Which wheats make the best whole-grain cookie doughs?

December 20 2011

Festive cookies, served at year-end holiday gatherings, may in the future be made with a larger proportion of whole-grain flour instead of familiar, highly refined white flour. That's a goal of ongoing studies by U.S. Department of Agriculture (USDA) scientists in Wooster, Ohio.

A study by scientists with the USDA's Agricultural Research Service (ARS) Soft Wheat Quality Research Unit in Wooster was published earlier this year in *Crop Science*. The research may help plant breeders zero in on promising new wheat plants that might be tomorrow's superstar producers of whole-grain soft wheat flours for cookie doughs.

ARS is USDA's chief intramural scientific research agency.

Consumption of whole grains has been associated, in some studies, with reduced risk of cardiovascular disease. But Americans don't eat enough whole grains, according to wheat expert Edward J. Souza. A former ARS research leader and plant geneticist at Wooster, Souza now directs wheat breeding for an international plant science company.

Souza conducted the cookie-flour study in collaboration with Clay H. Sneller of Ohio State University's Ohio Agricultural Research and Development Center at Wooster, and with Mary J. Guttieri, formerly with the center.

New, detailed evidence from their investigation confirms that two inexpensive, readily available and relatively simple tests are reliable tools

for getting an early in-the-laboratory indication of how good a promising new wheat may prove to be as a future source of whole-grain cookie flour.

The two procedures-the sucrose SRC (solvent retention capacity) test and the milling softness equivalent test-aren't new. But the Wooster team's study is perhaps the most thorough examination of the tests' reliability as an early screen for a new soft-wheat flour's performance in whole-grain cookie doughs.

The scientists used 14 different commercial varieties of soft wheat for this research. The study showed that breeders and foodmakers can rely on the SRC and softness tests for early screening. Later, when they want to narrow their focus to only those plants that are uniquely superior sources of whole-grain cookie dough flour, they can invest in the "wire-cut cookie test," a more expensive procedure.

More information: Read more about this research in the November/December 2011 issue of Agricultural Research magazine. www.ars.usda.gov/is/AR/archive/nov11/flour1111.htm

Provided by United States Department of Agriculture

Citation: Which wheats make the best whole-grain cookie doughs? (2011, December 20) retrieved 26 April 2024 from https://phys.org/news/2011-12-wheats-whole-grain-cookie-doughs.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.