

FIBER IN PET FOODS

Total Dietary Fiber and Oligosaccharides in Obesity and Diabetes Diets

Principal Investigator: Andrea Fascetti

Co-investigators: Jennifer Larsen, Amy Farcas, Richard Nelson

Lay Abstract:

Research has shown that there are significant health benefits from consuming increased concentrations of dietary fiber. Some diseases, such as obesity and diabetes in dogs and cats are frequently managed with changes in dietary fiber intake. In order for veterinarians to make these recommendations, it is necessary to define the concentrations and types of fiber present in pet foods. Dietary fiber may be soluble or insoluble, with varied chemical structures, and may be natural or synthetic. Oligosaccharides are a type of fiber that can be found naturally in some ingredients such as bananas and barley. Purified forms of oligosaccharides are often added to both human and pet foods to promote healthy bacterial populations. Since different fiber types do not share many common features, a single laboratory test to measure them does not exist. Pet food labels must report fiber content as “Crude Fiber” or CF as a component of the guaranteed analysis required on the product label. A recently completed study by the authors has demonstrated that the analytical test to determine CF does not accurately reflect the total fiber concentration. In contrast, fiber in human foods is measured and reported as “Total Dietary Fiber” or TDF. The test used to determine TDF measures both soluble and insoluble fiber but does not account for oligosaccharides. Most pet food companies do not report TDF or oligosaccharide concentrations on the label, or in associated product information. This study aims to analyze a variety of canned and dry veterinary diets with added fiber to manage obesity or diabetes in dogs and cats using a test that includes both TDF and oligosaccharide content. The results will be compared to manufacturer’s values (in instances when it is available) as well to results for over-the-counter diets occasionally recommended in place of these therapeutic diets. This will help increase awareness by veterinarians and pet owners regarding the limitations of the CF information provided by the guaranteed analysis and provide more details regarding the composition of fiber, including oligosaccharides, in these therapeutic foods. Study findings may also be used as supportive data to encourage regulatory changes to improve fiber content reporting on pet food labels.