





Message from the President

The pandemic increased cooking at home substantially, which continues, with wheat foods as one of the most popular items. In this issue of Kernels, we examine the drivers of this trend and the forecast for continued growth in demand for wheat flour.

We also introduce our readers to Wendy's chef Jay Drumm in our next installment of "Chef's Corner" as he shares his experiences, tips and the best advice he has ever received. Our WFC member profile features Corbion, a supplier of innovations for food preservation, clean label claims, sustainability and service solutions. Michele Tuttle shares how she faced one of her biggest fears competing in a recent triathlon.

Finally, you'll find a couple of fall recipes to accompany the seasonal change. Please share Kernels with your colleagues, clients, friends and family.

Tim O'Connor
President, Wheat Foods Council



Tune in to the third episode of "<u>Chef's</u> <u>Corner: Food for Thought"</u> featuring Jay Drumm, Senior Specialist of Culinary and Innovation for Wendy's. Jay shares his story, including the best advice he ever received, what he thinks about never having "a typical day" on the job, his favorite tip that every chef should know, and much more!

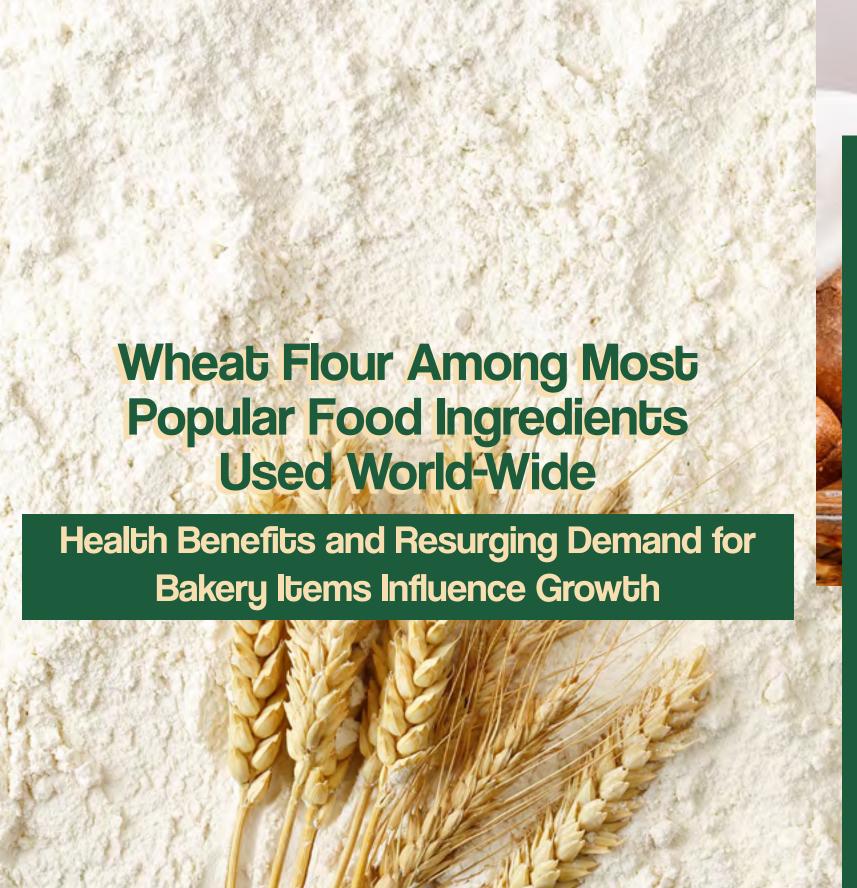
The Chef's Corner video series is the latest addition to The Wheat Foods Council's growing library of video resources about wheat foods, nutrition, and related topics. Each video of Chef's Corner introduces a different chef or cook from various culinary backgrounds to discuss their current position, experience, cooking tips and more. These videos are interesting and fun, while imparting a bit of knowledge, exploring wheat foods and, of course, highlighting the guest chef.



