



6 immunity boosting ingredients gaining popularity during the pandemic

From honey and ginger to turmeric and oranges, the products that help consumers take better care of themselves are getting a lift.

By Lillianna Byington, Christopher Doering

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As the coronavirus builds fear about staying healthy, consumers are turning to immunity-boosting ingredients for comfort.

From the anti-inflammatory effects of ginger and turmeric to the gut health benefits of fermented foods, ingredients that help shoppers take better care of themselves during the pandemic are getting a boost in demand.

For years, the market for functional foods has been growing. According to Fier Markets, the global market for these ingredients is projected to grow to \$117 billion by 2027 from \$69 billion a year ago — an annual increase of 6.74%. Beneo, a supplier of functional ingredients derived from chicory roots, beet sugar, rice and wheat, estimated 75% of consumers globally said they plan to eat and drink healthier as a result of the pandemic.

"So many people are taking this time to commit to their personal wellness. People are trying to adopt new, healthier behaviors, more exercise. Trying to eat more healthy foods," Joan Driggs, vice president of content and thought leadership at marketing research firm IRI, told Food Dive. "It's not going to go away."

As quarantines push consumer behaviors to even more better-for-you eating habits, here are six ingredients that could benefit.

Honey



Permission granted by Bee K'onscious

Matt Kollmorgen, founder of Bee K'onscious, remembers fostering his love of honey as a child when a fast food chain would give him some with his chicken nuggets. Today, Kollmorgen's upstart honey company is taking a decidedly healthier approach to tout the benefits of the honey he purchases from producers in California, Montana and Brazil.

Unlike most honey sold in the store — which Kollmorgen said has been adulterated, a process that removes the healthy components such as vitamins and enzymes while adding ingredients like corn syrup — the honey he sells comes straight from where it was produced. Kollmorgen sampled hundreds of varieties to settle on the four he sells today, with more expected to be added to Bee K'onscious' portfolio in the next few months.

"We're definitely trying to target the health-conscious person that is looking for alternative sweeteners and natural products, natural ingredients, that is certainly a target," he told Food Dive.

One challenge Bee K'onscious faces is convincing retailers to carry his honey, which costs \$18 a jar compared to roughly \$6 for one on supermarket shelves. "It's all going to come down to we have a high-quality product that is different than anything else ... in some of these retailers," Kollmorgen said.

U.S. honey production totaled 37 million pounds in 2019, down from 44.5 million pounds in 2001, according to data from the USDA's Economic Research Service. Despite the decline, the value of production soared 200% to \$108 million during the same period. The National Honey Board estimated that U.S. per capita consumption of honey is around 1.3 pounds.

In recent years, honey has benefited from its reputation as a natural ingredient and as a healthier sugar substitute. Honey can be used in place of cane sugar to make baked goods such as bread and cereals when it has the same attributes like color, extended shelf life, structure development and browning. It's also rich in antioxidants and can help lower cholesterol.

Despite the increase, Chris Hiatt, vice president of the American Honey Producers Association, said the industry still hasn't done enough to effectively promote its health attributes by conducting studies to show which kinds of honey, depending on the flower, have the greatest impact on health. He pointed to one success story: Manuka honey from New Zealand that has touted its live enzymes, complex sugars and medicinal properties for treating wounds and pressure ulcers, among other attributes. A jar can go for \$50, he said.

"The benefits of raw honey are there and we just need to take advantage of it and promote it better," he told Food Dive.

Ginger



Permission granted by Reed's

Ginger may be most commonly associated with the popular holiday cookie, but the spice is often an additive to drinks, bars, candy, broths, tea and even cocktails.

"Ginger is experiencing unprecedented popularity for a number of reasons," Kantha Shelke, a food scientist and founder and principal of Corvus Blue, a contract food science research and product development firm, told Food Dive.

Globally, ginger production has been on the rise, according to data from Statista. In 2017, 3 million metric tons of ginger were produced around the world, up from 1.72 million tons seven years earlier. With a favorable health halo, a growing number of food and beverage companies have turned to ginger for many of their seasonal products.

Shelke noted that ginger is coveted as an aid in digestion, to prevent nausea and as an anti-inflammatory, among other attributes. It also addresses the consumer's growing need for flavor and interest in natural, clean label products. The global ginger market is expected to post sales of \$4.18 billion by 2022, a compound annual growth rate of 6.5% between 2017 to 2022, Transparency Market Research estimated last year.

Reed's, which uses ginger in its ales, candies, beers and shots, hasn't had any trouble getting its product on shelves because the company is one of a few to use the real ingredient in its products instead of an extract that does not contain the benefits and efficacy of fresh ginger root, CEO Norman Snyder told Food Dive.

Snyder said the rate of repeat customers for the company's ginger beer and ale has steadily increased each month from March through May, a sign that shoppers are doing more than pantry loading. To capitalize on the growing popularity of ginger, it recently partnered with Full Sail Brewing in Oregon to create a naturally brewed, ready-to-drink ginger mule — its first alcoholic beverage offering.

"When this is all over and done, it's going to be a different world," Snyder said. "A lot of habits are going to change and if you're not ready and can't quickly respond to your customer base, you're going to be left at the door."

Turmeric



Steve Buissinne

The golden spice, which comes from the root of the *curcuma longa* plant, is long said to have antioxidants and anti-inflammatory benefits because it has the compound curcumin.

Turmeric has a storied history of use in India as a medicinal herb, and more recently, sales in the U.S. are growing. The spice's sales passed \$32 million in 2017, a 46.7% increase from the year before, according to reports, and it is now the top selling herbal ingredient in the natural space. Its popularity is expected to continue to grow as more learn about its health benefits and companies launch additional products.

