

Breeding of Brugmansia (Angel's Trumpet)



This project is a cooperative effort of Dr. Dariusz Malinowski (Texas AgriLife Research and Extension Center, Vernon) and Steve Brown (Texas Foundation Seed).

Rationale

Brugmansia is a genus of six species of flowering plants in the family Solanaceae, native to subtropical regions of South America, along the Andes from Colombia to northern Chile, and also in southeastern Brazil. They are known as Angel's Trumpets. All plants in the genus are perennial and woody, and have pendulous flowers. Brugmansia plants are large shrubs or small trees, reaching heights of 3–11 m. The leaves are alternate, generally large, 10–30 cm long and 4–18 cm broad, with an entire or coarsely toothed margin, and are covered with fine hairs. The name Angel's Trumpet refers to the large, pendulous trumpet-shaped flowers, 14–50 cm long and 10–35 cm across at the wide end. They are white, yellow, pink, orange or red, and often have a delicate, attractive scent, most pronounced in early evening. All parts of the plant are poisonous. Almost all modern cultivars are multiple hybrids among the botanical species.

Objectives

The objective of this research program, initiated at Texas AgriLife Research and Extension Center at Vernon in 2007, is to develop new cultivars of Angel Trumpets with unique flower color and shape. Dr. Malinowski, in collaboration with Dr. W.E. Pinchak (Texas AgriLife Research – Vernon) and R.S. Brown (Texas Foundation Seed Service – Vernon) have created and evaluated over 1,500 hybrids during 2009–2012. Another objective of this research program is to develop Brugmansia cultivars capable of overwintering outdoors in USDA Zone 7. Several breeding lines with this ability have been identified and evaluated at Vernon.

Impact

To date, we have disclosed 25 breeding lines with exceptional flower color, shape, and size to the TAMU Office of Technology Commercialization. These breeding lines are currently subjects of evaluation agreements with national and international industry partners.

Popular Press Articles About The Brugmansia Breeding Program

2011 [AgriLife Research scientists trumpeting possible new adaptation of tropical flower](#). By Kay Ledbetter. AgriLife Communications.

Funding Sources

Texas AgriLife Research
Texas Foundation Seed Service



Examples of breeding lines selected for unique flower color and shape