

EFFECTIVE DATE	NP Analytical Laboratories	METHOD CODE
REVISED: 03/14/2025	LABORATORY TEST METHOD SUMMARY	PDFT & PDFF
REPLACES: 10/25/2020	Dietary Fiber – Total, Soluble, & Insoluble	PAGE 1 OF 1
KEY WORDS: Dietary Fiber, Soluble and Insoluble Fiber, Total Dietary Fiber, carbohydrate		

1. SCOPE AND PURPOSE:

- 1.1. This method measures total, including insoluble and soluble, dietary fiber in foods, feeds, cereals, flours, ingredients, and grains.
- 1.2. There is no assurance that matrices other than those listed can be assayed using this method.

2. PRINCIPLE:

- 2.1. Samples are treated with enzymes to hydrolyze protein and starch.
 - 2.1.1. PDFT - Ethanol is added to the hydrolysate, precipitating total dietary fiber (TDF). The precipitate is isolated by filtration, dried, and quantitated gravimetrically, including correction for any residual ash and protein
 - 2.1.2. PDFF (separation of the insoluble and soluble fiber fractions) - The sample is filtered after the enzymatic hydrolysis. The residue is dried and quantitated (insoluble dietary fiber - IDF). Ethanol is added to the filtrate, precipitating soluble dietary fiber (SDF). The SDF precipitate is isolated by filtration, dried and quantitated. Both IDF and SDF fractions are corrected for residual ash and protein. Total dietary fiber is calculated as the sum of the two fractions.
- 2.2. Using a 1 gram sample, the lowest confidence level of this method is 1.0% total fiber, 0.5% insoluble fiber, and 0.5% soluble fiber.
- 2.3. There are no known interferences that exist for this procedure.

3. PRECISION:

Records of method precision based on Method Validation and/or known control summaries are located in the QA Master file for this test method. Assay precision may vary with test matrix and analyte level. Terms used to describe method precision are defined in NPSOP3000, *Validation of Quantitative Chemical Tests*.

4. REFERENCES:

- 4.1. Official Method of Analysis of the AOAC Method 991.43
- 4.2. Official Methods of Analysis of the AOAC Method 985.29