



Breaking News on Food & Beverage Development - Europe

Bunge: Consumer concerns on hydrogenation prompted R&D

By Kacey Culliney+, 04-Nov-2013

Related topics: Fats & oils, Financial & Industry, Natural and clean label, Nutrition labelling

Bunge has developed a patented trans-free bakery shortening without the hydrogenation process in reaction to consumer concern over 'hydrogenated' oils on the label, its innovation director says.

The oil specialist has worked for six months to develop a bakery shortening system that has no saturated fats and no trans fats but at the same time does not use hydrogenation as a process.

The all-purpose shortening can be used in baked goods that do not have an emulsification element such as cookies, biscuits and crackers as a direct replacement.

"Hydrogenation has a bad connotation, especially partial hydrogenation," said Dilip Nakhasi, director of innovation for Bunge Oils North America.

Partial hydrogenation forms trans fats, Nakhasi explained, but full hydrogenation does not.

"However, consumers don't understand the difference between partial hydrogenation and full hydrogenation. In a consumer's mind, they think if it is hydrogenation, then it may have some trans fats," he told BakeryandSnacks.com.

These concerns over hydrogenated oils appearing on the label prompted Bunge's research team to work on the new shortening system, he added. *"A lot of our research is proactive, but sometimes consumers play a major role."*

Patented technology

Bunge has used a patented technology and process to build the shortening system without the need for hydrogenation.

The research team has fingerprinted the triglycerides found in a fully hydrogenated material including palm oil and soybean oil, and worked to re-arrange or 'mismatch' them to form a hard crystal network.

As a result of this specific research, Nakhasi said Bunge was able to identify six triglycerides that form the hardest crystal network and are maximized when re-arranged.

Fibers are then used to strengthen this network by holding liquid oil, he said.

The ingredient, as per its predecessors which use hydrogenation, can reduce saturated fats by between 40-60%.

Nakhasi said Bunge is working on a hydrogenation-free version to use in bakery products like cakes and icings that require an emulsification step.

Simple, drop in replacement

Bakers will not need to make any formulation or processing adjustments with this shortening, he said.

Manufacturers can use it in solid form to mix directly into the dough or melt it down and use it in liquid form, he said. *"They will just need to be careful with the fiber – you don't want that to settle down,"* he added.

Copyright - Unless otherwise stated all contents of this web site are © 2013 - William Reed Business Media SAS - All Rights Reserved - For permission to reproduce any contents of this web site, please email our Syndication department copyright@wrbm.com - Full details for the use of materials on this site can be found in the Terms & Conditions

© 2013 - William Reed Business Media SAS - All rights reserved.

