LIPID COMPOSITION, HYPERCHOLESTEROLAEMIC/HYPOCHOLESTEROLAEMIC (H/h),ATHEROGENIC (IA) AND THROMBOGENIC (IT) HEALTH LIPID INDICES, IN LONGISSIMUS MUSCLE OF WATER BUFFALO (BUBALUS BUBALIS) AND ZEBU-TYPE CATTLE RAISED UNDER SAVANNAH CONDITIONS

María Giuffrida-Mendoza, Lilia Arenas de Moreno, Nelson Huerta-Leidenz, Sojan Uzcátegui-Bracho, Kutchinskaya Valero-Leal, Sonia Romero. School of Agronomic Engineering, University of Zulia (LUZ), P.O Box 15205, Maracaibo, Venezuela.

Lipid composition and fatty acid (FA) ratios like polyunsaturates/saturates (PUFA/SFA), n-6/n-3 PUFA, and hypercholesterolaemic/hypocholesterolaemic (H/h) plus atherogenic (AI) and thrombogenic (TI) indices are useful criteria to evaluate the nutritional value of beef. To study effects of species, age and sex on cholesterol (mg/100g fresh tissue), FA composition (g/100g lipids) and FA indices of beef *longissimus*, savannah-fed, contemporary groups of entire (bulls) and castrated (steers) males of buffalo (n =32) and cattle (n = 34), species were serially slaughtered at 19 and 24 months of age (MOA). Cholesterol content was significantly higher in cattle (61.78 vs. 57.94 mg %) and in the younger, 19-MOA group (65.88 vs. 53.84 mg %). The species did not differ in total FA content and C18:0, C16:0, C18:1 cis, C18:2 n-6 and C20:4 n-6 were the predominant FAs. Age had little effect on FA composition; the younger, 19-MOA group showing a significantly higher content of total n-6 PUFA. PUFA components (total, n-3, and n-6) and the PUFA/SFA ratio were higher (P< 0.001) in bull muscles. H/h and TI were not affected by any of the studied effects. AI was higher in cattle and in the 24-MOA steer group. These results showed that comparable samples of *longissimus* muscles from buffalo and cattle species have a similar lipid composition and exhibited desirable levels of FA indices from a diet/health standpoint.