

Missouri Environment & Garden

November 2012

Volume 18, Number 11

Cranberry: A Holiday Staple

When the pilgrims landed at Plymouth Rock, they found a thornless vine covered with small, red fruit growing in boggy regions of the area. Native Americans valued this fruit and named it sassamanash or ibimi which, literally interpreted, means “bitter berry”. In addition to pounding it into meat to form a paste called pemmican, they used it as a fabric dye as well as for medicinal purposes. In short, it played an important role in their lives.

History does not record whether or not Native Americans brought sassamanash to the first Thanksgiving feast but, today, no holiday meal would be complete without the small, tart fruit today known as cranberry. For the majority of the year, cranberry maintains a fairly low profile as a food source. Around the holiday, however, its popularity (and sales) soars. Even cranberry juice is consumed in greater quantities around the holiday season. Few other edible crops are produced by a plant as unique as cranberry. Although cranberries are not grown in Missouri, November is a fitting month to take a closer look at this unique fruit.

Cranberry is a member of the Ericaceae family and belongs to the genus *Vaccinium*. It along with blueberry and (American) grape are North America’s only three native fruits that are grown commercially. There are several species of cranberry including *V. macrocarpon* (Large or American Cranberry) which is the most commonly grown species in commercial cranberry production. All are native to the acid bogs of the northern and northeastern parts of the United States as well as to some parts of Canada.

Cranberry plants are evergreen and trail along the ground. As they spread across the soil surface short, vertical shoots are produced that flower and (later) produce fruit. The short, vertical shoots produce fruit over many years and always remain upright while the remainder of the plant lies on the ground. Cranberry flowers are deep pink with

reflexed petals that leave the pistil and stamens exposed and pointing forward. Botanically, the fruit is classified as a berry and turns from white to red as it matures.

For several centuries after the arrival of the colonists to North America, cranberries were gathered from the wild and were a significant source of revenue for many farmers. It was not until 1816 that the first commercial cranberry bed was constructed and planted in Massachusetts by Henry Hall, a veteran of the Revolutionary War. Evidently, his efforts were successful since, according to a local newspaper story, his bed yielded 70 bushels of cranberries per acre. This sort of success caused others in Massachusetts and the northeast to establish commercial beds. Some were successful; others were not. Those that failed did so because of a lack of understanding of the unique needs of the plant.

Cranberries have very precise cultural requirements and are not suitable as a crop for the home garden. Additionally, they are not tolerant of hot temperatures. For good productivity, the plant must be grown in acid bogs, either natural or man-made (beds). Since most bogs in the northeast are peat-based, cranberries in nature thrive at pH levels between 4.5 and 5.0. Recently, it has been found that cranberries can be grown in beds constructed in sandy soils, when peat bogs are not available. However, the pH

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requirement of the plant remains the same and must be artificially maintained between 4.5 and 5.0.

Most people have the misconception that cranberry beds remain flooded throughout the year. Such is not the case. Although regular irrigation is practiced during the growing season to maintain proper soil moisture, beds are flooded only twice each year. In the autumn beds are flooded to facilitate harvest; during winter the procedure is done to protect the plants against cold temperature injury.

Cranberries are considered ready for harvest when the fruit develops its distinctive deep red color. In most production areas this occurs from mid-September through the early part of November. At harvest time beds are flooded with water to cover the vines six to eight inches in depth. A cranberry harvester then proceeds through the bed and severs the fruit from the vines by churning the water. The fruit (which are buoyant because of air pockets they contain) float to the top of the water where they are “corralled” into a corner of the bed. From there, they are picked up by a conveyor belt or pump and transported to the processing plant.

Alternatively, there is a dry harvest method used for most cranberries that are sold as fresh, whole fruit. This method employs the use of a small machine with teeth or tines that combs the berries off the vines and deposits them in a container.

Sorting or grading cranberries in earlier times involved rolling the berries down a series of steps. Top-grade, firm berries bounced to the bottom whereas damaged or soft berries remained on the steps. Centuries later, the ability of a cranberry to bounce still is used (by machines more sophisticated than stairways) to separate top quality berries destined to be sold fresh from those that are sold for processing.

