Dietary probability to upgrade the effectiveness of poultry meat.

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Abstract

Goats are now found all over the globe. They inhabit many regions and settings in small or huge herds. Goat meat consumption is rising in Serbia due to its distinct flavour and desirable chemical make-up. Being an animal-based diet, it is high in proteins, vitamins, and minerals and has a very low fat and cholesterol content. The purpose of this paper is to draw attention to some of the health advantages, nutritional benefits, and prospective applications of goat meat. Breed, sex, production, stress tolerance, environment, management, nutrition, body weight at slaughter, and health status, as well as the act of killing the animal and what happens to the corpse afterwards, all have an impact on the chemical makeup of goat meat.

Keywords: Cholesterol content, Vitamins, Goat meat.

Introduction

A recent development in nutritional sciences is the concept of functional foods. It represents how ideas about food in human nutrition have changed through time, shifting from an emphasis in the past on nutrient requirements to an emphasis in the present on the health-related benefits of foods, such as lowering the risk of chronic diseases. Given the foregoing, functional foods are those that include particular nutrients and/or non-nutrients that have an impact on human health in addition to what is typically characterised as nutritional effects. Consequently, these foods have no clear and widely acknowledged definition. The nutritional strategies to improve the quality of food products of animal origin are a relatively new approach that has emerged at the interface of animal nutrition, food science and human nutrition. This approach has been effectively used to alter animal product composition to be more consistent with human dietary guidelines. Equally, it has been used to enhance health-related, i.e., functional properties of foods of animal origin. Nutritional changes have frequently been made to poultry flesh. The majority of efforts concentrated on changing the fatty acid composition of the carcass and enhancing the oxidative stability of poultry meat due to the close association between the fatty acid profile of the food of the poultry and that of deposited lipids.

Enrichment of poultry meat with PUFAs

Feeding growing poultry with rich sources of PUFAs (plant and fish oils or fish meals) resulted in their subsequent incorporation into carcass lipids [1]. As could be expected, fatty acid profiles of carcass fat closely reflected those of the dietary fat and adipose tissue fatty acid composition were obtained without any effects on the total fat content of the carcass or relative proportions of major lipid classes, including cholesterol [2]. The finding that the adipose tissue composition was more altered by dietary lipid profile than breast muscle was probably due to the physiological lipid storage function of the former tissue. A regular diet's composition being changed could have a number of negative repercussions. First, even while the bulk of these studies found that feeding PUFAs sources had no influence on animal performance (such as feed intake, growth rate, or feed conversion efficiency), a number of papers have shown that fish oil or fish flesh can have negative effects [3].

Adding more conjugated linoleic acid to poultry meat (CLA)

In monogastric animals, CLA isomers are rapidly absorbed and quickly integrated into adipose tissue and cell membrane phospholipids. Indeed, feeding CLA oils to poultry resulted in its linear deposition in adipose tissue and intramuscular fat [4]. This relationship was true even at high concentrations of dietary CLA, ranging from 0-2%. As already indicated, feeding broilers with diets abundant in PUFAs, including n-3 acids, leads to their deposition in poultry carcasses. However, high content of these compounds in the modified meat (deposited mainly in cell membrane phospholipids), influences lipid oxidation and therefore affects colour, flavour, texture, nutritional value, and finally impairs oxidative stability of meat during refrigerated storage.

Conclusion

Finally, the question of sensory quality of CLA-enriched poultry meat should be addressed. According to available evidence, dietary CLA improves oxidative stability of this

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meat. These isomers (dietary treatments: 0-5%), by increasing the content of SFAs and decreasing that of PUFAs in chicken meat, improved lipid and colour stability and reduced production of volatile compounds in both irradiated and non-irradiated chicken meat, during refrigerated storage.

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