

*Maurandya wislizenii*

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New Crops Research



*Maurandya wislizenii*



*Maurandya antirrhinus*

*Maurandya wislizenii* Engelm.  
Balloon Snapdragon vine

The Balloon Snapdragon vine is part of the snapdragon family or Scrophulariaceae. It was named after Maurandy, a professor of botany at Cartagena, Spain. It is also written as *Maurandia* and is also known as *Asarina antirrhiniflora* Hump. And Bonpl. Other common names include Pennel, Netcup vine and Violet Twining Snapdragon.

*Maurandya* is native to North America, primarily Western Texas to Southeast California and Mexico. These are generally hot and dry areas, typically desert mountains. It has been found at altitudes of 7000 ft., but generally treat as an annual at 6000 ft (Bailey). The zones this is normally found in range from 7 to 10. I have not found anything to suggest that this plant would become invasive. The native soils that this plant is found on are generally sandy, gravelly or rocky and are usually calcareous (Abrams). Considering that this plant is native to such a broad range, there is no specific plant community associated with it.

*Maurandya* is a climbing type plant that climbs by twisting leaf and flower stalks. Leaves are alternate, triangular hastate, usually 2-6cm long and coarsely toothed. Petioles are about as long as the leaves. The corolla is pale blue, 20-30 cm long, palate is absent, capsule opening at the apex and near the base of the persistent style (Hutchins). The seeds are about 1/8 inch long, brown and winged. There are no underground storage organs, just a fibrous root system. This plant normally blooms in the summer. As far as I have been able to find, there are no known uses of Balloon Snapdragon Vine by native people of the Southwestern US.

Most of what is available is in the species *M. antirrhiniflora*, and there are some species available under the names of *Asarina sp.* There are no cultivars currently on the market.

Balloon snapdragon vine is easiest to propagate from seed. It is especially advantageous that it will flower the first year from seed, however, I have discovered that they do not have a very long storage life, even under ideal conditions. I would recommend collecting the seed and planted as quickly as possible. Propagation vegetatively is a possibility and has been done, however, seed would be more economical considering that the plant readily produces seed. They vegetative propagation recommendations are to take cuttings anytime after mid-January (Bailey). I have not been able to get this plant to successfully germinate, so I do not know exactly how many seeds/flower. There is no seed dormancy or any special treatments for germination. The germination recommendations are to cover them and give them night temperatures of 60 degrees. Keep them well shaded until they germinate (Bailey). They take a long time to germinate, typically 21 days.

Ideally, this crop would be fast growing and flower quickly. They would have uniform and short germination periods and high yield potential. They would have a lot of flower and would be repeat bloomers throughout the season. A tolerance of drought and heat is necessary, especially if they are to be marketed for pots. The cultivars ideally would be bred in different colors as well. There is a lot to be done for breeding on this species, however, it is marketable in it's native phenotype as well.

I would expect this plant would be the easiest to market during spring bedding plant sales, I do not really see any holidays that this plant would be well suited for. It

certainly would be possible to force for winter, but I would expect this would be a difficult plant to keep in the house, therefore not being great for winter holidays. The downfall to marketing this in spring is that this would strongly compete with the Morning Glory vines. Both fast growing with showy flowers and Morning Glories would be much easier for customers to buy from seed and grow themselves. The name "Snapdragon" is a bonus because people are familiar with snapdragons and this will bring a mental image of the flower immediately to mind. The name is catchy and easy to remember and we are in a phase in the market where people want "new" and "different" with lots of color, which I think this crop could provide. I really think this could become a major crop, which we could have ready in the next 4-5 years.

Ideally this plant would like to have 55-60 degree F night temperature and 65-75 degree day temperature (Bailey). Cold hardiness zones 7-10. Water only when the root ball is getting dry and I would speculate at least 2500 ftc. considering the climate that they are native to. Suggested soil type is 2 parts loam, 2 parts leaf mold, and one part sand with manure being added when they are older and transplanted into large pots (Bailey). Bone meal is also suggested which leads me to think that they are easily deficient in calcium (Bailey). There should be no growth regulators needed since you would generally like the vines to grow pretty tall. They should be started in plug trays to save space since they are slow to germinate. Then they should be transplanted into 4" pots and some 6" pots could be trialed. I have found no diseases that they are especially susceptible to, however they are subject to red-spider mite and aphid infections.

There are no production schedules currently out for this genus, and considering that the seeds did not germinate, I am unable to speculate the number of weeks until flowering.

There are many opportunities for genetic improvement in this plant. Mainly, seed viability and a shorter germination period. There could be breeding efforts to increase the number of flowers and shorten the production period (once it is determined what that is). Also, Balloon Snapdragon vine comes in a limited color range, and there could be breeding for other color variations.

#### Literature Cited

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