



Making inulin work for you

Subject : News release
Mouthfeel effects in dairy products

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Recently, Sensus has published the data of research carried out in collaboration with NIZO Food Research of the use of tribology to assess mouthfeel effects in dairy products¹.

Tribology uses the principles of friction, lubrication and wear to investigate the interaction between surfaces in relative motion. This is the first paper describing its use in inulin containing dairy products. Tribological analysis showed that with inulin, the friction coefficient of skimmed milk could be decreased to the value of full fat milk, with long-chain inulin being more effective than medium chain inulin. The addition of inulin had minor effects on mouthfeel; only attributes related to oral friction tended to be lower.

In close collaboration with experts of Instituto de Agroquímica y Tecnología de Alimentos (Valencia, Spain) there is also written a comprehensive review² on the application of inulin to modify the texture in dairy products.

In the paper an overview is presented of the use of inulin in liquid, semi-solid and solid dairy products, such as in milk beverages, yogurt and fresh cheese. Emphasis in these applications is on the use of inulin as a fat replacer, to mimic the creamy mouthfeel of fat in such low-fat dairy products.

For more information feel free to contact Diederick Meyer, Manager Scientific and Regularity Affairs, +31 165 582 552, diederick.meyer@sensus.nl or Jolanda Vermulst, Manager Technical Sales, +31 165 582 549, jolanda.vermulst@sensus.nl.

¹ Further details can be found in Meyer, Vermulst, Tromp and de Hoog (2011). The effect of inulin on tribology and sensory profiles of skimmed milk. J. Texture Stud. doi 10.1111/j.1745-4603.2011.00298.x

² The underlying mechanisms are also discussed in the article that appeared in Food Hydrocolloids: Meyer, Bayarri, Tárrega and Costell (2011). Inulin as texture modifier in dairy products. doi:10.1016/j.foodhyd.2011.04.012