Other chefs featured on Chef's Corner include Courtney Bufford, Culinary Manager at McAlister's Deli, and Kirk Borchardt, Executive Chef Advisor at Ardent Mills.







Consumers' love affair with bread has continued long past the early days of the pandemic when panic shopping emptied bread and baking aisles. Wheat flour currently represents one of the most popular food ingredients used worldwide. In 2020, the global wheat flour market was valued at \$160 billion, and it is expected to grow over the next five years according to <u>Research and Markets' Global Wheat Market Report</u>.

Health is top priority for consumers in 2021. People are looking to boost immunity and improve nutrition. Foods made with whole wheat flour deliver significant health benefits, such as lower cholesterol levels, improved metabolism, weight management, and blood sugar regulation. Foods made from enriched wheat flour like bread, cereal, and pastas are fortified with folate and essential vitamins and minerals, and contribute to higher quality diet that is affordable.

Baking companies can leverage consumer interest in health by improving the nutritional profile of their products. Possible approaches include reducing sugar and adding nutrient dense ingredients such as fruit, nuts, and seeds. Another potential approach is adding exotic and indulgent ingredient flavors like ginger and turmeric to boost the immune system, according an *Innova Market Insights' report*.



There are several drivers behind the global popularity of wheat flour.
These include factors like population growth, higher disposable income, increased demand for bakery products, and evolving post-pandemic lifestyles.

For example, many consumers choose to cook and eat at home more often due to health concerns, while others have more time to cook since they are working from home. Bread and bakery items like sandwich bread, pizza crusts, tortillas, and pasta form the basis of meals and shelf stable, convenient, versatile, and deliver nutritional value with great taste.





Cost is another key driver: wheat flour is more affordable than flours made from other grains, making it more accessible to all socio-economic groups. And, since wheat is a primary ingredient in bakery and fast-food products like bread, noodles, pasta, and cereals, the increased demand for these products has boosted sales of wheat flour across the globe, according to the Global Wheat Market Report.

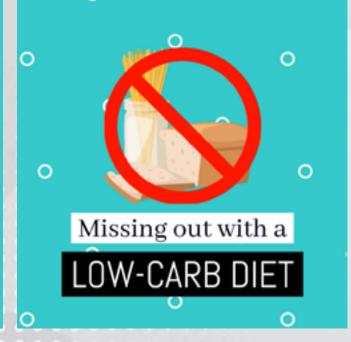
Wheat flour's appeal as a food staple stems from its versatility, affordability and health benefits. Evolving lifestyles and the continued popularity of bread and bakery products predict steady growth for the wheat flour markets around the world.

Thinking about going on a Low-Carb Diet? Think Again!

Check out these videos to get the facts about a low-carb diet!







Find more Wheat Foods Council videos on our YouTube Page: https://www.youtube.com/wheatfoodscouncil





Meet Corbion, the Wheat Foods Council's Newest Member

Corbion creates cutting-edge innovations for the preservation of food and food production. It is the global market leader in lactic acid and its derivatives, and a leading supplier of emulsifiers, functional enzyme blends, minerals, vitamins, and algae ingredients. In short, Corbion enables bakers to produce high quality bakery products, while extending shelf life.



We invited Mark Hotze, Corbion's Vice President, North America, and Jennifer Lindsey, Vice President, Global Marketing, to share their insights about the company's innovations and bakery solutions that impact food, producers, and the baking industry.

MEMBER PROFILE

What are the most important ways that Corbion impacts the baking and wheat industries?

Mark: Our Corbion strategy frame is "Preserve what matters." We are the little guy that delivers a big impact on the baking industry. We are the 2% or less listing on product labels, but we enable the larger bakers to make the highest quality loaves that start flavorful, stay fresh and remain shelf stable which helps eliminate food waste. Our solutions help our customers deliver on consumer needs, and ultimately be successful.

Currently, there are significant gluten shortages. Imported gluten prices have doubled. Wheat yields have suffered due to drought and other issues, affecting both wheat protein and flour quality. Corbion ingredients help by improving process tolerance in the wheat protein, which keeps the quality of the bread high, and lowers operational costs.

