Megazyme

August 2018

AOAC APPROVES REVOLUTIONARY NEW METHOD FOR DIETARY FIBER MEASUREMENT IN FOODS

Megazyme's RINTDF Method has been accepted by AOAC International, the standard-setting body for analytical chemistry worldwide. The new method builds on earlier work by Megazyme in dietary fiber analysis and has been on the market since 2016 in assay kit format (K-RINTDF). Following interlaboratory evaluation and testing, RINTDF is now AOAC Standard Method 2017.16.

Find out more: view the K-RINTDF data booklet at www.megazyme.com

Dietary Fiber and Foods

Dietary fiber forms an important part of the human diet and is a common food additive due to its impact on digestion and health. Manufacturers measure the dietary fiber present in food products in order to provide accurate information for food labelling.

Defining Dietary Fiber

The Codex Alimentarius Commission - a United Nations/WHO body - spent almost two decades developing a definition of dietary fiber that would be recognised globally. The definition adopted in June 2009 includes resistant starch (RS), a component not accurately measured by the dietary fiber methods then available.

Megazyme devised a method to support the Codex definition, and this method was successfully evaluated in interlaboratory studies and approved by AOAC International (2009.01; 2011.25). This 'Integrated TDF' Method has been refined and improved to create the **RINTDF Method**.

Find out more: open access paper 'Evolution of a Definition for Dietary Fiber and Methodology to Service this Definition'

The RINTDF Method

The rapid integrated procedure (RINTDF) measures total dietary fiber, including RS and SDFS (i.e. NDO) of DP > 3, in all foods and food ingredients. Specific dietary fiber fractions are measured as follows:

i. Total High Molecular Weight Dietary Fiber (HMWDF) and SDFS determination.
ii. Insoluble Dietary Fiber (IDF), SDFP and SDFS determination

This method combines the key attributes of AOAC Official Methods 985.29/991.43, 2001.03, 2002.02 and 2009.01/2011.25.

Comprehensive Total Dietary Fiber		
High Molecular Weight DF		Low Molecular Weight DF
"Classical" Fibers	**Resistant Starch**	**Non-digestible Oligosaccharides (NDOs)**
• Cellulose • β-Glucan • Galactomannan • Arabinoxylan • Pectin • Arabinogalactan	• RS_1 (physically inaccessible starch) • RS_2 (resistant starch granules) • RS_3 (retrograded starch) • RS_4 (phosphate-crosslinked starch)	• Fructooligosaccharides (FOS) • Galactooligosaccharides (GOS) • Polydextrose • Resistant Maltodextrins (RMD)

Which methods accurately measure this component?

RINTDF	✔	RINTDF	✔	RINTDF	✔
Prosky/Lee	✔	Prosky/Lee	✖	Prosky/Lee	✖
Matsutani	✔	Matsutani	✖	Matsutani	✔

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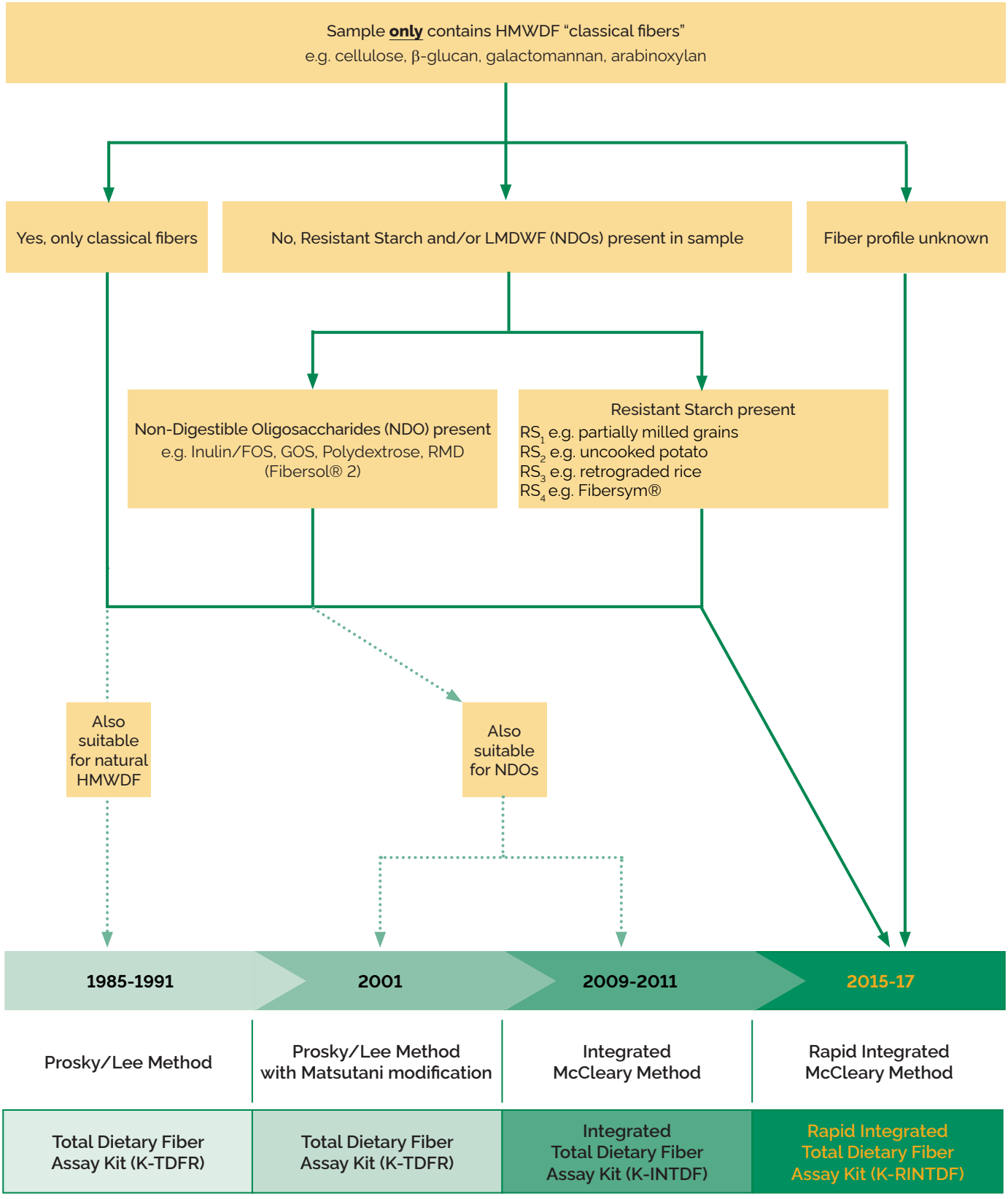
WHICH DIETARY FIBER METHOD IS MOST SUITABLE FOR MY SAMPLE?



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