

# Researchers develop nutrient-rich purple potato

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Colorado State University researchers have developed new nutrient-rich purple potatoes. Credit: Colorado State University

Purple potatoes might not be the first thing that comes to mind when trying to increase vitamin, mineral and antioxidant intake. However, a group of researchers from Colorado State University have recently developed potato varieties that satisfy these nutritional needs and could act as a preventive measure to several diseases.

The research team works with the CSU Potato Program and is composed

of David G. Holm, a professor and potato breeder; Sastry S. Jayanty, a post-harvest physiologist; and Diganta Kalita, a postdoctoral researcher at CSU's San Luis Valley Research Center. According to the research team, "There are different colored potatoes such as red, purple, yellow and white with distinctive skin and flesh color. Among them, purple and red potatoes are high in antioxidants."

Additionally, these colorful potatoes could be a good source of nutrition such as vitamin C, resistant starch, folic acid, minerals, potassium, iron, zinc and phenolic compounds.

Antioxidants found in the newly developed potatoes play a critical role in the prevention of several pathological conditions, including cancer, heart disease and atherosclerosis. At a microscopic level, the antioxidants scavenge the action of some free radicals that cause damage to biological molecules, such as proteins and DNA. Jayanty and Kalita describe the newly developed potatoes as comparable to superfoods like blueberries and pomegranates.



Credit: Colorado State University

Even purple and red French fries could be a healthy replacement to the traditional French fries from white and yellow potatoes. Some of the newly developed potatoes have lower levels of acrylamide, a chemical formed during the frying or baking of potato tubers. According to the International Agency for Research on Cancer, acrylamide is a probable carcinogen.

Collaborative work with Jonathan M. Petrash, a professor in the Department of Ophthalmology at the University of Colorado's Anschutz Medical Campus, further reveals that phytochemicals present in purple and red potatoes have significant properties to reduce cataract formation in diabetic patients.

Findings from the research could greatly benefit the potato industry, which has suffered a decline in consumer demand due to health concerns. The industry impact could be widespread, since [potatoes](#) are the number one vegetable crop in the United States and are the fourth-most-important crop worldwide behind wheat, rice and corn.

Provided by Colorado State University

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