Association des Amidonneries
de Céréales de l'Union Européenne

AAC's opinion on the definition of dietary fibre

Having considered the discussion at international level on the definition, AAC is of the opinion that the definition of dietary fibre should be based on the following concepts:

1. Dietary fibre consists of the non digestible carbohydrates contained in foods that have a Degree of polymerization (DP) not lower than 3. It includes processed or synthetic carbohydrates added to food.
2. Dietary fibre is neither digested nor absorbed in the small intestine.
3. Dietary fiber has at least one of the following properties:
   - Increase stools production i.e. regularity
   - Stimulate colonic fermentation
   - Reduce fasting cholesterol levels
   - Reduce post-prandial blood sugar and /or insulin levels.

AAC holds that dietary fiber includes starchy products such as resistant starch (RS), ie RS1, RS2, RS3, according to commonly accepted definitions (Englyst et al, 1992; Asp, 1996), resistant dextrins or polydextrose, as well as resistant non-starch carbohydrates such as inulin, fructo-oligosaccharides or gums.

Like CIAA, AAC supports the use of the enzymatic gravimetric method for measurement of dietary fibre in food (AOAC 985.29, AOAC 994.13), and the use of alternative or complementary validated methods when a food contains materials that belong to dietary fibre but are not adequately measured by the standard enzymatic gravimetric method. As far as starchy materials are concerned, additional or alternative validated methods are, as of today:

- For food contains resistant starch: AOAC method 2002.02 [1]
- For food containing resistant dextrins/maltodextrins: AOAC method 2001.03.
- For food containing polydextrose AOAC Method 2000.11

[1] Enzymatic gravimetric methods partly measure resistant starch type 3. It is therefore necessary to quantify residual starch (total starch) from the fibre residue, and to analyze RS independently.

References:

Asp NG (1992) Resistant starch – Proceedings from the second plenary meeting of EURESTA: European FLAIR Concerted Action No. 11 on physiological implications of the consumption of resistant starch in man. Preface. *European Journal of Clinical Nutrition* **46**, Suppl. 2, S1.

Englyst HN, Kingman SM & Cummings JH (1992) Classi.cation and measurement of nutritionally starch fractions. *European Journal of Clinical Nutrition* **46**, Suppl. 2, S33–S50.

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