Everyday Mysteries

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What is the difference between sweet potatoes and yams?

Answer

Although yams and sweet potatoes are both angiosperms (flowering plants), they are not related botanically. Yams are a monocot (a plant having one embryonic seed leaf) and from the Dioscoreaceae or Yam family. Sweet Potatoes, often called 'yams', are a dicot (a plant having two embryonic seed leaves) and are from the Convolvulacea or morning glory family.



Sweet potato cultivar Ruddy (left) is sweet and moist and resists insects, unlike the leading U.S. cultivar Beauregard. Agricultural Research Service, U.S. Department of Agriculture

Yams

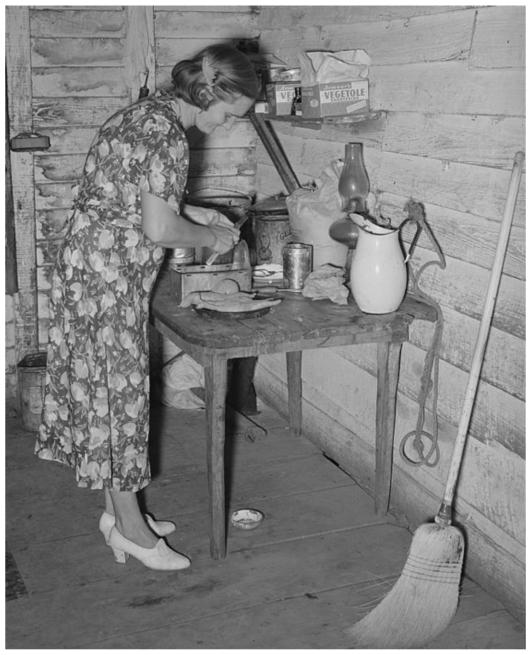
Yams are closely related to lilies and grasses. Native to Africa and Asia, yams vary in size from that of a small potato to a record 130 pounds (as of 1999). There are over 600 varieties of yams and 95% of these crops are grown in Africa. Compared to sweet potatoes, yams are starchier and drier.



Cocoyam (left), yam (middle) and plantain at Cameroon market. Asiedu, photographer, 2007. International Institute of Tropical Agriculture (IITA) Image Gallery on Flickr.

Sweet Potatoes

The many varieties of sweet potatoes (Ipomoea batatas) are members of the morning glory family, Convolvulacea. The skin color can range from white to yellow, red, purple or brown. The flesh also ranges in color from white to yellow, orange, or orange-red. Sweet potato varieties are classified as either 'firm' or 'soft'. When cooked, those in the 'firm' category remain firm, while 'soft' varieties become soft and moist. It is the 'soft' varieties that are often labeled as yams in the United States.



Mrs. Adams, wife of farmer near Morganza, Louisiana, preparing sweet potatoes for dinner. Russell Lee, photographer, 1938. Prints & Photographs Division, Library of Congress.

Why the confusion?

In the United States, firm varieties of sweet potatoes were produced before soft varieties. When soft varieties were first grown commercially, there was a need to differentiate between the two. African slaves had already been calling the 'soft' sweet potatoes 'yams' because they resembled the yams in Africa. Thus, 'soft' sweet potatoes were referred to as 'yams' to distinguish them from the 'firm' varieties.



Large sweet potatoes are ploughed up for migrant workers to pick and sort according to size at Kirby Farms in Mechanicsville, VA. U.S. Department of Agriculture, 2013. USDA Flickr Photostream.

Today the U.S. Department of Agriculture requires labels with the term 'yam' to be accompanied by the term 'sweet potato.' Unless you specifically search for yams, which are usually found in an international market, you are probably eating sweet potatoes!



Field workers evaluating high yielding yam varieties in a research farm. C International Institute of Tropical Agriculture (IITA) Image Gallery.

Related Websites

- Yam C (Traditional Pacific Island, University of Hawai'i at Mαnoa Library)
- Sweet Potatoes 🗹 (Louisiana State University Agricultural Center) Includes articles on the history, best practices, and economics of Louisiana sweet potatoes.

- How the Farmer Can Save His Sweet Potatoes, by George Washington Carver (1937) C (Biodiversity Heritage Library) USDA Bulletin (Tuskegee Institute. Experiment Station); no. 38.
- What is the Difference Between a Sweetpotato and a Yam? C (North Carolina State Extension) Horticulture information leaflet by sweetpotato specialist Jonathan Schultheis.
- Yams: A lifeline for millions 🗹 By Grace Brewer, Royal Botanic Gardens Kew. Nov. 11. 2019.

Further Reading

- Coursey, D. G. *Yams: an account of the nature, origins, cultivation and utilisation of the useful members of the Dioscoreaceae*. London, Longmans, c1967. 230 p.
- Davidson, Alan. "Sweet potato." *The Oxford companion to food.* New York, Oxford University Press, c1999. p. 774-775.
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- Edmond, J. B., and G. R. Ammerman. *Sweet potatoes: production, processing, marketing*. Westport, CT, AVI Publishing Company, c1971. 334 p.
- Kiple, Kenneth F., and Kriemhild Coneè Ornelas, eds. "Sweet potatoes and yams." *The Cambridge world history of food*. New York, Cambridge University Press, c2000. p. 207-218.
- Price, Robert Henderson. *Sweet potato culture for profit*. C A full account of the origin, history and botanical characteristics of sweet potato. Dallas, Texas Farm and Ranch Publishing Co., c1896. 107 p.
- *Sweet potatoes and yams*. New York, Medina, Ohio, The Barrett Company, Agricultural Dept., 1918. 15 p. http://www.archive.org/details/sweetpotatoesyam00barr
- Voorhees, Don. "What's the difference between a sweet potato and a yam?" *Why does popcorn pop?* Seacaucus, NJ, Carol Pub. Group, c1995. p. 42-43.

Search Terms

- Sweet potatoes.
- Yams.

Have a question? Ask a science librarian