CONSUMERS DO NOT APPRECIATE MEAT SUBSTITUTEs: WHAT CAN BE DONE?

Increasing numbers of consumers want to reduce their meat consumption to adopt a healthier and more environmentally friendly diet but without reducing their protein intake. One solution is to replace meat with substitutes. New plant-based protein foods have appeared on the market but are still having difficulty finding a place in the daily diet of households. This could be due in part to their sensory characteristics being too far removed from those of the meat they are supposed to replace.

In a study conducted at the CSGA, the sensory characteristics of five meat substitutes based on chickpeas, soya, wheat or mushrooms were compared with those of different meats in various recipes (white sauce, Chop Suey or lasagna). One-hundred-and-sixty consumers were invited to the CSGA to taste these dishes, indicate their levels of appreciation and describe the sensations they perceived in terms of texture, flavours, aromas, aftertaste and so on.

The results confirmed that people generally preferred meat whatever the recipe. However, the meat substitute made from mushroom protein was preferred to meat in the white sauce recipe. The researchers showed that adding flavourings to the meat substitutes or modifying their texture to make them less spongy were liable to enhance consumers' appreciation of these products.

Nevertheless, are such changes actually desirable? The production of increasingly processed foods could be counterproductive in terms of health and environmental gains. Rather than trying to imitate the appearance, taste and texture of meat and risking not living up to consumers' expectations, might it not be wiser to explore other ways of teaching consumers to appreciate plant-based protein foods for their own characteristics, as foods in their own right and not just as substitutes?

Contact
Sylvie Cordelle – sylvie.cordelle@inrae.fr
Pascal Schlich – pascal.schlich@inrae.fr

To know more

Key words
Pulses; meat substitute; consumer; acceptability; flavor; texture