In what ways does Corbion help its customers address current bakery challenges, like shifting purchase behavior, cleaner labels and premiumization?

Mark: The clean label buzz has been out there for a while. At the end of the day, if the product doesn't taste good, health claims or halos will not matter. Corbion helps bakers develop the sensory characteristics that drive consumer purchase for their products. We enable them to achieve the desired claims on the label (e.g, whole grain, high fiber, etc) or meet the demand for functional benefits and preserve taste and texture. For example, dough strengthening is key for creating a quality loaf using 100% whole wheat flour with added nuts and seeds. Dense ingredients combined with high-speed baking is hard on gluten structure. Corbion solutions help strengthen dough to ensure better quality.

Jennifer: Corbion offers practical service solutions as well, like sending our tech staff to work on solutions with customer R&D, applications and operations teams, or providing digital tools for formulation modeling that bring products to market faster.

We've also been collaborating with clients' marketing teams to create new front of pack claims that differentiate their product from others. The pandemic saw an enormous uptick in online food shopping behaviors. For many consumers, this shift will 'stick,' because it's easy and convenient. However, it reduces consumer engagement with physical products, and curbs impulse buying. Google and Amazon have taught consumers how to shop by attributes, and Corbion works with bakers to market products accordingly.



How do Corbion technologies help baking manufacturers with solutions to create products for those with allergies to eggs, gluten, or dairy?

Mark: It's a challenge. When a person bakes in their home, they use eggs and milk. These ingredients are functional in the baking process: albumin from eggs adds structure to the baked goods and also acts as an emulsifier, and lactose from milk adds color. These allergens are essential to how ingredients react, and are present in recipes for a purpose. They must be replaced with substitute reagents that produce the same functional results. Consumers do not understand that replacing allergens is complicated. To meet the demand for clean labels, the replacement ingredient must be natural as well as functional.

Food additives and preservatives are negatively perceived by many consumers. How does Corbion address consumer demand for clean label and non-GMO bakery products?

Mark: It's tough to communicate to consumers the importance of food preservation. If baked bread wasn't preserved, it would mold within 48 hours. Would you prefer shelf stable bread that lasts in your pantry for 14-21 days or green mold in 2 days? Corbion enables bakers to use fermented ingredients that function as natural antimicrobial and mold inhibitors. For example, the most widely used artificial preservative is calcium propionate which is not in line with consumer trends for cleaner labels. Corbion uses cultured wheat starch and cultured dextrose to deliver natural preservation options for bakers.

Jennifer: Fermentation has naturally preserved food for thousands of years and consumers are comfortable with fermented products like cheese and beer. Corbion enables our customers to use similar fermenting processes to naturally preserve baked goods. We are simply building on what nature provides.



How is Corbion working with the baking and wheat industries to improve sustainability practices?

