INFLUENCE OF LINSEED AND SOY OILS ON LIPIDIC PROFILE IN BROILER MEAT

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Ration can modificate fatty acid profile and cholesterol content in broiler meat, so that meat can become healthier. The aim of this research was to evaluate linseed and soy oil addition into ration on cholesterol content and fatty acid profile of meat. Three hundred and sixty Cobb one-day-old chicks were distributed in a complete randomized experimental design of 3x3x2 and two replications, in which the factors were: three levels of linseed oil associated to soy oil (3.37 and 3.13%; 5.45% and 1.05%; 6.15% and 0.35%), three levels of vitamin E (0, 200, 400ppm) and two sexes. All rations were formulated according to NRC requirements to contain 6.5% of oil. Broilers were 49 days old when killed, eviscerated and carcasses were frozen at -25°C for further analyses. Samples of skinned thigh and skinless breast of one bird of each replicate of each treatment were lyophilized and analyzed fatty acids contents (palmitic, palmitoleic, oleic, stearic, linoleic, linolenic) and total cholesterol content. We observed higher amounts of cholesterol in breast samples of male broilers (P=0.01) and male broilers meat shows higher polyunsaturated fatty acid (PUFA) content (P<0.05). Male breast meat showed lower content of palmitic acid and higher contents of linoleic and linolenic acids, but mean values of linolenic acid did not differ significantly in thigh. Addition of linseed oil into diets did not modify the fatty acids pattern and cholesterol content of the meat, but male broilers had higher PUFA contents in meat (thigh and breast) and higher cholesterol content in breast.

Acknowledgements: FAPESP, CAPES, FUNDUNESP