In addition to serving as a traditional side-dish at meals, cranberry recently has been the focus of attention by scientists interested in phytonutrients. The latter are plant-derived compounds that (unlike vitamins) are not essential for life but may help to maintain all-around wellness. For

example, the pigment that causes cranberries to be red contains an antioxidant that has been linked to combating certain types of cancer, promoting heart health and maintaining all-around wellness. Additionally, cranberry juice is now widely used to prevent urinary tract infections because of a compound it contains that prevents bacteria from attaching themselves to the bladder wall.

Cranberry facts/trivia:

- The modern name “cranberry” most likely is a corruption of “crane berry”. The latter name was used by early European settlers and made reference to the fact the expanding flower of this plant resembles the neck, head and bill of a crane.
- New England mariners ate cranberries (a good source of vitamin C) on their voyages to prevent scurvy.
- While one cup of raw cranberries contains only about 46 calories, one cup of cranberry sauce contains about 400 calories because of the sugar required to make the cranberries palatable.
- Americans consume about 400 million pounds of cranberries each year, 20 percent of which are “gobbled up” at Thanksgiving.
- If all the cranberries produced in North America were to be placed end-to-end, the line would reach from Boston to Los Angeles more than 565 times.

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December Gardening Calendar

Houseplants

- Weeks 1-4: Water houseplants with tepid water. Cold tap water may shock plants.
- Weeks 1-4: Be sure newly purchased indoor plants are well protected for the trip home. Exposure to icy temperatures for even a few moments may cause injury.
- Weeks 1-4: Overwintering geraniums like bright light and cool temperatures. Keep soils on the dry side.
- Week 1-4: On cold nights, move houseplants back from icy windows to prevent chilling injury.
- Week 1: Plant tulips now.
- Weeks 2-4: Holiday poinsettia plants do best with sun for at least half the day and night temperatures in the 50's or 60's. Keep plants away from drafts, registers and radiators and let the soil should dry only slightly between thorough waterings. Be sure to punch holes in decorative foil wraps to prevent soggy soil conditions.
- Weeks 1-4: Hairspray works well to keep seed heads and dried flowers intact on wreaths and arrangements.
- Weeks 1-4: If you plan to have a live Christmas tree, dig the planting hole before the ground freezes. Mulch and cover the backfill soil and the planting hole to keep them dry and unfrozen. When you get the tree, store it outdoors in a cool, shady, windless area until the last minute and mulch the roots to prevent cold injury. Don't allow the tree's roots to become dry and spray the needles with an anti-transpirant to reduce moisture loss. Set the tree up in your coolest room. Don't keep the tree indoors for more than one week and plant outdoors promptly.
- Weeks 1-4: Be sure the root zones of azaleas and rhododendrons are thoroughly mulched. Any organic material will do, but mulches made from oak leaves, shredded oak bark, or pine needles are preferred.
- Weeks 1-3: Christmas trees hold needles longer if you make a clean, fresh cut at the base and always keep the trunk standing in water.
- Weeks 1-3: Only female holly trees bear the colorful berries. There must be a male tree growing nearby for pollination, if fruits are desired.
- Weeks 1-3: Hollies may be trimmed now and the prunings used in holiday decorations.

Miscellaneous

- Weeks 1: Apply mulches to bulbs, perennials and other small plants once the ground freezes. • Weeks 1-3: Christmas trees hold needles longer if you make a clean, fresh cut at the base and always keep the trunk standing in water.
- Weeks 1: All power equipment should be winterized before storage. Change the oil and lubricate moving parts. Either drain fuel systems or mix a gas stabilizing additive into the tank.
- Weeks 1: Clean and oil all garden hand tools before storing for winter.
- Weeks 1: If you feed rabbits corn or alfalfa, they may leave fruit tree bark unharmed.

Gardening Calendar supplied by the staff of the William T. Kemper Center for Home Gardening located at the Missouri Botanical Garden in St. Louis, Missouri. (www.GardeningHelp.org)