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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

CLA *trans*-10, *cis*-12 ISOMER TRANSFER EFFICIENCY FROM DIET TO MILK IN GOATS AND EWES

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The trans-10, cis-12 conjugated linoleic acid (CLA) isomer is able to promote milk fat depression (MFD) in mammals. However, it is observed differences in the magnitude of MFD in small ruminants. The objective of this study was to evaluate the transfer efficiency of CLA trans-10, cis-12 from diet (g/d) to milk (g/d) in dairy goats and sheep. Data from previously published studies were used accounting 55 observations using increasing doses of CLA trans-10, cis-12: 0; 4.48; 8.97 and 13.45 g/d for goats (n = 32) and 0; 2.99; 5.98; 8.97 g/d for sheep (n = 23). The transfer efficiency of CLA trans-10, cis-12 from diet to milk was measured using the REG procedure of SAS by linear regression y = a + bx, where: "y" represents the amount of CLA trans-10, cis-12 secreted in milk (g/d), "a" is the intercept, "b" is the slope of regression and "x" is the CLA trans-10, cis-12 dose fed (g/d). To evaluate the transfer efficiency between species, the slope of the regressions were compared using the GLM procedure. The equations for goats and sheep were, respectively, $y = 0.016 + 0.010x$ ($r^2 = 0.70$) and $y = 0.024 + 0.016x$ ($r^2 = 0.72$). The slope of the two equations are different ($P = 0.04$) indicating that the transfer efficiency of the CLA trans-10, cis-12 from the diet into milk is 37.5% lower in goats. These results corroborate the literature describing that dairy goats are more resistant to MFD caused by CLA trans-10, cis-12.

Keywords: small ruminants, conjugated linoleic acid, milk fat depression.