

# The Rise of Local Flour

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You're a farmers' market regular. You buy local produce, meat and fish, but what about flour? Whole grains and flour have long been in a hard to reach corner of the local food movement. In some cases, that's because many local markets, even robust ones, don't offer local grains. In others, it's because customers don't even know to look for local grains.

Until the early 20th century, small mills were the foundation of local food systems in the United States. And then they weren't. For over a century now, most of the bags of flour in the grocery store, where most people buy flour, have been indistinguishable from each other. Several factors, including improved transportation infrastructure, a centralized grain production system and a process that allowed the grain to be stored for long periods, led many small mills and farms to close. But for nearly two decades now, grassroots groups of farmers, millers and bakers have been working to build back those local grain systems and shift what we think of as flour.

“As a chef and baker who follows the rhythm of the seasons, these new, yet ancient, ingredients were impossible [for me] to ignore,” says Roxana Jullapat, co-owner of LA-based Friends and Family and the author of the new cookbook “Mother Grains: Recipes for the

## Grain Revolution.

Jullapat began seeing small milling operations sprout up in different regions of the country several years ago and connected with local farmers in Southern and Central California, looking for ways to bring the grains they were growing to market. She worked with local millers, including Los Angeles' Grist & Toll, to purchase whole grains like barley, sorghum and buckwheat, which she used for the cafe's heirloom grains menu. While Jullapat and others had success finding and promoting local grains, it remained a small market, available only by buying direct from small farmers, millers and grain collectives, including Community Grains in California, GrowNYC Grains, Carolina Ground and Maine Grains.

For most shoppers, even ones who value local food, their primary flour purchase has been made at the supermarket, instead of the specialty goods store. So it's no wonder that, as people tried to find comfort from a world turned upside down, trading work attire for flour speckled aprons, they reached for bag after bag of the industrially produced stuff, buying so much flour that supermarkets couldn't keep it in stock. That's when those in the know turned to local flours. Because while supermarkets sold out of industrialized flour, there was plenty available from small flour mills.

"COVID created an opportunity to get our product in front of people who discovered the joy of local flours and are now regular users," says Amber Lambke, the founder and CEO of Maine Grains, which since 2012 has milled organic and heritage grains grown by farmers throughout Maine.

Consumers spent roughly 100 percent more on flour in March and April 2020 than the previous year, according to FoodDive. While the majority of this was probably all-purpose flour from the supermarket, micro mills like Maine Grains reported a shift in customers during this time. For instance, before the pandemic, about 90% of Maine Grains' business was wholesale sales of local grains, and 10 percent was retail, but in 2020, they saw those numbers change to about 50-50. As we start to emerge from the pandemic into a new normal, Maine Grains is seeing wholesale sales pick up again while continuing to see online sales to individuals remain high.

## **What's Different About Local Grains?**

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If you've never had flour made from local whole grains, the first thing to know is, it's completely different than what you're used to. It smells different, it feels different, and it, of course, tastes different.

Standard, commercialized wheat varieties are grown and milled to be precisely the same. After harvesting, that wheat is roller-milled, which makes it shelf-stable but strips it of its nutritional components, including fibrous bran and wheat germ. Vitamins and minerals including iron, folic acid and niacin are then added to enrich the flour. At the end of the process, the flour is exactly the same bag to bag.

In contrast, small-batch flours that are stone-ground retain the germ and bran. They spoil more quickly, the flavor might be different, the gluten level might vary and the water absorption changes bag to bag. It takes some getting used to, but for bakers like Jullapat and David Vacca, the head baker at [Nana's Bakery & Pizza](#), an organic bakery and pizza shop in Mystic, Connecticut, it's worth it.

“You have to be willing to experiment and fail, but even if, say, your flatbread doesn't come out pretty, it's going to taste good,” Vacca says. When the bakery opened in 2020, Nana's owners James Wayman and Aaron Laipply were determined to source grains from New England farmers, including Maine Grains.

“There's more variety, there's more flavors, it's fresher,” says Wayman.

From wheat varieties like red and white emmer, spelt, and einkorn to sorghum and rye, flours made from local grains each have a distinctive flavor and aroma. Some, such as soft wheat varieties, tend to be better for pastries, while others, like a hard red winter, give bread a nutty flavor and can produce giant air bubbles in bread.

“The payback in flavor, nutrition, connection, and fun should inspire you to gradually change the way you bake,” says Jullapat. “I want to see you bake with better flour — whole grain, sustainable, artisan flour. And then, I want you to find enough reasons to do it again.”

## Why Don't We See More Local Flour?

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Infrastructure and education are the main barriers farmers and processors face.

In the early 20th century, there were thousands of small mills all around the country, but as grain farming became commodified and milling was commercialized and centralized, most of them closed down. The big players – like General Mills and Ardent Mills – control the majority of the country's grain milling today, producing the white flour you find on supermarket shelves. In fact, only a few companies even manufacture the machinery for small mills, but they are slowly coming back. New American Stone Mills, based in Vermont, is one of the new mill manufacturers, helping to support the regional mills in existence today. Since 2015 they've built more than 150 mills for a variety of customers including bakers and farmers.

