



WAVES *of* GRAIN

*Whole-grain bread has risen in public acceptance,
with many consumers expecting it at restaurants.*

It's time for operators to respond.

BY JODY SHEE

F McDonald's can encase its premium chicken sandwich in a whole-grain honey wheat roll, and Arby's can offer its Grilled Chicken & Pecan Salad sandwich on whole-grain bread, then certainly, at a minimum, every chef should include a whole-grain offering in the bread basket.

With the current whole-grain scene and the consumer climate leaning toward whole and healthy (but tasty), it's even more imperative for chefs to reexamine the staff of life and find a way to bring the best of it to the table.

Some operators make bread from scratch (some even milling their own grains), while others source par-baked product to finish off at the restaurant or choose to outsource bread production entirely to a local bakery. In each case, it's important to know the latest developments and trends with whole-grain bread.

Whole-grain bread baking has evolved over decades. The dark, dense whole-grain bread of yesteryear has given way to lighter, better-tasting bread, simply with better understanding of the art and science of bread baking, says Cynthia Harriman, director of food and nutrition strategies for Whole Grains Council, Boston. "I've had chefs say they don't serve whole-grain bread because no one really wants it and the bread doesn't really taste that good," she says. "I tell them it tastes delicious from the hands of a talented chef. I've seen, over the past half-decade, that chefs have risen to the challenge."

Culinary schools of the early 1990s didn't take bread that seriously, admits Peter Reinhart, chef on assignment at Johnson & Wales University, Charlotte, N.C. He previously ran a bakery and has written numerous books, including the award-winning *The Bread Baker's Apprentice: Mastering the Art of Extraordinary Bread* (Ten Speed Press, 2001). The culinary renaissance in the U.S., brought on partly by Alice Waters' Chez Panisse in Berkeley, Calif., (which brought good bread to the table) helped to change all that. "Americans realized better bread was possible, and they started to demand it," Reinhart says. "That led to the growth of the artisan baking movement, which has been going on for many years now."



But the low-carb movement of a decade ago gave a boost to whole-grain bread development. "Artisan bread makers and major companies recognized one of the best ways to get bread back on the table was to make healthier

Good whole-grain bread should have large, open, irregular holes and a cool and creamy (not starchy) mouthfeel with a brittle, crackly crust, as in this whole-wheat bread, says Peter Reinhart, chef on assignment at Johnson & Wales University, Charlotte, N.C.

SPROUTED WHOLE WHEAT DOUGH

Peter Reinhart, chef on assignment at Johnson & Wales University, Charlotte, N.C., offers insights, ratios and measurements on making sprouted-grain bread. The flour, because of the sprouting process, remains tender and soft without the addition of oil or fat and is naturally sweet. Sprouting the wheat changes it enough so that many of the rules for artisan breads, such as the use of preferments and long, slow rising times, can be accomplished by the flour itself in less time. The enzyme activity provided by the long fermentation times is already accomplished during the sprouting phase.

Master Formula

Yield: 1 loaf (recipe can be extended to any size using formula percentages)

16 oz. (or 100%) sprouted whole-wheat flour
1 t. (or 1.65%) salt
1½ t. (or 1%) instant yeast
14½ oz. (or 90%) water, room temperature

Method: Mix flour, salt, yeast and water on slow speed with paddle (not hook) for 1 minute. Let dough rest for 5 minutes. Increase to medium speed; mix for 2 minutes. Remove dough to lightly oiled work surface; perform one stretch and fold (S&F). Transfer dough to oiled container (or cover dough on oiled work surface with bowl); perform three additional S&Fs at 5-minute intervals (can be extended to up to 20 minutes each). After final S&F, place dough in oiled bowl. Cover; ferment for 60-90 minutes at room temperature (shorter if using proof box). Shape dough for either sandwich loaf or hearth baking. Mist top of loaf with pan spray; cover loosely with plastic wrap (for hearth baking, can use a couche). Proof for 60-80 minutes, or as needed. For hearth bread, bake at 450°F with steam for 30-35 minutes. For sandwich loaf, bake at 375°F for 45-55 minutes.



versions that could coexist with these dietary trends,” Reinhart says, adding that he determined long ago to never use white flour in any bread he made.