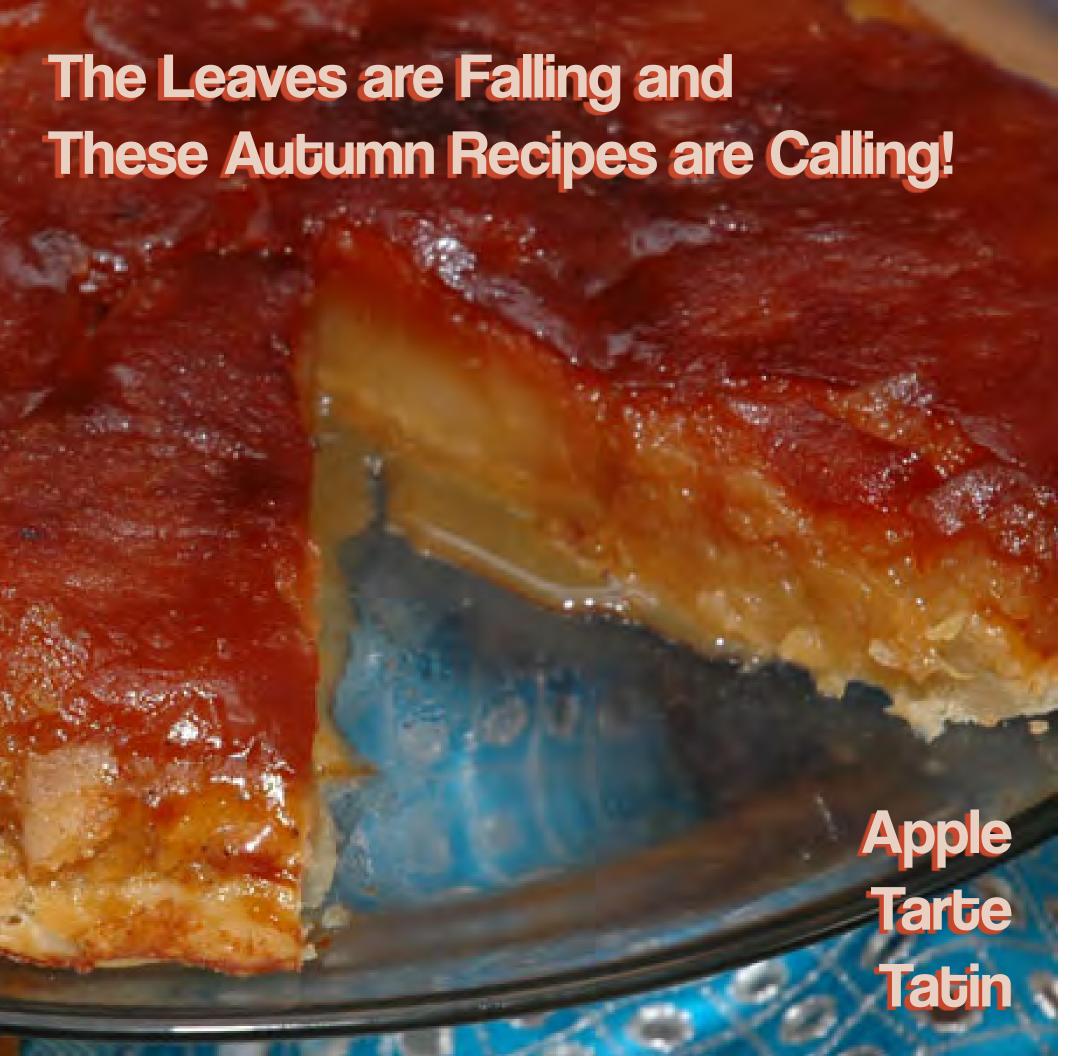
Mark: Corbion is committed to sustainability. It's what we do. Our focus on the food preservation eliminates food waste and supports sustainability goals, helping both our customers and the planet. Our work also reduces scrap waste at manufacturing plants which sounds small but isn't. For example, if Corbion's contribution results in a 1% reduction of production waste this equates to a \$250,000 reduction in operating costs annually. We are the little guy doing big things. Our baking solutions enable bakers to play in this space and add sustainability to their front of pack appeal.

Jennifer: We work with several 3rd party groups to ensure transparency and alignment with sustainability goals and progressions. From EcoVadis, where we rank in the top 1% of suppliers with a *Platinum rating*, to CDP.

Finally, what does Corbion like most about its new association with the WFC?

Mark: We are a relatively new member, and it's been very good. It has been tough to get together during the pandemic, so we have enjoyed networking with other WFC members, especially the millers in the group. We supply fortifications and natural preservatives used in milling, so it's good to be able to make that connection.

For more information about Corbion, visit: http://www.corbion.com/



Ingredients

Equipment 10-inch cast iron skillet 8 large Granny Smith apples 2 tablespoons fresh lemon juice 34 cup sugar 4 tablespoons unsalted butter 7 Oz. Crème Fraiche 1/2 Package of Puff Pastry Sheets

Directions

Preheat oven to 375 degrees. Position rack in bottom third of oven. Peel, quarter and core the apples. Place in a large mixing bowl and toss with the lemon juice. Set aside.

