Effects of Dietary Fibre on Nutrient Digestibility in Obese Dogs.

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The objective was to evaluate the influence of 4 dietary fibres (DF) on nutrient digestibility coefficients in obese Beagles. Diets containing 10 % total DF on dry matter basis as guar gum -GG-, cellulose -CEL-, sugar beet fibre -SBF- and a blend of guar gum and cellulose -BL- were compared with a control diet (CO). The BL diet was formulate to mimic the insoluble-to-soluble fibre ratio of SBF. Each diet was offered for 4 weeks in a 5 X 5 Latin square design; faeces were collected in metabolism cages during 7 days.

Apparent dry matter and organic matter digestibility coefficients were decreased by DF as compared with CO ($p < 0.01$ for GG, CEL, SBF and BL). Protein and ether extract digestibilities were reduced respectively with GG, SBF and BL ($p < 0.01$) and with GG and BL ($p < 0.01$). Apparent digestibility of total DF, characterised by large individual changes, was 69.4 % with CO and was decreased with CEL, SBF and BL ($p < 0.01$). Apparent digestibility of soluble DF was high (97 %) and was decreased with SBF ($p < 0.05$) while digestibility of insoluble fibre was largely variable (7 to 38 %) and not different between treatments. Comparisons between SBF and BL revealed similar effects on dry matter, organic matter, total and insoluble DF digestibility coefficients.