

Sweet Potatoes

1. What makes the flesh of a sweet potato so orange?

The bright orange color of sweet potatoes tips us off to their carotenoids. These phytonutrients are antioxidants that may help prevent some types of cancer and diseases of aging by disabling the free radicals that damage the body's cells and tissues.

2. What health functions does Vitamin A provide for our bodies? Vitamin C? Vitamin B6? Iron?

Vitamin A helps our body to grow normally, makes our eyes and immune system healthy, and supports resistance to infection. Vitamin A helps with normal vision in low light and protects us from infections by keeping skin and tissues in the mouth, stomach, intestines and respiratory tract healthy.

Vitamin C is important to our body in healing wounds. Vitamin C is needed for a strong immune system, healthy gums and connective tissues.

Vitamin B₆ is needed for more than 100 enzymes involved in protein metabolism. It is also essential for red blood cell metabolism. The nervous and immune systems need vitamin B₆ to function efficiently, and it is also needed for the conversion of tryptophan (an amino acid) to niacin (a vitamin).

Iron is an integral part of many proteins and enzymes that maintain good health. In humans, iron is an essential component of proteins involved in oxygen transport. It is also essential for the regulation of cell growth and differentiation. A deficiency of iron limits oxygen delivery to cells, resulting in fatigue, poor work performance, and decreased immunity. On the other hand, excess amounts of iron can result in toxicity and even death.

3. What is the difference between a tuber and a root?

A root is an actual root of the plant, whereas a tuber is a part of the plant's stem that grows underground.

- 4. How are sweet potatoes similar to and different from yams? Include nutrition content, texture, skin and flesh colors, and geographic regions where each is found.**

Sweet potatoes are roots, feel smooth and range in color from yellow to dark purple to orange, which indicates that they are a good source of beta-carotene). They are moist in consistency and sweet in flavor. Yams are tubers, feel rough, and range in color from white to dark brown, which indicates their low level of beta-carotene and other nutrients. They can taste dry and starchy. Availability – sweet potatoes (roots) are grown in the United States whereas yams (tubers) are imported from the Caribbean.

- 5. Ask students to research some other products that George Washington Carver made using sweet potatoes. How have those products affected or revolutionized everyday life?**

Foods invented from sweet potatoes include flour, sugar and instant coffee. Each of these products was used during the Civil War when other more traditional products (wheat flour, granulated sugar, and coffee) ran out, were scarce, or were too expensive.

- 6. Which former U.S. President was a sweet potato farmer before taking office?**

George Washington.

Sources:

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