Place the sugar in a 10-inch skillet or tarte Tatin pan over low heat. When some of the sugar begins to melt, begin stirring with a wooden spoon until all the sugar is melted and begins to turn a pale golden color.

Remove the pan from the heat. Begin arranging apple pieces in the skillet, rounded side down, in concentric circles, fitting them together as close as possible. Fill the center with 2 or 3 apple pieces, as needed. Arrange the remaining pieces, rounded side up, in concentric circles, filling in the gaps left in the first layer.

Cut the butter into small pieces and scatter over the apples. Place the pan over medium heat. Cook until the sugar turns a deep caramel color and the juices released from the apples are nearly evaporated, about 15 to 20 minutes.

Roll the dough and cover the apples according to the directions in the pastry recipe. Bake until the crust is golden brown, about 25 to 30 minutes. Remove from oven and set aside for 10 minutes.

Run a small, sharp knife around the edge of the tarte to loosen. Place a large plate or platter over the skillet. Holding the plate and skillet together using 2 kitchen towels, carefully but quickly invert the tarte onto the plate. Let stand a few minutes to cool slightly.

Cut into wedges and serve with dollops of creme fraiche.

Nutrition

Servings: 8

Amount per serving: Calories 439, Total Fat 28.2g, Saturated Fat 17.7g, Cholesterol 95mg, Sodium 64mg, Total Carbohydrate 49.7g, Dietary Fiber 5.4g, Total Sugars 42g, Protein 0.7g, Vitamin D 4mcg, Calcium 3mg, Iron 1mg, Potassium 245mg.

Ingredients

- 1 cup uncooked wheat berries
- 2 cups boiling water
- ½ cup dried porcini or shitake mush-rooms (about ¾ ounce)
- ½ cup finely chopped fresh parsley
- 3 garlic cloves, minced
- 1 ½ teaspoons olive oil
- 1 cup diced onion
- 4 carrots, sliced
- 6 cups reduced sodium chicken broth

- ½ cup white wine (or unsweetened apple juice can be substituted for wine)
- 1 tablespoon tomato paste
- 1 ½ cups cooked whole-wheat pasta such as penne
- 5 ounces fresh spinach
- ½ teaspoon salt
- ¼ teaspoon black pepper
- 6 tablespoons (1 ½ ounces) grated fresh Parmesan cheese

Directions

Place wheat berries in a medium saucepan; cover with water to 2 inches above wheat berries. Bring to a boil; reduce heat, and cook, uncovered, 1 hour or until tender. Drain.

Combine 2 cups boiling water and mushrooms in a bowl; cover and let stand 30 minutes. Drain mushrooms, reserve soaking liquid. Discard mushroom stems; thinly slice mushroom caps.

Combine parsley and garlic; divide into 2 equal portions.

Heat olive oil in a large Dutch oven over medium-high heat. Add cooked wheat berries, mushrooms, ½ of parsley mixture, onion and carrots; sauté 5 minutes.

Stir in reserved mushroom liquid, broth, wine and tomato paste; bring to a boil. Cover, reduce heat, and simmer 30 minutes.