“We have access to a stone mill and so we ground [the grains] ourselves, It's really about flavor for us, grinding everyday allows us to have super fresh bread, pizzas, bagels and more,” said Nana's Wayman, who added that if they didn't have access to their own mill to process the grains, they wouldn't be able to use the grains from one of the farmers they buy from, who cannot process it themselves.

The loss of grain mills is just one part of the infrastructure equation; farmers often lack the equipment and the knowledge base for harvesting grains on a smaller scale.

“We work with a couple of different farmers and one is retiring and while we have interest from a young farmer, we need more farmers,” says Elizabeth DeRuff of California’s Honoré Mill, which offers a retail flour Community Supported Agriculture program and one for churches. CSA operators like DeRuff say it’s important that more farmers learn to specialize in heirloom grains, which can be difficult to grow. “And we need more people that understand how to work with grain cleaning equipment.”

Even when the mill infrastructure is in place, farmers and millers still find themselves having to change the narrative of grain economies.

“I was fortunate to have the infrastructure in place,” says Jennifer Lapidus, the author of Southern Ground, who started the mill Carolina Ground in 2012. “But there was education that had to happen.”

While the farmers Lapidus purchased grains from had access to equipment like seed cleaners, they needed to make processing changes – like using food-grade cleaners – that would allow Lapidus to sell the flour commercially. Other farmers she worked with needed to move from commercial varieties to different heirloom grains.

“We’re not going to chase yield, we’re going to chase quality, and it also has to be worth the farmers’ time and money,” said Lapidus, explaining how important it was to work with farmers when starting Carolina Ground. “It was building relationships and saying we want this to be long term.”

Maine Grains and GrowNYC Grains, which has been working to bring local grains to the NYC market since 2004, are also working to address this.

“Our region could use more cleaning, processing, and bagging facilities to ensure smoother transition from the field to the shelf,” says Julia Raggio of GrowNYC Grains. While GrowNYC does not have any processing facilities, they focus on educating consumers and connecting farmers with millers and processors. They provide last-mile distribution of local grains wholesale to institutions around the city, such as senior centers and community-based organizations and consumers through farmers’ markets. They’re hoping that when the New York State Regional Food Hub opens, slated for late 2022, they’ll be able to expand capacity to provide large volumes of grains to commercial kitchens while continuing to educate consumers and wholesale buyers about what makes the product different.

“They [GrowNYC sales representatives] explain why the prices may be higher, or which varieties of wheat are best suited for bread baking, pie crusts, pizza dough, etc. There is a learning curve to using local grains, and to be able to have those conversions allows us to move public understanding forward.” says Raggio.

## **Why are Local Grains Important?**

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The benefit of local grains goes beyond simply their taste. From an agricultural standpoint, local grains are an essential piece of sustainable farming systems. They help build healthy soils as growing grains can prevent soil erosion and add organic matter to soils, building their fertility. At Rooster Farm in Parkman, Maine, Sean and Sandra O'Donnell raise food, animals and grains as part of a small farm ecosystem.

They under sow their grains with clover, which fixes nitrogen back into the soil, which the grains use to boost protein in a healthy crop and grain production rotation. They also grow yellow peas which can be fed to animals or sold as human food. A rotation using grains can create healthy soil and aids a farm in being more climate change resilient. And from a diversity standpoint, using them is helping to preserve the seeds of our ancestors for future generations.

Growing the market for a more diverse range of grains beyond basic wheat extends those benefits even further: more acreage devoted to soil conservation and crops that are less vulnerable to pests and diseases.

“We must remember that no crop grows in a vacuum and the presence of each and every one has a significant effect in the ecology, economy and culture of a region,” says Jullapat.

## **Will the Pandemic Boom Last?**

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“It was crazy,” says Johanna Davis of Songbird Farm, based in Maine, of the pandemic flour boom. In 2014, they started offering a CSA of flours, grains and dry beans grown and processed on their farm and a few other small organic farms nearby. In 2020, they sold out of their shares in two weeks; they opened up an additional 30 shares and sold out again within a couple of weeks. They're expecting to sell out quickly again this year, and while they do offer regular retail purchases of their flours, the CSA is beneficial for them and other grain farmers and millers.

Flour CSAs function much like traditional community supported agriculture (CSA) programs that help fruit and vegetable farmers access capital before the high season starts, during what is traditionally a slow time on the farm. They let consumers help flour producers in several ways, including knowing what the demand will be and reducing some economic risk.

“I think CSAs are such an important piece because it helps everyone on the supply side know they count on the demand,” says Honoré Mills' DeRuff. When people pay up front and commit to a certain number of farms that can create jobs and the income to purchase equipment.”

So far, all the producers we spoke with said that demand for 2021, while not as high as it was during the pandemic's peak, is higher than it was in 2019. They're optimistic that the pandemic may have been a turning point for consumers' demand for local flour, with more and more people ready to reach for a bag of flour different from the last one.

“We saw this shift of people returning to the kitchen, a focus on food sovereignty which is connected to the local mill. If you can’t rely on it at the grocery store but you know it’s in your community it changes your perspective,” says Carolina Ground’s Lapidus.

And while infrastructure and education issues remain a barrier for local grain markets, there’s hope that increased consumer demand and knowledge about local grains will help drive solutions.