

Soybeans no longer a musical fruit?

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Food chemists have removed gas-producing sugars in products containing soy -- a find that could be music to consumers' ears. Credit: US Department of Agriculture

Soybeans may drop off the list of musical fruit. Scientists in Singapore are reporting victory over some consumers' No. 1 complaint about soy products — the "flatulence factor" caused by indigestible sugars found in soy. In a study scheduled for the November 12 issue of ACS' bi-weekly *Journal of Agricultural and Food Chemistry*, they describe a method for significantly reducing the amount of flatulence-causing carbohydrates in soy yogurt while raising the levels of healthy antioxidants known as isoflavones.

In the study, Dejian Huang and colleagues note that soy yogurt has a global market share of only 1.9 percent, even though it has a number of health advantages over dairy-based yogurt. That's partly because of the flatulence-causing compounds in soy. "It would be desirable to remove

the flatulence-causing raffinose and stachyose from the soy yogurt to improve consumers' preferences. The objective of this study was to develop a new soy yogurt enriched with isoflavones with reduced levels of flatulence-causing oligosaccharides," the scientists said.

The researchers grew soybeans in the presence of a fungus that produced enzymes capable of degrading the undesired sugars. "We have demonstrated for the first time that germinated black soybeans under fungal stress can be fermented into a soy yogurt which features a low amount of flatulence-causing oligosaccharides but with a significant level of isoflavones," says Huang.

Article: "Novel Process of Fermenting Black Soybean [Glycine max (L.) Merrill] Yogurt with Dramatically Reduced Flatulence-Causing Oligosaccharides but Enriched Soy Phytoalexins"

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