

# What Are the Benefits of Jackfruit?

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#### **STORY AT-A-GLANCE**

- > Hailed as a "miracle" fruit and loaded with nutrition, eating just 10 or 12 bulbs of this fruit is so filling and offers so much energy; it tastes like pulled pork and serves as a meat substitute
- > As a food, jackfruit is extremely versatile, used to make jam, juice and ice cream; dried and ground to make curry and stir fry; and for vegetarians, as a meat substitute
- > Besides high amounts of protein, jackfruit also provides lots of fiber, vitamins C and A, potassium, calcium and iron, which relates to disease prevention and even removal of the heavy metal cadmium
- Jackfruit has four other important functions as a crop, as it's used to feed farm animals; the bark makes an orange dye; the tree produces a glue-like substance and provides lumber

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What large, exotic fruit is related to breadfruit, hailed as a "miracle" crop that could help feed the world and tastes like pulled pork?

Give up? The answer is jackfruit, aka Artocarpus heterophyllus. Common and relatively inexpensive in the Philippines, Jamaica, Southeast Asia, Brazil and other tropical climates, it has shown up more often in American grocery stores.

While jackfruits are similar in color to the inside of **kiwifruit** when they're not yet ripe, and later brown, the similarity ends there because **jackfruits** are huge. A single fruit can weigh from 10 to 100 pounds, with skin that's either a tightly packed network of spiny knobs or a flattened surface more like that of a grapefruit.

They grow on trees as high as 50 feet (although they don't thrive in cold temperatures), making them the largest fruit tree in the world. Jackfruit trees are perennial, so replanting isn't necessary. Two growing seasons produce 150 to 250 jackfruits per tree, annually. That's a lot of food when you consider how large they are.

While many might think jackfruit is a "throwaway" because there are so many other delicious fruits abundantly available in every grocery store, such as bananas, watermelon, apples and strawberries, this jumbo fruit is much more than it first appears, as it could literally save millions of people from starvation.

One review<sup>1</sup> recorded a comprehensive list of the many uses for jackfruit as a food, noting studies in regard to preparations and preservation, and noting its use as a traditional medicine due to compounds, such as fatty acids, ellagic acid and amino acids like arginine, cystine, histidine, leucine, lysine, methionine and threonine.<sup>2</sup>

As Shyamala Reddy, biotechnology researcher at the University of Agriculture Sciences in Bangalore, India, noted:<sup>3</sup>

"Jackfruit is a miracle. It can provide so many nutrients and calories everything. If you just eat 10 or 12 bulbs of this fruit, you don't need food for another half a day."

## **Jackfruit's Physical Characteristics**

Here are a few more interesting facts: Jackfruit trees, related to the **mulberry** and fig, grow fruits not only on the branches, but also on tree trunks. Waiting until they're so ripe they drop from the trees, however, renders them too ripe to eat; they need to be picked for optimal quality. In fact, unripe specimens exceed the quality of overripe ones.

Exuding a strong, sweet, fruity scent (as well they should), a jackfruit is quite dense and milky white when you cut into it, with the outside lining rimmed with a wide lining of hundreds of fleshy "bulbs" or lobes, which contain highly nutritious seeds. They're also amazingly versatile.

Besides eating the bulbs in-hand, jackfruits can be used in jams, juices and ice cream, or added to soups. The fruit can be roasted, dried and ground to make jackfruit curry or stir fry, as well as fruit dishes. NPR's The Salt notes its distinct flavor:

"The taste was described as 'mellow mango,' a little peachy, a little pear-like. The texture was compared to chunky applesauce or overripe banana. Also a little mealy and stringy."<sup>4</sup>

That "stringy" quality comes in handy, hinting at what adventurous chefs have discovered: the jackfruit's meat-like quality many people crave. After cooking for an hour or so, unripened jackfruit provides the flavor and mouth-feel of **pulled pork**. In fact, jackfruit has become more popular in vegan and vegetarian circles as a meat substitute.

However, after harvesting, jackfruit won't last more than a few weeks, so to preserve it for later consumption, it's often canned or dried to make chips. It can also be mixed with coconut, bananas and honey for a popular dessert common in India.

## **Jackfruit Nutrition for Food and Healing**

Jackfruit, as one might surmise, is very "foody." One cup (165 grams) contains 2.4 grams of protein, 2.6 grams of **fiber** and around 190 calories, making it filling and nutritious. Its high fiber content acts as a laxative, moving food through your colon for smooth elimination to help prevent waste from sticking around and clogging your colon.<sup>5</sup>

Even the seeds are rich in protein, potassium, calcium and iron. Just 3.5 ounces provide 7 grams of protein, 38 grams of carbohydrates and 1.5 grams of fiber (6% of the dietary reference intake (DRI)). According to Livestrong:<sup>6</sup>

"Fiber helps fill you up, making it easier to lose weight, and may lower your risk for heart disease, ... high blood pressure and constipation. Jackfruit seeds also provide resistant starch, which may help improve blood sugar control and keep your gut healthy."