Dorot Gardens, a company that makes pre-portioned frozen herbs, garlic and onions, decided to launch Frozen Crushed Turmeric just over a month ago.

Kimberly Cassar, executive vice president of sales and marketing in the Beyond Division at Kayco, which owns Dorot Gardens, told Food Dive that as it has seen consumers gravitate toward products with health benefits, now was a good time to launch. She said that because she is a vegetarian, turmeric has been on her list for a while, believing the category needed more offerings outside of powdered turmeric.

"I love the benefits of turmeric as an anti-inflammatory. It's good for your immune system, it is a great antioxidant, so I love incorporating that into my dishes, but the powder would always make my tofu scramble dry," she said. "So when we talked about this in our innovation meeting, I felt like it would be great if we can offer this ingredient. People are big on it and it's very hard to find."

Cassar said people are incorporating healthier eating into their lifestyle now and as the company rolled out their turmeric, and promoted it on social media, "people are going bananas."

"I think coming out of this, what consumers are going to at least be more mindful of is; 'The better I treat my body, the better my body can survive things like a pandemic.' So I think that's going to be a continued focus for a while," she said.

Oranges



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Consumers are turning back to a vitamin C staple during the pandemic after decades of decline.

Demand for citrus fruits in the U.S. has been up as consumers increasingly look to build their immune systems in the face of coronavirus. In April, retail orange juice sales jumped to the highest levels since 2015.

The Office of Dietary Supplements at the National Institutes of Health said vitamin C can help boost the immune system. About three-fourths of a cup of orange juice gives 103% of the daily amount of vitamin C. High levels of vitamin C can be found in citrus fruits like oranges and grapefruits.

Natalie Sexton, VP of marketing at Natalie's Orchid Island Juice Company, told Food Dive that sales in general have been up for the company, but there was a dramatic increase in orange juice, which

the company classifies as a traditional juice as opposed to some of the younger, more functional beverages on the market today.

"We saw a dramatic increase in sales with traditional orange juice, which we thought was unique because that has been known as a juice flavor that has taken more of a backseat with the consumer because these more functional blends have offered an added value to the consumer," she said. "So it was interesting to see how families and individuals were actually going back to what they've known and what they've traditionally grown up with which is orange juice."

Around the last week of March, Natalie's Orchid saw about a 24% increase in orange juice sales, and then into the first week of April, there was an additional 18% increase — coming out to an almost 50% overall increase in orange juice sales.

When consumers think of vitamin C, they think of orange juice, she said. "It's a traditional item that has always been known to have the highest concentration of vitamin C," she said.

Mushrooms



Coronel, Joshep. Retrieved from [PXHere](#).

With antioxidants, vitamins and fiber, mushrooms are being touted for their role in boosting immunity.

"Eating mushrooms will actually help your body's ability to produce antibodies, which is pretty amazing," William Li, scientist, physician and author of *Eat to Beat Disease*, told Food Dive.

Li said white button mushrooms contain a natural substance called beta-d-glucan, which is a natural fiber. Li pointed to a study at the University of Western Australia where they fed a group of young people just one and a third cups of mushrooms per day. The subjects were able to get a 55% elevation in the IgA level — that's an antibody defense — after a week of eating mushrooms above the group that didn't have the mushrooms.

Although demand for mushrooms was down at restaurants as they shuttered during the pandemic, grocery store sales for mushrooms continue to increase. Retail mushroom sales increased throughout April and jumped 37% alone during the first week of May compared to last year, according to IRI data cited by UPI. In May, the American Mushroom Institute said there would be shortages of the crop for the next six to 10 weeks as demand has fluctuated throughout the pandemic.

Almost 900 million pounds of mushrooms grow annually in the billion dollar industry. The ingredient, used in everything from jerky to bars, is being incorporated into more CPG products by companies looking to tap into its health benefits.

Li said the pandemic has opened a new level of awareness about the importance of the immune system. Some foods, like mushrooms, have "evidence that they can actually not just shore up your immunity, but actually enhance it, boost it and take it to the next level," he said.

Fermented



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From kimchi and sauerkraut to kombucha and yogurt, more consumers have been interested in fermented foods as research and studies show the positive effects it can have on health.

The fermentation process enables bacteria to convert carbs into acids or alcohol, which then serve as a natural preservative. In recent years, fermented foods have gained more popularity and the pandemic could push that even further. Tech-based management platform Userve analyzed data from their customers and found that fermented foods consumption jumped 149% in 2018.

Physician-scientist Li said that fermented foods are present across many ancient cultures. In the old days, fermented foods were developed in order to be able to preserve foods for long periods of time, he said.

Many ask how a food that's been around for months or longer could last because it would grow bacteria. Li said the growth of the beneficial bacteria overwhelms the bad bacteria in fermentation.

When eating fermented foods, consumers are ingesting probiotics and feeding healthy gut bacteria, he said.

A common denominator of many fermented foods is that they actually contain a lot of lactobacillus bacteria, which is a natural bacteria in the gut.

"When we have more lactobacillus, that's a sign of a healthy gut ecosystem," he said.

During the pandemic, Li said there was a study conducted in China that looked at the gut microbiome, the diet and the immune system of people who had more serious COVID-19 symptoms versus less serious cases. The study found that the people who had a milder form and were more protected from having serious illness also had more lactobacillus in their gut.

"We're still just figuring out this disease, but interestingly, even with COVID-19, we're beginning to find some important connections between gut health and our overall health," Li said.