



Whole Grain Pizza Crusts Bring in the Dough

The copious rows of partially baked pizzas in supermarket freezers, the growing stacks of fresh options in the deli section, the proliferation of neighborhood pizzerias and the increasingly upscale pizza presentations and ingredients all point to the same conclusion: It's hard to find anyone, young or old, who doesn't count pizza among his or her favorites. In the crowded field, perhaps the best way to get a healthy slice of the estimated \$25 to \$35 billion retail and restaurant pizza market is to give the category a nutritional makeover. Add a dash of olive oil, swap out the sausage for leaner meats, don't overdo the high-fat cheese, look for lower-sodium alternatives, load up on a medley of fresh veggies...and then, take a cue from the Food Pyramid and make a whole grain crust the foundation for your new creation.

With pizza, it's not difficult for manufacturers, the pizza retailers and consumers to transition to a whole grain or multigrain crust. The crust can easily carry other grains, such as finely ground wheat bran and Sustagrain® Barley, starting at levels approaching 25% or higher, points out Elizabeth Arndt, manager of product development, ConAgra Foods, Omaha, NE. Or depending on the finished-product requirements, it can include a whole grain wheat flour, such as Ultragrain®, at levels from 50% to 100%. "The particle size and color of whole red wheat will be much more apparent than that of an extremely fine-ground whole wheat like Ultragrain," she says. She also notes that regular whole wheat tends to produce a denser crust.

As with bread, the flour is a critical component, says Harold Ward, manager of technical services, ConAgra Mills. "Manufacturers that are mass-producing pizza products are often making a variety of different crusts, with the same flours." So, while it's important to have consistent, good quality wheat flour, the same whole grain formulation recommendations apply to all applications. Using whole grains typically requires a little extra water, a little less mixing and a little more attention to holding times.

"Typically in a frozen, partially baked pizza, the biggest issue is moisture loss, so maintaining the moisture is critical; that's something that relies much more on the formulation than the type of flour that you're using," says Ward. A frozen, raw crust can benefit from a higher protein content.

If the pizza is destined for the microwave, says Richard Charpentier, food technologist, ConAgra Mills, the flour should produce the same results, and if texture needs improvement, "that's generally achieved with modifying the formulation with other ingredients," including fiber and proteins. In fact, with microwave pizzas, he finds that a certain proportion of whole grain flour provides the necessary color that usually only develops in conventional baking.

Pizza makes an ideal candidate for whole grain formulation. While the crust texture, of which the ideal varies from region to region and even person to person, generally distinguishes the pie, it literally provides a blank canvas for the more-assertive sauces and toppings. That makes it "much easier to go up to 100% whole grain and have people accept it," says Ward.

Best of all, a group of the most discerning consumers, kids, agree that whole grain pizza tastes every bit as good as the original. A 2005 University of Minnesota study involving 350 elementary school children found that the children readily ate whole grain foods made with Ultragrain®. School cafeteria taste tests compared pizza made with a blend of 50% Ultragrain whole wheat flour and 50% regular flour with one made with 100% regular white flour. Ultimately, the kids consumed virtually equal amounts of the pizzas made with Ultragrain whole wheat flour as those made with traditional flour, indicating that healthy whole grain pizza crust earns high grades.