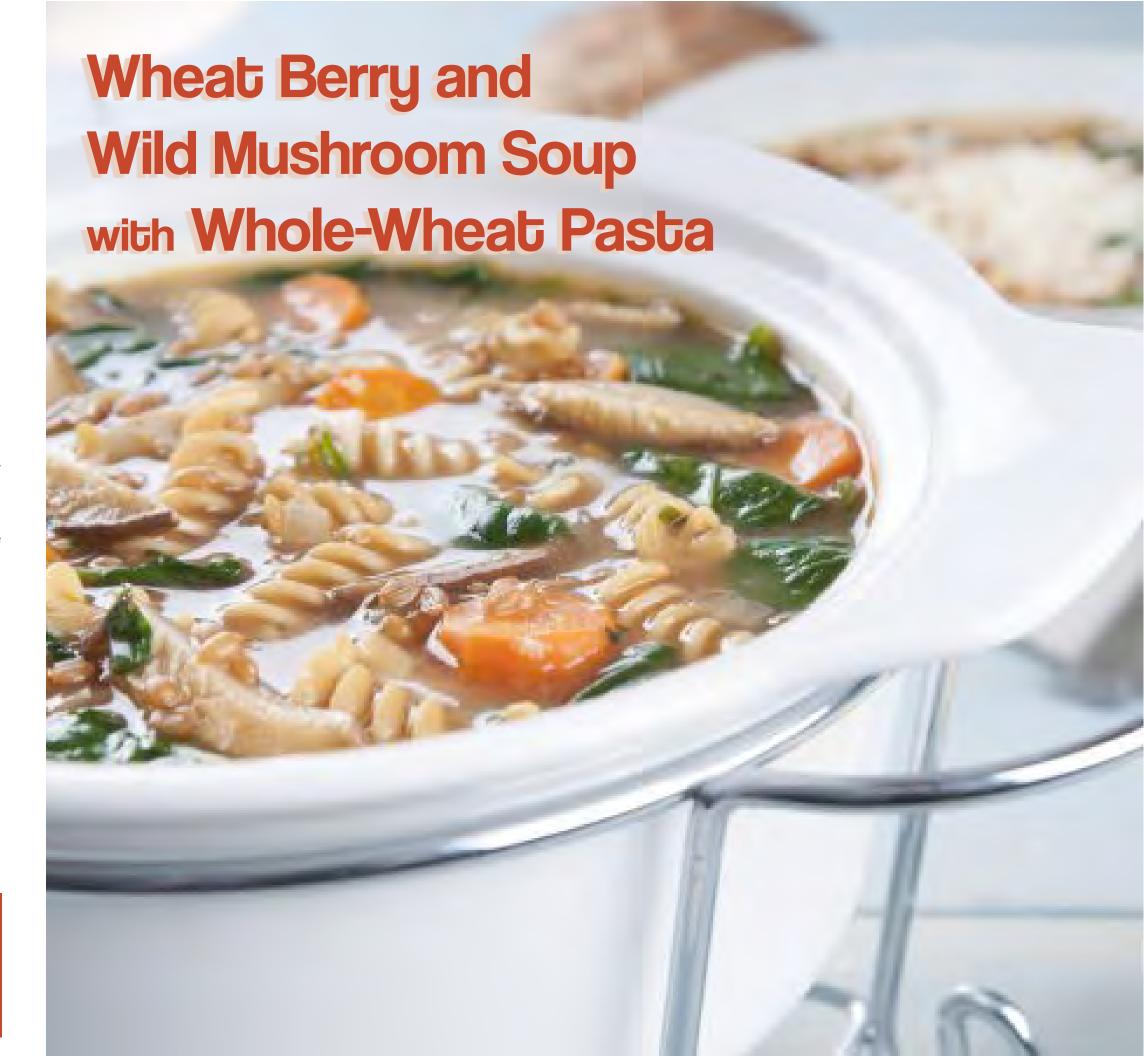
Add pasta, spinach, salt and pepper. Cook for 1 minute or until thoroughly heated. Stir in reserved parsley mixture.

Spoon soup into bowls and top with cheese.

Nutrition

Servings: 8

Amount Per serving: Calories/Serving 231, 13 g Protein, 35 g Carbohydrates, 7 g Fiber, 3.5 g Fat (1 g saturated), 4 mg Cholesterol, 50 mcg Folate, 4 mg Iron, 692 mg Sodium









The fun continued from there: a 1 mile ocean swim, 12 mile bike ride, and a 5 mile run including 2 miles of sand running on the beach. "It was seriously tough, but I LOVED it!" And, sometimes fun leads to success. In this case, she placed 4th over all females, won her age group, and had the fastest female bike split of the day.

Unfortunately, the 2021 World Championships in Bermuda was canceled due to Covid so Tuttle will not be able to represent the Wheat Foods Council until 2022. She plans to compete in Draft Legal National Championships in Tempe, AZ this November.