The DRIs of several jackfruit components are very impressive, as well: About 7 tablespoons (100 grams) of jackfruit contains 23% of the DRI in vitamin C, which not only helps fight infection, colds and flu, but also fights the free radicals that can gang up and weaken your immune system.

While there's not a huge amount of vitamin A, which contains flavonoids such as betacarotene, xanthin, lutein and beta-cryptoxanthin, there's enough to positively influence your antioxidant levels and improve both your skin and your vision, and offer protection from lung and mouth cancers.

## A Good Source of Folate, Calcium and Other Notable Nutrients

Significantly, jackfruit peel has been cited in studies for its ability to remove the heavy metal cadmium,<sup>7</sup> a known human carcinogen that appears to act in two ways: It harms DNA directly and disturbs a DNA repair system that helps to prevent cancer.

Another reason the vitamin A content in jackfruit is important is that in 2010, one study revealed a serious vitamin A deficiency in Panamanian and Central American populations,<sup>8</sup> which this crop could conceivably help alleviate all by itself.

Further, the same amount nets 25% of the pyridoxine, or vitamin B6, you'd need in a single day, which one study showed helps to slow the rate of brain atrophy and cognitive impairment common in Alzheimer's and other forms of dementia.<sup>9</sup>

Additionally, jackfruits have high amounts of niacin, riboflavin, folate, calcium, iron, manganese and magnesium, as well as potassium, which is important for optimum function of cell and body fluids to help control your heart rate and blood pressure.

#### The Amazing Jackfruit: Exotic, Versatile but Underappreciated

According to Business Insider,<sup>10</sup> jackfruit is a nutritional boon to people in Vietnam, Malaysia and Bangladesh, where it's the national fruit and second only to the mango in importance. Jackfruit is so important in Bangladesh that if there's room, everyone grows them, not only to feed people, but for other uses:

- To feed goats and other farm animals
- The orange bark has been used to dye the traditional robes worn by monks
- The trees produce a latex-like substance that can substitute for glue
- Wood from the gigantic trees is also used for lumber

Since one jackfruit tree produces goods for five different uses, growing them could make the country wealthy and, in fact, provide more than half the average monthly salary for just one worker, which Business Insider reported in 2015 to be around \$295, compared to the average income of \$3,236 per month in the U.S. However, as NPR's The Salt reports:<sup>11</sup>

"Yet the jackfruit is 'an underutilized crop' in the tropical-to-subtropical climate where it thrives, says Nyree Zerega, [Ph.D.], director of the graduate program in plant biology and conservation at Northwestern University and the Chicago Botanic Garden.

In countries like India and Bangladesh, where the jackfruit was once widely cultivated, it has fallen out of favor."

As a food, unfortunately, a lot of the jackfruit grown in India goes to waste, often due to spoilage, but also for another reason: People in India have a tendency to avoid eating jackfruit, thinking it's a food only for "poor" people. Business Insider notes:<sup>12</sup>

"As popular as jackfruit is in Bangladesh, it is avoided in India ... where it could bring copious amounts of food to millions of people and malnourished ... Reportedly, up to 75 percent of jackfruit grown in India goes to waste, partly because the fruit goes bad if it's not eaten or preserved within a few weeks."

#### How Jackfruit Could Positively Affect World Hunger

In a country where **hunger** is sometimes as rampant as anywhere in the world, this is disturbing, especially to Shree Padre, a newspaper editor in Karala. He and others have stepped up to call attention to the many attributes of jackfruit, organizing festivals and advocating for more awareness of what the fruit could do to allay hunger. According to Padre:<sup>13</sup>

"Countries like Vietnam, Philippines and Malaysia are minting money from jackfruit. Sri Lanka proudly calls it the 'tree of rice.' But ironically, in the motherland of jackfruit, we still haven't understood jackfruit's importance."

The University of Agricultural Sciences in Bangalore, India, held a symposium to beef up awareness of the problem, as well as to focus on how to market jackfruit as well as breadfruit. In comparison to rice and corn, which both have high calorie and high carb content, and like wheat, all of which require lots of irrigation, jackfruit, being perennial, doesn't require constant replanting.

While it does take five to seven years to begin seeing a steady crop of jackfruits, knowing it's coming is better by far than letting the same amount of time run without a plan for feeding people.

#### **Sources and References**

- <sup>1</sup> Wiley Online Library October 16, 2012
- <sup>2</sup> J. Chem Soc., Trans., 1895, 67, 937-944
- <sup>3, 10, 12, 13</sup> Business Insider September 12, 2015
- <sup>4, 11</sup> NPR The Salt May 1, 2014
- <sup>5</sup> Nutrition and You 2009-2017
- <sup>6</sup> Livestrong July 13, 2015
- <sup>7</sup> Bioresour Technol. 2004 August;94(1):49-52
- <sup>8</sup> Food Nutr Bull. 2010 March:31(1):118-29

• <sup>9</sup> PLoS ONE September 8, 2010; 5(9): e12244