

Yard and Garden – December 01, 2012- Ted Griess / Extension Horticulture Assistant

In preparation and planning for our Thanksgiving dinner, Rita and I went grocery shopping. While cruising the produce aisle, I noticed a sign advertising sweet potatoes for sale. Seeing that sign caused me momentarily to question, “Were they really sweet potatoes or were they yams?” For many individuals, the two are synonymous. To the botanist, however, there is a big difference. Although at first glance they do appear similar, long ago I discovered, botanically, they are quite different.

Botanists do agree there is one scientific similarity between yams and sweet potatoes. They both belong to a large group of plants called angiosperms. Of course, so do hundreds of thousands of other plants. Angiosperm is a scientific word which simply translates *flowering plant*. After that element of commonality, numerous genetic differences occur.

Yams are monocot plants— those that contain only one embryonic seed leaf. Other closely related plants to yams include the grasses and lilies. Yam is actually the common name for a number of species belonging to the genus *Dioscorea*. Many yam cultivars exist. Growing as an herbaceous, perennial vine, yams are generally grown for the consumption of their starchy tubers (fleshy parts of an underground stem). Ninety-five percent of the world’s yams are grown in Africa. Yams are a staple crop for the people of Africa, Asia, and Latin America. The yam is a versatile vegetable. It can be roasted, baked, barbecued, grilled, fried and smoked. Yams are claimed to be starchier and drier than sweet potatoes.



Sweet potatoes are dicots— those flowering plants that produce seeds containing two embryonic seedling leaves. Most sweet potatoes consumed in the United States are grown in the South. Interestingly, although sweet potatoes are not related to yams, they also are not botanically related to regular potatoes. The genus/species name for sweet potato is *Ipomoea batatas*. The genus/species of a regular potato is *Solanum tuberosum*. If you have ever planted regular potatoes, you are more than likely familiar with cutting a raw potato into chunks

making sure each piece contains an eye. After planting the potato chunk, a new potato plant emerges from the eye. Sweet potatoes have no eyes. If you cut a sweet potato into chunks and plant the chunks, all you will accomplish is rotting chunks of sweet potato. To vegetatively propagate the sweet potato, slips or sprouts need to be developed by placing the sweet potato in water and then planting the sprouts.

For all the many botanical differences between yams and sweet potatoes, they do hold a number of strong similarities. Perhaps that might explain why the confusion exists between the two.

Both yams and sweet potatoes develop within the soil and both are grown for their sweet-tasting, fleshy tubers. Each is somewhat shaped like a regular potato; however, a yam can grow much larger. Instead of rounded ends, the ends of yams and sweet potatoes are often tapered. The skin of both is generally a coppery tan in color. In North America, yams and sweet potatoes are often regarded as a festive food for the holidays. The sugar content of both yams and sweet potatoes increases substantially during the stages of cooking. Each provides more calories, minerals and vitamins than a regular potato, and the carotene derived from the orange yellow flesh readily converts into more vitamin A than any other vegetable provides.

We purchased some of those advertised sweet potatoes. As part of our Thanksgiving dinner, Rita baked the most wonderful sweet potato dish with spices, pecans, apples, brown sugar and marshmallows. It was absolutely scrumptious. While devouring that delectable treat, again, I momentarily questioned, "Were they really sweet potatoes or were they yams?" But then I thought —who cares, and I just kept eating.