
Total cholesterol content, healthy unsaturated fatty acid and carcass characteristics in *M. longissimus dorsi* of Hanwoo (Korean native cattle) steers fed an alcohol fermented feed supplemented with soy lecithin

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■ **Abstract**

A feeding experiment was conducted with twenty-four Hanwoo (Korean native cattle) steers (445.80 kg + 37.3 kg) to investigate effect of soy lecithin on total cholesterol content, healthy unsaturated fatty acid profile and carcass characteristics in *M. longissimus dorsi*. The steers in the control group were fed the commercial concentrate (5 kg/d) and AFF (5 kg/d) twice daily in equal volumes (CON). Another group of steers were fed same amount of commercial concentrate and AFF diet mixed with soy lecithin at the level of 5% of AFF (SL). Supplementation of soy lecithin increased daily gain ($P<0.05$) and concentration of triglyceride ($P<0.02$), cholesterol ($P<0.04$) and HDL-cholesterol ($P<0.01$) in blood. SL treatment increased crude fat content ($P<0.04$) of *M. longissimus dorsi* compare to that of CON. For cholesterol in *M. longissimus dorsi*, a significantly lower concentration ($P<0.01$) was found for SL treatment compared to CON. For marbling score and quality grade of *M. longissimus dorsi*, SL treatment significantly increased grade range compared to CON. Dietary supplementation of soy lecithin significantly increased C20:5n3 ($P<0.04$), C22:4 ($P<0.03$) and PUFA ($P<0.04$) contents compared to CON. However, no difference was found on amino acid profile of *M. longissimus dorsi* between CON and SL treatments. Based on the results of the current feeding trial with Hanwoo steers, addition of soy lecithin to the diet along with alcohol fermented feed may alter the cholesterol and polyunsaturated fatty acid profile of *M. longissimus dorsi*, and meat marbling quality without detrimental effects on steer growing performance.

■ **Key Words:** Soy lecithin, Growth performance, Blood metabolite, Meat quality

■ **References**

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