

Did You Know?



The holiday poinsettia plants we purchase today are very different from the wild plants that originated in Mexico. Research performed over the past 70 years at the **ARS Beltsville Agricultural Research Center (BARC)** in Beltsville, MD, has significantly influenced this \$200+ million wholesale industry. Poinsettias are the number one potted plant in market value.

1920s – ARS scientists discovered that poinsettias require longer nights to induce flowering. When a poinsettia flowers, the upper leaves turn bright red and the center of the plant forms small yellow flowers.

1960s – Studies began on poinsettia lighting requirements and using growth regulators for improving commercial production. This research resulted in a production protocol that not only guaranteed when the poinsettia would “flower,” but resulted in development of a compact plant.

1970s – ARS researchers developed poinsettia breeding lines with significantly improved keeping quality. Before this research, poinsettia leaves would fall off the plant shortly after they were developed. This research resulted in the development of new poinsettia cultivars (i.e. ‘Ruff and Ready’) in which the leaves remained on the plant for the entire holiday season. ‘Ruff and Ready’ is still used as a parent for new poinsettia cultivars on the market today.

1990s – ARS scientists discovered that free-branching, dwarfed poinsettias, which produce the brilliant-red leaves favored by consumers, are due to infestation by a phytoplasma. Phytoplasmas are minute organisms, which usually cause diseases in plants. In this case, they induce the growth form, which is highly prized in poinsettias. This finding has also led the way to produce virus-free plants.

The new poinsettia colors, like pinks and yellows, and spotted types, are another outgrowth of the work done by ARS scientists on chimeras. Chimeras are plants with tissues that are genetically different than their parents. The basic science done by ARS scientists has enabled commercial breeders to produce new poinsettia color variations.

Adapted from information written by Rob Griesbach, Deputy Assistant Administrator, ARS Office of Technology Transfer.

Happy Holidays!

Please submit story ideas and national award items to Tara T. Weaver-Missick, tara.weavermissick@ars.usda.gov or call 301-504-1663.