Effect of grilling and roasting on the fatty acids profile of chicken and mutton

Alina, A.R., (Universiti Sains Islam Malaysia)
Nurul Mawaddah, A.H., (Universiti Sains Islam Malaysia)
Siti Mashitoh, A., (Universiti Sains Islam Malaysia)
Shazamawati, Z.H., (Universiti Sains Islam Malaysia)
Nurulhuda, M.S., (Universiti Sains Islam Malaysia)
Ummi Syuhada, H.S., (Universiti Sains Islam Malaysia)
Imtinan, A.K., (Universiti Sains Islam Malaysia)

The effect of grilling and roasting using a microwave oven on fatty acid profile of chicken and mutton meat was investigated. The lipid content (gravimetric method) and fatty acids composition (gas chromatography) were analyzed in three different treatments and applied on these meats in four replicates and two batches. Cooking losses, internal temperature reached by meat and, consequently, total lipids, increased directly with the cooking time and temperature used. Cooked chicken meat had a lower proportion of monounsaturated fatty acids (MUFA), polyunsaturated fatty acids (PUFA) and saturated fatty acids (SFA) than cooked mutton meat. PUFA/SFA ratio decreased in chicken meat and increased in mutton meat by heating. Chicken meat presents more favorable fatty acids profile than in mutton meat. This study implies the great choice for consumer to choose the healthier meat in a better way of cooking. It is recommended that other researchers should study on the nutritional value of chicken and mutton with other different cooking methods to obtain a better comparison data. © IDOSI Publications, 2012.