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Corn fiber oil may offer key to adding value to milling operations, researcher says

COLUMBIA, MO. -- Corn fiber -- a byproduct in milling operations such as ethanol plants -- may offer processors a value-added opportunity, says a U.S. Department of Agriculture researcher.

This fiber makes up about five to 10 percent of a kernel's weight. An oil can be extracted from the fiber which contains phytosterols, also known as plant sterols.

This family of compounds has shown to be helpful in blocking the absorption of cholesterol into the blood system, said Kevin Hicks, research leader, Plant Science & Technology Research, Eastern Regional Research Center, Agricultural Research Service (ARS).

Hicks says that four million tons of corn fiber are left each year in the U.S. from milling operations. That could translate into about 80,000 tons of corn fiber oil for ingredients in new value-added biobased or functional food products.

The corn fiber oil is different in makeup than the corn germ oil, he said. Studies show that it is high in a derivative of sitosterol, a unique phytosterol that offers antioxidant properties in addition to lowering cholesterol.

He said eating what he calls functional foods that contain such beneficial compounds may help in reducing the threat of heart disease.

"With the aging Baby Boomer population, there may be a growing market for such products," he said.

VALUE

The ARS research on corn fiber oil is an attempt to increase demand for grain and grain byproducts to offset low commodity prices and high fuel bills, he said at a seminar for agricultural engineering faculty at the University of Missouri-Columbia.

"Our research looks at creating new, value-added products from low-valued agricultural products or byproducts," he said.

Such research involves chemical, physical and enzymatic methods to generate valuable foods, food additives, nutraceuticals, pharmaceuticals and industrial products, he said.

Hicks holds degrees in chemistry and biochemistry from MU.

Source: Kevin Hicks (215) 233-6579

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