

2006

Stark Northern Prize—A Hardy Persian Walnut

Paul A. Domoto

Iowa State University, domoto@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/farms_reports



Part of the [Agricultural Science Commons](#), [Agriculture Commons](#), and the [Horticulture Commons](#)

Recommended Citation

Domoto, Paul A., "Stark Northern Prize—A Hardy Persian Walnut" (2006). *Iowa State Research Farm Progress Reports*. 1162.
http://lib.dr.iastate.edu/farms_reports/1162

This report is brought to you for free and open access by Iowa State University Digital Repository. It has been accepted for inclusion in Iowa State Research Farm Progress Reports by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

Stark Northern Prize—A Hardy Persian Walnut

Abstract

Stark Brothers Nursery, Louisiana, Missouri, has released for sale a new walnut cultivar named Stark Northern Prize™. This tree is a cold-resistant Persian (Carpathian) walnut, *Juglans regia*. It was selected from a population of open-pollinated seedlings planted at the Iowa State University Horticulture Station, Ames, Iowa, in 1971 and was evaluated as ISU71-E18. In 2002, the U.S. plant patent was received for the walnut tree named Domoto. In 2005, pairs of ISU Domoto, aka Stark Northern Prize™, walnut trees were planted at the ISU research farms near Sutherland, Kanawha, Nashua, Lewis, Chariton, and Crawfordsville and at the Horticulture Station north of Ames and on the ISU central campus.

Keywords

Horticulture

Disciplines

Agricultural Science | Agriculture | Horticulture

Stark Northern Prize—A Hardy Persian Walnut

Paul Domoto, professor
Department of Horticulture

Stark Brothers Nursery, Louisiana, Missouri, has released for sale a new walnut cultivar named Stark Northern Prize™. This tree is a cold-resistant Persian (Carpathian) walnut, *Juglans regia*. It was selected from a population of open-pollinated seedlings planted at the Iowa State University Horticulture Station, Ames, Iowa, in 1971 and was evaluated as ISU71-E18. In 2002, the U.S. plant patent was received for the walnut tree named Domoto. In 2005, pairs of ISU Domoto, aka Stark Northern Prize™, walnut trees were planted at the ISU research farms near Sutherland, Kanawha, Nashua, Lewis, Chariton, and Crawfordsville and at the Horticulture Station north of Ames and on the ISU central campus.

The identity of the female parent was not recorded, but past literature and growth characteristics suggested that one of the parents was probably Hansen and the other was possibly Colby. The tree has consistently exhibited minimal shoot dieback when exposed to frost in late fall or early winter, mid-winter, and late winter. When exposed to -32°F, these trees suffered only minor to moderate shoot dieback while other cultivars and selections were severely injured. Catkin (male flower) survival has been recorded following exposure to -26°F.

These trees are small, slow growing, and moderately vigorous with a round shape and a somewhat upright branching habit. They leaf out early and defoliate relatively late. Catkins are medium size and produced in abundance. Pollen is released in midseason, about 5 days after first pistillate (female) flowers are receptive (able to be fertilized). Pistillate flowers occur mostly in pairs on terminal spurs with some produced laterally on shoots. Pistillate flowers are receptive in the early

midseason with about a 10-day overlap of staminate (male) and pistillate blooms. Because of the delay in pollen release, cross-pollination with another cultivar is recommended for enhanced fruit set.

The fruit ripen in late September to early October. The nut is roundish-oblong, compressed, slightly to moderately beaked, rounded at base, and medium size (46 nuts/lb). The shell is thin, moderately hard, well sealed, and relatively smooth. The cavity is well filled. The kernel is tight and difficult to remove in halves. It is moderately small to medium sized, plump, richly flavored, oily, somewhat astringent, and of general good quality. Productivity is low without cross-pollination and medium with cross-pollination.

Stark Northern Prize is suitable as a nut producing ornamental in northern climates where commercial cultivars cannot be grown. It is adapted to zones 5a and 4b of the USDA plant hardiness zone map. Grafted trees are available from Stark Brothers Nursery, P.O. Box 10, Louisiana, MO 63353-0010; telephone orders, 1-800-325-4180, web site: <http://www.starkbros.com/>.

This text was taken primarily from a reprint of the *Iowa Horticulturist*, Summer 2000, Vol. 16, No.4, p. 16.