing are both relevant for sustainable and healthy nutrition, but the most powerful influence is consumption. In particular, moderate consumption of meat and animal products is essential for a sustainable diet.

FOCUS: MORE THAN 50 INNOVATION IDEAS FOR GASTRONOMY

In Switzerland, about half of meat and dairy consumption is out of home. Thus, we propose more than 50 NOVANIMAL innovations to evolve more plant-based eating habits in out of home consumption. This includes innovations addressing the meals on offer (e.g. not only replacing meat with substitutes but also offering authentic vegetarian dishes), the enterprises in the catering industry (e.g. recruiting specialists for creative and appealing vegetarian cuisine) and in vocational education (e.g. substantial revision of the curricula and teaching materials). For an overview of all innovations, refer to NOVANIMAL (2019) and Baur & Minsch (2019).

A FIELD EXPERIMENT AND PROMISING INSIGHTS

Selected innovations were implemented and tested in the NOVANIMAL field experiment in two university canteens over the course of three months (datasets: 26,340 meals sold, choice patterns of 1552 canteen visitors). The results are promising: the quantitative and qualitative amelioration of vegetarian and vegan meals (veg^2), combined with other measures - e.g. abolition of a specific veg^2 menu line, not advertising as veg^2 - significantly decreased the share of sold meals containing meat. For women, the percentage dropped from 39% to 28%, and for men from 65% to 50%. No negative effects on customer satisfaction and operating results were found. Life cycle assessments showed that the environmental impact was significantly lower.

Although 96 percent of the regular canteen visitors ate meat, they were open more often to choosing a vegetarian or vegan meal. Only 2% never chose a meal in either of these categories. Further, clear differences between men and women were apparent. Meal choice patterns revealed that two-thirds of males, but only one-third of females, were 'meat-eaters' or 'meat lovers' (definition: more than either 50% or 75% of the dishes chosen contained meat or fish). Moreover, in the survey carried out during the field experiment, women responded more frequently that they were concerned about the importance of diet for their health (F: 55%, M: 43%), for the environment (F: 44%, M: 31%), for farm animals (F: 42%, M: 29%), and for the people who work in food supply chains (F: 27%, M: 19%).

YET THERE ARE OBSTACLES…

Further results from NOVANIMAL research – such as qualitative interviews with chefs, restaurant owners and managers, and vocational teachers and apprentices (chefs and hospitality specialists), quantitative surveys (canteen visitors, consumers, chefs), and analyses of teaching materials and literature reviews – reveal the 'soft' and 'hard' constraints concerned with implementing innovations in out of home consumption.

'Soft' (sociocultural and psychological) constraints are:

- The 4 Ns: meat is 'natural', 'normal', 'necessary' and 'nice'.
- Meat is perceived as the most valuable item on the plate.
- Meat is the rule, vegetarian the exception and vegan a nuisance.
- Veg^2 is cooked and marketed for the minority of guests with veg^2 lifestyles.
- 'Regional' products are preferred, which for Switzerland means meat and dairy.
- Positive image of animal husbandry and animal 'welfare' in Switzerland.
- Norms and beliefs concerning a balanced diet, both each day and for each meal.
- The meat chef is hierarchically the most important person in the kitchen.
- 'Male chefs cook for male guests'.

‘Hard’ (economic) constraints are:

- The expectation that veg² dishes should cost less.
- Veg² cuisine is more demanding and time consuming.
- The lack of skills and knowledge in preparing attractive veg² meals.
- Well-established supply chains for meat and dairy (the lock-in effect).
- Meat which is on special offer dominates (‘Aktionsfleisch’).

HELPFUL TRENDS AND SUGGESTIONS

Although various megatrends, such as gender shift, the importance of health, scarcity of natural resources on a global scale and urbanization, are in favour of the proposed innovations, additional efforts are needed to achieve a breakthrough. NOVANIMAL concludes with suggestions for decision makers in politics, in economy (agriculture, food processing industry, gastronomy, food supply networks), in vocational education, in the Swiss Society for Nutrition and in research. Selected suggestions for Switzerland are:

- **Politics:** Abolition of misleading incentives such as promoting meat and milk production and consumption; addressing the challenge to adapt supply chains to a lower domestic demand for meat and dairy products.
- **Farming/agricultural sector:** Adapting animal production to local ecosystem boundaries, i.e. a significant reduction of livestock; in particular, stopping investment in poultry production.
- **Food companies:** Powerful Swiss food companies, such as Coop and Migros, Switzerland’s largest meat processors, traders, importers and sellers, are called upon to assume more responsibility. Instead of pushing animal product consumption, they should reorient their business strategies towards more plant-based nutrition.
- **Gastronomy:** Gastronomy still offers veg² dishes for ‘vegetarians’ and ‘vegans’. This is a fundamental misunderstanding and a mistake because it is not only the small minority of vegetarians/vegans that choose veg². The demand for veg² is greater than perceived by gastronomy. However, the offer is quantitatively and qualitatively unsatisfactory. Veg² dishes should be cooked for flexitarians and meat-eaters. The time has come for a leap in

quality of veg² dishes. This requires more professionalization and greater specialization in the kitchen.

- **Food supply networks:** Production of a greater variety of high-quality, plant-based precursors; new supply networks for plant-based foods.
- **Vocational education:** Improving education is not enough, and a new apprenticeship for veg² cuisine is needed. From the very start, this facilitates the recruiting of highly motivated people who will become the veg² professionals and specialists of the future.
- **Swiss Society for Nutrition:** The health and sustainability potential of an increasingly plant-based diet has not yet been recognized. Current Swiss dietary guidelines should be reviewed against the background of new scientific findings. Results should be translated into recommendations considering current effective eating habits and effective communication.
- **Research:** Today, publicly funded agricultural research in Switzerland is guided by the Federal Office for Agriculture. A shift to more open and independent research into food systems is necessary. This would contribute to additional relevant research outcomes concerning, for e.g., consumer preferences, food security and food safety, and human and animal health.

CULTIVATING THE 'BEDÜRFNISFELD' NUTRITION

The consumption of less meat and other animal products plays a decisive role on the path to sustainable and healthy nutrition. In particular, larger caterers and community gastronomy could pave the way for more plant-based eating habits. Today, gastronomy still caters for a 'male clientele'. If gastronomy wants to profit from the increasing purchasing power of women, their offerings must become more creative and more plant-based.

NOVANIMAL is not about renouncing good food. It is about which leverage points have to be activated within the entire 'Bedürfnisfeld' nutrition so that consumers evolve their eating habits by choice in order to retain culinary enjoyment and a sense of well-being. The effects on the system will be less pollution and resource use, better public health, improved animal health and protection, enhanced food safety and greater food security.

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