



Ultragrain® Helps You Formulate Healthier Snacks—But Don't Tell the Kids

Increasing the consumption of satiety-inducing, fiber-rich whole grains can serve as an important tool in fighting childhood obesity epidemic and related diseases. And it's easy to get kids to switch from the usually favored, but nutritionally challenged, white-flour favorites when whole-grain snacks taste and look the same.

Ultragrain whole-grain flours could make the transition easier for kids to stomach. "They can also simplify formulation and processing of whole-wheat and whole-grain snack products, too," said Harold Ward, manager of technical services, ConAgra Mills™, Omaha, NE.

ConAgra Mills' Ultragrain® 100% whole wheat flour is available as a hard wheat with 12.0% minimum, (typically 13.0%) protein, and a soft wheat with a minimum of 9.0% (typically 10.0%) protein. "In general, for a cookie or pastry-snack product, you'll be using soft flour. This is just a little higher (protein) than your average pastry flour," said Ward. "Pastry flours are made with a soft wheat, with the bran and germ removed. That means the soft-wheat version has a 12.7% fiber content—12.2% in the hard-wheat flour—versus 1% to 2% in regular white flour."

In general, this whole-grain flour can substitute for all or some of the standard flour in cookies and snack cakes. It's not a total "drop-in" solution, as the flours have slightly different characteristics, but modifications are fairly straight forward. "One exceptional application that I've had a lot of luck with is a chocolate-chip cookie," said Ward. Brownies and chocolate rotary-molded cookies are other good options. In these, the darker color and chocolate flavor disguise slight color and flavor differences. "Something like a sugar cookie has a milder flavor and a lighter color, so blending with refined flour will optimize taste and appearance," he noted.

The higher fiber content may require some formulation and processing adjustments, too. The extra fiber increases the water absorption. "Depending on the product and based on percent whole wheat, say 100%, you might need an additional 12 to 15% water," said Ward. And that would require an adjustment in the baking profile to account for the additional moisture. With most cookies and pastry snacks, the mixing requires few, if any, changes. "In products where you want gluten development, less mixing is recommended. This will reduce the shearing of the gluten by the bran," said Ward.

According to Bill Bonner, director of R&D and technical services at ConAgra Mills, in some cases it may be necessary to consider a gradual transition to whole grains in order to systemically shift consumer preference. "In 5 to 10 years we'll see many products that have transitioned to 100% whole grain," said Bonner.

