

OSU Extension - Auglaize County Weekly Horticulture Newsletter – 11-15-19

History and facts about Poinsettias



In the 14th and 16th centuries the Aztecs used the sap of poinsettias (Cuetlaxochitl in Aztec) to control fevers and used the bracts (modified leaves) to make a reddish dye. The last Aztec king took cuetlaxochitl into what is now Mexico City because they could not grow in the high altitude. A botanist, Juan Balme mentioned the poinsettia plant in his writings in the 17th century. The German botanist, Wilenow, assigned the scientific name *Euphorbia pulcherrima* to poinsettias because he was dazzled by its color. *Pulcherrima* means very beautiful.

Joel Roberts Poinsett, an avid botanist, was appointed as the first United States Ambassador to Mexico in 1825 by President John Quincy Adams. Poinsett wandered the Mexican countryside looking for new plant species. In 1828 he came across a beautiful shrub with large red flowers. Poinsett took cuttings of the plant and sent them back to his South Carolina greenhouse. He began to propagate the plants and sent them to friends and botanical gardens. They were first sold under the name *Euphorbia pulcherrima*. However around 1836, William Prescott, a historian and horticulturalist, named the plant *Poinsettia* in honor of Poinsett's discovery. Other names for poinsettias include lobster flower and flame-leaf flower.

John Bartram, a nurseryman from Pennsylvania, is believed to be the first person to sell poinsettias. In the early 1900's the Ecke family of southern California grew poinsettias outdoors for use as a cut flower and landscape plant. The Ecke family began propagating poinsettias in the greenhouse and today grows over 70% of all poinsettias for sale in the United States and about 50% of worldwide sales.

Poinsettias are actually perennial shrubs in nature, growing 10 to 15 feet in height. There are greater than 100 varieties of poinsettias today. Poinsettia bracts (the colored leaves) are traditionally red although today you can find them in white, pink, burgundy, orange, purple, marbled, and speckled.

Poinsettias are not poisonous by ingestion. An Ohio State University study showed a 50 pound child would have to eat greater than 500 leaves to reach a harmful effect. In addition, poinsettia leaves have a very unpleasant taste, likely discouraging children from eating many leaves. If children eat the leaves they may get an upset stomach and vomit. If pets eat the leaves they are more likely to vomit and have diarrhea than children, but will not be poisoned. Since the milky sap in the plant is a latex, it is possible for humans with allergies to latex to get a skin reaction from touching the leaves. Getting the milky latex sap in your eye can cause temporary blindness so be careful handling the plant.

Historically, poinsettias were used by Aztecs to make a purplish dye from the colorful “flowers” for use in textiles and cosmetics. The sap was also used in a preparation for treating fevers.

December 12th is National Poinsettia Day commemorating the date of Joel Poinsett’s death in 1851. In addition to honoring Poinsett, people are encouraged to enjoy the beauty of the holiday plant. The legend of the poinsettia plant is that a small Mexican girl wanted to present a gift to the Christ Child at Christmas Eve services, but she had nothing. Her cousin said that even the most humble gift, if given in love, will be acceptable to His eyes. While on their way to Church she gathered a handful of common weeds. When she presented the bouquet at the manger the bouquet suddenly turned into blooms of brilliant red. All present thought this to be a miracle and from that day forward the bright red flowers were known as the Flowers of the Holy Night for they bloomed each year during the Christmas season.

Local Observations



Poinsettias

Good Afternoon! I pray you are well! What another crazy record-setting weather week!

It rained and snowed only one day this past week. Total liquid precipitation (rain and snow melt) on Monday, November 11th, ranged from 0.16" at Santa Fe – New Knoxville and Kettlersville Roads to 0.6" at about 2 miles north of St. Marys. Rainfall for the week was what we had for Monday. The average for the week was 0.32", a far cry from last week. Snowfall for the week ranged from 2" at about 5 miles east of New Hampshire and about 6 miles northwest of St. Marys to 4.5" at Kettlersville and Santa Fe – New Knoxville Roads. Snowfall for the week averaged 3". Temperatures were way below normal for the week and set record lows on Wednesday.

Still don't know about my bees with the cold temperatures, but the garden I certainly done. Any fall vegetables are dead now.

