

Effect of fortification the yellow lentils with some grains as an alternative to animal protein and its effect on the sensory properties and quality of the final product.

Abstract:

Lentil is a plant food consumed in the world due to its high protein content, complex carbohydrates, dietary fiber, folic acid and bioactive phytochemicals such as flavonoids, total phenolics, and its functional and technological characteristics. Also, can used lentil as healthy diet and alternative meats for the vegetarian or consumers are minimizing or excluding meat. Therefore, this study was conducted to determine the effect of fortification the yellow lentil with some grains as an alternative to animal protein and its effect on the sensory properties and quality of the final product. The chemical composition determination included protein, dietary fiber, ash, vitamins, minerals and sensory evaluation. Four different formulations of kofta were prepared: 100% meat, 100% yellow lentil, 75% lentil with 25% bulgur and 75% lentil with 25% semolina. Samples were evaluated as acceptable by the panelists, but 25% bulgur had the highest acceptability compared to control samples. The results revealed a significant increase $p<0.05$ of proteins, fiber, and ash in lentils (25.2, 8.3, and 2.3), bulgur (10.02, 14.91, and 1.36) and semolina (14.56, 3.81, and 0.69), respectively. In addition, there is a significant variation in mineral and vitamin A content. The protein content in different formulations ranged between 25.75, 17.45, and 18.78 compared to the control kofta of

17.76.Conclusion: Lentil can fortify with some grains to improve human nutritional quality as an alternative meat and healthy status because of its low fat, high protein and fibre content. Also, lentils can be used as a substitute for beans in making falafel.

Key words:

Lentils, grains, health benefits, meat alternatives.