

# Potential benefits of fiber ingredients

## Fiber sources can induce different physiological responses in cats, reduce energy digestibility and favor glucose metabolism or improve gut health

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The study compared the effects of three fiber sources on the energy and macronutrient digestibility, fermentation product formation, postprandial metabolite responses and colon histology of 24 overweight cats. The cats were fed one of four kibble diets: control (CO, 11.5% dietary fiber); beet pulp (BP, 26% dietary fiber); wheat bran (WB, 24% dietary fiber); or sugarcane fiber (SF, 28% dietary fiber).

Fiber addition reduced food energy and nutrient digestibility. Out of all of the fiber sources, SF had the lowest dietary fiber digestibility, causing the largest reduction of dietary energy digestibility. The higher fermentability of BP resulted in reduced fecal dry matter (DM) and pH, greater fecal production and greater fecal concentration of acetate, propionate and lactate. For most fecal variables, WB was intermediate between BP and SF, and SF was similar to the control diet except for increased fecal DM and firmer feces production for the SF diet.

Postprandial evaluations indicated reduced glucose mean concentration and area under the glucose curve in cats fed the SF diet. Colon mucosa thickness, crypt area, lamina propria area, goblet cell area, crypt mean size and crypt in bifurcation did not vary among the diets.

According to the fiber solubility and fermentation rates, fiber sources can induce different physiological responses in cats, reduce energy digestibility and favor glucose metabolism (SF) or improve gut health (BP).

Source: M.M. Fischer *et al.*, 2012. Fiber fermentability effects on energy and macronutrient digestibility, fecal parameters, postprandial metabolite responses, and colon histology of overweight cats. [J Anim Sci online](http://www.animasci.com) January 2012. doi: 10.2527/jas.2011-4334

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Fonte: [http://www.petfoodindustry.com/Research\\_Notes/Potential\\_benefits\\_of\\_fiber\\_ingredients.html](http://www.petfoodindustry.com/Research_Notes/Potential_benefits_of_fiber_ingredients.html) acessado em 02/mar/2012.