VegNet

No news this week

BYGL

No news this week

Other Articles

Domingo Pine Is a Rugged Blue Evergreen

November 13, 2019 | [Meghan Shinn](#)

Source: <https://www.hortmag.com/plants/plants-we-love/domingo-pine-is-a-rugged-blue-evergreen>



Virtues: Domingo pine is densely pyramidal in shape and richly blue-green in color. A fast-grower that rarely needs pruning, it can handle urban pollution and placement. It's an exceptional conifer prized for its toughness, color, form and texture. It combines the best traits of its parents, two pines native to North America.

Common name: Domingo pine

Botanical name: *Pinus strobus xayacahuite* 'Domingo'

Exposure: Full sun

Season: Year-round for foliage

Foliage: Attractive blue-green foliage stands out in the landscape. The bluish cast of the needles complements the shaggy gray bark.

Habit: This is a fast-growing conifer that can reach 50 to 70 feet tall and 30 to 50 feet wide, with a strongly pyramidal shape.

Origins: Domingo pine is a hybrid of eastern white pine (*Pinus strobus*) and Mexican white pine (*P. ayacahuite*).

How to grow Domingo pine: Plant this evergreen tree in full sun and any well-drained soil. It will grow under dry to medium moisture. This is an adaptable conifer that is not picky about soil type and will withstand urban conditions and pollutants as well as winter winds. USDA Zones 4–7.

Chinese researchers develop purple tomato rich in anthocyanins

Source: <https://www.hortidaily.com/article/9162890/chinese-researchers-develop-purple-tomato-rich-in-anthocyanins/>

A group of researchers from the Institute of Genetics and Developmental Biology of the Chinese Academy of Sciences has developed a genetically-modified purple tomato that is rich in anthocyanins, a group of pigments that increase antioxidant levels and give purple, red or blue colors to many fruits and

vegetables. Some studies suggest that their consumption may reduce the risk of cardiovascular diseases and cancer.

Although most tomato varieties do not produce anthocyanins in the fruit, the Indigo Rose purple tomato variety has an accumulation of pigment on its skin which is light dependent. To achieve this, the researchers identified the genes related to the process of accumulation of anthocyanins in tomatoes, both in the skin and in the pulp. With the revelation of the anthocyanin synthesis mechanism, new ideas and technical approaches for crop improvement were also contributed, according to Li Chuanyou, research leader.

The study has been published in the journal *Molecular Plant*.

Accelerating breeding for heat tolerance in tomato

Source: <https://www.hortidaily.com/article/9161263/accelerating-breeding-for-heat-tolerance-in-tomato/>

Heat stress is a major limiting factor for crop productivity. Tomato is highly sensitive to heat stress, which can result in a total yield loss. To adapt to current and future heat stress, there is a dire need to develop heat tolerant cultivars. Researchers have reviewed recent attempts to improve screening for heat tolerance and to exploit genetic and genomic resources in tomatoes.

The researchers provide key factors related to phenotyping environments and traits (morphological, physiological, and metabolic) to be considered to identify and breed thermo-tolerant genotypes. There is significant variability in tomato germplasm that can be harnessed to breed for thermo-tolerance.

Based on their review, they propose that the use of advanced backcross populations and chromosome segments substitution lines is the best means to exploit variability for heat tolerance in non-cultivated tomato species.

They applied a meta quantitative trait loci (MQTL) analysis on data from four mapping experiments to co-localize QTL associated with heat tolerance traits (e.g., pollen viability, number of pollen, number of flowers, style protrusion, style length). The analysis revealed 13 MQTL of which 11 were composed of a cluster of QTL. Overall, there was a reduction of about 1.5-fold in the confidence interval (CI) of the MQTL (31.82 cM) compared to the average CI of individual QTL (47.4 cM).

This confidence interval is still large and additional mapping resolution approaches such as association mapping and multi-parent linkage mapping are needed. Further investigations are required to decipher the genetic architecture of heat tolerance surrogate traits in tomatoes. Genomic selection and new breeding techniques including genome editing and speed breeding hold promise to fast-track development of improved heat tolerance and other farmer- and consumer-preferred traits in tomatoes.

[Read the full article here](#)

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