“GOOD” DEFINED

By his definition, Reinhart says a good whole-grain bread should have large, open, irregular holes and a cool and creamy (not starchy) mouthfeel with a brittle and crackly crust. When baked at the right temperature, the starches gelatinize for the creamy feel, the sugars caramelize for the brown, crispy crust and the proteins coagulate, affecting the cell structure.

At FireLake Grill House and Cocktail Bar at Radisson Plaza Hotel Minneapolis, executive chef Paul Lynch offers whole-grain ciabatta bread and his prized wild-rice/cranberry bread baked in a brick oven. Additionally, for the past two years, he has made all the bread eaten in his home, and, after experimenting, he rotates through six whole-grain breads using such grains as farro, cornmeal, oats and barley flour.

He cautions that if whole grains in bread flour exceed 55%, the result will be dense, which might be desirable for flatbread, crackers or unleavened bread, but otherwise, he says, 40% to 45% needs to be white flour with vital gluten added. “Substitute no more than 50% with various whole grains.”

Wild rice became his choice grain for the restaurant bread as part of the Minnesota/Great Lakes regional cuisine he aims for. Adding rice to bread dough is not unique, but for the best flavor and nutrition, Lynch cooks the rice just to the balloon stage, drains it, cooks it down and uses the drained water in the bread dough.

His advice to those developing their own whole-grain bread is to experiment with such whole grains as barley, wheat, rice, red rice and quinoa. Boil each like pasta in salt water, and

test for doneness after 8 minutes. Smaller grains cook more quickly, and some grains need to boil 45 minutes to become tender. “When you like the texture, it’s cooked. Drain it like pasta and go forward,” Lynch says.

Of all the grains, wheat is the easiest to work with in making whole-grain breads. “It’s the king of grains because it has the most gluten,” says Reinhart. The wheat family is large, encompassing spelt, emmer, farro, einkorn, Kamut®, durum and bulgur. Rye also contains sufficient gluten to make bread, followed by barley.

GRAIN NUANCES

As you evaluate the whole-grain possibilities for your bread basket, consider also the method of milling, as it plays a significant role in the flavor and nutritional outcome.

Craig Ponsford, owner of Ponsford’s Place, a bakery and innovation center in San Rafael, Calif., is a champion of whole-milled wheat after working for an even bigger champion of the whole-milled process, Joe Vanderliet of Certified Foods Inc., Woodland, Calif., with his Joseph’s Best Flours brand.

The standard milling process used by large manufacturers separates the bran and germ from the grain and mills them separately, Ponsford says, referring to this type as endosperm flour. To make whole-wheat flour, mills add the parts back in.

The purpose of separating out the parts is to make white flour. “Back in the olden days, they [grains] were dirty. Kings got the purified product,” Ponsford says. “Over time, engineers were masters at purifying and cleaning, and that’s what these giant mills are based on in making the whitest, cleanest flour possible, and they do it beautifully. Maybe 2% to 10% is turned back into whole wheat.”

Whole-milled flour doesn’t go through the separating process. Ponsford says



GRAINS waves of grain

when he worked for Vanderliet, “I discovered whole-milled has a completely different flavor, and it also has a completely different performance.” Even better, he says, it seems to affect people differently than endosperm flour, and those with gluten allergies tend to digest whole-milled flour better.

The better flavor of whole-milled wheat comes partly from the fat in the wheat berry, which is squashed and distributed throughout. The separating process of endosperm flour removes the fat, Ponsford says. He suggests that chefs look for whole-mill millers in their area, which includes stone-ground mills. These micro-millers used to be the only kind in the U.S., and are easily found across the country.

