



The hype over plant-based foods overlooks a key ingredient: Plants

Perspective by Eve Turow-Paul and Sophie Egan

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What comes to mind when you hear the term “plant-based”? If you’re like most people, you probably picture something that looks like a traditional hamburger but made with plant proteins. It’s far less likely that you think of, well, a plant.

The term “plant-based” has catapulted into the common vernacular. Used to describe both a diet and foods that mostly, if not entirely, come from plants, the plant-based retail sector is now valued at \$7.4 billion.

A simple Google Trends search shows a clear tipping point: In 2016, both Impossible Burger and Beyond Meat debuted their plant-based meat alternatives and, with a juggernaut of marketing dollars behind them, searches for the term “plant-based” began their rocket ship rise. As the plant-based market grew, the mock meats — made predominantly of soy and pea proteins — began appearing at backyard barbecues, on bar menus, at the drive-through, and in pop culture via musicians and sports stars. Similar plant-based “analogs” — products meant to mimic not only meat but eggs and dairy — gained prominence as well. Now the “plant-based” movement is in the mainstream.

But what’s been left out? Actual plants. Fruits and vegetables, for starters. Whole grains and whole beans, as well. Herbs, spices, plant oils.

There are 250,000 to 300,000 edible plant species on Earth, along with 2,000 edible fungi species. Yet the Food and Agriculture Organization of the United Nations estimates that humans regularly consume only 4 percent of this mind-boggling bounty. Just three plants — rice, corn, and wheat — account for nearly two-thirds of the calories and proteins we get from plants, according to FAO. How boring is that?

In recent years, plant-based eating has become more about Silicon Valley and stock prices than the Salinas Valley and salsify. With the lion's share of the venture capital investment, it's no surprise that the companies that make these products have been shaping the global conversation. "The culture of 'plant protein' has very much become about alternative meats," said Ujwal Arkalgud, co-founder of MotivBase, an AI-fueled trend identification tool. "Meanwhile the culture of 'plant foods' is a lot different, closer to being about plants, but there's hardly any discourse on the actual value and experience or joy of consuming plant foods." Without a shift in framing, the climate-smart food movement risks pigeonholing itself, and being forever tied to a handful of processed plant products instead of forging a wholesale rethinking of a flavorful, healthy, equitable and sustainable food culture.

Through our work at the research nonprofit Food for Climate League, we've learned that by changing the narrative of plant-based to include the plenitude of palatable plants and fungi, we can influence what products receive investment, what ingredients and recipes chefs and retailers choose to highlight, and ultimately what meals people have access to and enjoy on a regular basis.

A broader public embrace of "plant-based" eating could positively impact human and planetary health while opening up a world of culinary experiences, from barbecue jackfruit sliders to baobab smoothies to adobo enoki mushrooms. Crackers and chips wouldn't feature just the usual wheat and corn but fonio, amaranth, millet, flax, and even sea vegetables, adding nutrition and a new scale of flavor. Imagine localized bean chilis (teparty instead of the supermarket standard black turtle bean) at tailgates or limited-time offer runs on ramp pizza or pawpaw ice cream. Or perhaps student produce ambassadors on college campuses, whole grains evangelists on corporate wellness committees, and young farmers — of kelp and of cowpeas, peanuts and nopales, lentils and buckwheat — turned TikTok influencers around the globe.

An emphasis on whole plants would improve access to nutritious foods in a way that many of these meat alternatives simply do not. Because of the power of health halos — a phenomenon in which consumers attribute health benefits to foods bearing certain labels, from "gluten-free" to "low-fat" — many eaters perceive the term "plant-based" as an automatic thumbs-up. But the nutrition labels of many highly processed plant-based products require a Google search to decipher: methyl cellulose, modified starch, soy protein concentrate. Researchers don't know yet how many of these ingredients behave in the body over time. Meanwhile, eating a plant-centric diet of mostly whole and minimally processed foods is tied to a host of well-researched health benefits such as lower risk of chronic disease and obesity.

A food culture that elevates the abundance of edible plant varieties around the world could also bolster food sovereignty and food justice movements by bringing attention to varied food traditions, and amplify representation of the people who farm and prepare them. A greater variety of shelf-stable legumes and grains could become affordable ingredients, and it would open the door to respecting food traditions where meat and cheese play the role of flavoring agents, while plants take center stage. It would also give space to honoring the symbiotic — and often culturally traditional — relationship between responsibly raised animals, plants and soil health.

Cultivating a global food culture that demands greater variety of whole plants can be a climate solution, too, through agroecological farming methods such as crop rotations and intercropping (growing two or more crops in proximity). Agriculture, globally, is responsible for up to one-third of all greenhouse gas emissions. Meanwhile, Project Drawdown — an organization that lists dozens of solutions to reverse global warming — ranks plant-rich diets among the top three most effective. According to their metrics, popularizing diets that emphasize plant-based foods could make a far bigger impact on the climate than widespread adoption of electric cars, for example.

To get there, the public narrative of “plant-based” has to change. According to Project Drawdown Executive Director, Jonathan Foley, their organization “has shown that shifting to more plant-based diets, alongside reducing food waste, is a crucial part of addressing greenhouse gas emissions from the agriculture and food sector. But we need to have a broader conversation about the larger food system. And broader engagement, education, and communication are going to be key.”

People appear poised for a plant-forward future. The market size of legumes, mushrooms, fava beans and chickpeas is growing, in large part due to their availability, low cost, and increased adaptability in different cuisines. And while venture capitalists may still be eager to find the next Impossible Burger, interest in plant-based products appears to be broadening.

“I can tell you that in our first fund our focus was finding a product that mimicked meats, or other types of animal-based proteins, in the closest way possible,” Lisa Fera, the CEO of Stray Dog Capital — a firm that has made more than 45 investments in the plant-based arena — told us. That approach, she acknowledged, “came with some sacrifice,” on healthiness and sustainability. Now the fund is focused on investing in plant-based products that are “still delivering all the memorable elements of the foods that we love, but don’t have the downside of the really processed ingredients or high sodium,” she said. An example she pointed to is MyForest Foods’ MyBacon product, made with mushroom mycelium and just five other ingredients: beet juice, coconut oil, salt, sugar and spices. “We have so many different possibilities with plants that have only begun to be discovered,” Fera said.

You may have seen similar products — a new genre of “third wave” clean-label plant-based foods, with ingredients you might actually have in your own pantry, and with more diverse flavors and ingredients. If Boca Burger embodies the first wave of plant-based products, and Impossible the second, you can count companies like [Crafty Counter](#), [The Live Green Co](#) and [Akua](#) kelp burgers among the new ranks.

“The U.S. food industry has, largely, always created foods to maximize deliciousness over health and nutrition,” said Akua Co-Founder and CEO Courtney Boyd Myers, in an email. “So on the quest to mimic meat, it’s no surprise that the biggest food companies in the plant-based industry did the same.” She added: “More and more people are seeking out healthier alternatives, and more food companies are creating nutritionally superior products that rise to this occasion.”

This could be an inflection point, culturally, to finally make the leap in sustainable eating beyond mass-market meat imitators to include more biodiverse and minimally processed foods. Companies like Impossible and Beyond have met people where they are to make their plant-based products approachable, and they have demonstrated that plants can be delicious and filling. But without expanding the plant-based narrative and encouraging investment in farming and food production methods that meet global climate needs, this moment could pass us by — and our food system could move on, largely unchanged.

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