

Researcher develops power-packed soy breakfast cereal

March 6 2008

Breakfast of champions? That would be a soy protein-packed, low-fat, high-fiber cereal that meets the requirements for three different FDA health claims and leaves you feeling full so you won't be tempted to eat again until lunch.

University of Illinois scientist Soo-Yeun Lee has cooked up a "recipe" for just such a cereal, one that's passed the taste test of her sensory panel.

"There are lots of good reasons to eat soy--and even more reasons to consume soy protein at breakfast," said Soo-Yeun Lee, a U of I assistant professor of food science and human nutrition.

"Research shows that soy decreases the risk of breast and prostate cancers and lowers cholesterol and triglycerides. Diets high in soy protein are also effective in combating obesity. Soy protein is very high-quality protein, and high-protein meals eaten early in the day stick with you so you eat less," she said.

Even though it's important that people consume protein in the morning, the scientist said most breakfast foods—cereals, muffins, waffles—are high in carbohydrates.

So why don't more breakfast foods contain soy?

"If we incorporate too much soy in a product to increase its protein

content, off-flavors and off-textures can develop, which may result in less consumer acceptance of the product,” the researcher said.

Lee has accomplished a lot then in getting 10 grams of protein (6.5 grams of it soy protein) and 5 grams of fiber into one serving of a cereal that people find appealing. In doing so, she also met the requirements for the FDA’s soy, high protein, and fiber health claims.

Other products have used soy as a fortifying ingredient rather than a major base ingredient, she said.

How does she know her soy-based cereals appeal to consumers? The researcher asked 120 people to take part in a sensory panel to evaluate her four formulations—both unflavored and cinnamon-flavored cereals served with and without skim milk. A second consumer evaluation pitted Lee’s cereals against five cereals that are already commercially available and marketed for their healthful properties.

“We know we need to do some tweaking but, even at this stage, one of our formulations did better than a product that’s already on store shelves. We’re still experimenting with different flavors and sweeteners, but I’m confident that soy-based, high-protein cereals can not only optimize nutrition, they can also taste good,” she said.

Lee said that her formulations were taste-tested as stand-alone cereals but could also be used as supplements to boost the protein and fiber content of other cereals.

“Because most Americans eat cereal for breakfast, we thought it made sense to boost the protein content of the food they’re used to eating,” said Lee.

Besides, a breakfast food that is high in soy protein has advantages over

other protein sources (think bacon and eggs) that are high in fat and cholesterol, she said.

Source: University of Illinois at Urbana-Champaign

Citation: Researcher develops power-packed soy breakfast cereal (2008, March 6) retrieved 20 March 2024 from

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