The next big whole-grain trend on the cusp of exploding is sprouted-grain flour. “It’s a new category, now early in its game with a limited supply,” says Reinhart of Johnson & Wales. In the process, grains (wheat, corn or oats, for example) are sprouted first, then ground, and vital gluten added to help it perform like regular flour. “It’s almost a vegetable,” he adds.

Some consumers already are attuned to it, especially those who purchase Ezekiel 4:9® bread, which is well-known as made from sprouted-grain flour.

Whole Foods Market has offered bread made from sprouted grains for several years, says Andy Clark, facility team leader for the chain’s Rocky Mountain Bakehouse, Aurora, Colo., one of five large regional bakeries that provide the stores with baked goods. His facility produces three sprouted-grain breads. The most popular is Sprouted Seeducation, which is a sprouted-seed version of its popular Seeducation™ bread made with molasses, honey and white flour. Sprouted Seeducation combines honey and whole seeds and berries. Another is Sprouted Fourteener, with more than 14 grains, whole almonds and raisins. Finally, the company makes Sprouted Muesli, with rolled oats, raisins and dried apple.

Clark credits To Your Health Sprouted Flour Co., Fitzpatrick, Ala., for its mission to make more-healthy flour more widely available with its sprouted-grain flour. “The work they do is groundbreaking, and will enable grains to make it to the larger market,” he says. “Any bakery could buy it and bake with it.”

He notes that sprouted flour was popular during the 1970s hippie movement. “People liked the idea of eating something already partially digested. Sprouting does the work of breaking down parts of the grain for you,” he says.

OPPOSITE

TOP: No one could resist chocolate in bread, as in this white/whole-wheat *pain au chocolat*.

BOTTOM: Pumpkin seed whole-grain oval.

KNOW YOUR GRAINS

The Whole Grains Council, Boston, highlights the most common grains, which when made into whole-grain flour and bread, prove tasty and nutritious.

Amaranth is often referred to as a complete protein because it contains lysine, an important amino acid other grains don’t have.

Barley has the highest fiber content of all the whole grains, and is high in antioxidants, vitamins and minerals.

Buckwheat has high levels of copper, manganese, zinc and soluble fiber.

Dried corn, including whole cornmeal and popcorn, has more than 10 times the vitamin A of other grains and is high in antioxidants and carotenoids.

Millet, a group of several different small-seeded grains, is especially high in magnesium.

Oats is higher in protein and healthy fats and lower in carbohydrates than many other whole grains.

Quinoa is one of the only plant foods considered a complete protein, meaning it offers all the essential amino acids in a healthful balance.

Brown rice has much higher levels of many vitamins and minerals than white rice and is an excellent source of manganese.

Rye is a rich, versatile source of dietary fiber and contains phenolic acids and other compounds with potential bioactivities.

Sorghum is commonly eaten with all its outer layers, allowing it to retain most of its nutrients.

Teff is the grain with the highest calcium content and is an excellent source of vitamin C.

Triticale, a hybrid of durum wheat and rye, requires few pesticides, reduces soil erosion and can capture excess soil nitrogen.

Wheat encompasses many varieties, and is the most common grain used in breads and pastas.

OUTSOURCE

Not all operators are set up to make their own bread. “Partner with a local bakery. We can’t all be experts,” says Harriman with the Whole Grains Council. For another bread solution, she points out the pioneer of par-baked bread, La Brea Bakery, Van Nuys, Calif., which offers a signature whole-grain bread that foodservice operators can simply finish baking on premises.

When outsourcing from a local bakery, Lynch with Fire-Lake Grill House suggests visiting the bakery in the morning to meet with the baker and owner together. Find out the breads they already make, then look for ways they could customize a dough for your operation. “If you have enough volume, they’ll do anything for you,” he says. This may include making a shape you want, or rolling the dough in barley or slivered almonds, for example.

“If you aren’t already incorporating whole-grain bread in your menu, you’re late to the party,” Lynch says. “Get on the boat. It’s what customers want.” ■

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