

Noble Qualities

What qualities should a plant possess to be described as Noble? Possibly a plant which can withstand the heat and drought of a desert in summer, survive winters indoors in a sunny window or provide fiber and nourishment to multiple civilizations? If that is your definition of noble, then allow me to introduce you to *Agave americana*, commonly known as Century Plant.

Agave americana is a member of the Asparagaceae or Asparagus Family. *Agave* has 208 species that are native to Mexico and SW North America. The genus name was coined by Carl Linnaeus (1707-1778) and it is from the Greek *Agavos*, meaning kingly or noble! Perhaps it was the rosette of stoutly upright leaves, which loosely resemble a crown that inspired Linnaeus to conjure up the name. Indeed, the foliage is impressive, as it can stretch 3-5' tall with a spread of 6-10' in its natural environment! The species epithet indicates its native growing region of North America. The common name of Century Plant is derived from its flowering cycle. Although it may seem like a century, flowering actually occurs after only 10-30 years, following which the mother plant dies. This pattern of flowering followed by death is termed semelparous reproduction; it is an adaptation to an environment in which a necessary ingredient for life, such as water, is limited. The plant spends its life storing sufficient water and nutrients to produce one spectacular flowering event before perishing. In reality, the plant does not totally die, since it also reproduces asexually from adventitious roots and forms a number of baby plantlets or 'pups' around the base of the original plant.



Flowering is indeed a grand event for not only is it infrequent, it is also spectacular (plant pictured above is at the Atlanta Botanic Garden)! Over the course of several weeks, the flower stalk rockets upwards to 25+ feet in height, often with a diameter that rivals that of a telephone pole! Short branches appear near the top of the flower spike, which are tipped with clusters of five inch long yellow flowers that are pollinated by bats and butterflies. The flowers yield 2" long pods that are filled with shiny black seeds. Typically, the plants are not prone to flowering in a container although, in



celebration of Rutgers Gardens Centennial, a plant is coming into flower in the Gardens greenhouse (the developing flower is pictured above, December 1st on left and flower buds on December 30th on the right))! Its flower will be smaller, but still fascinating to watch as it unfurls.

Although the flowers are unique, the foliage carries the lion's share of the plants' economic and garden worthiness. The leaves can become large, growing to 6' long by 10" wide. Typical of most species of Agave, the leaf margins are armed with numerous spines or prickles, while the tip of the leaf narrows into a lethal, needle-like barb. As an expanding leaf peels away from the central bundle of new leaves, the impression of the outer leaf and its protective barbs are actually imprinted on the adjacent erect younger leaf (as is seen at right on the foliage of *Agave parryi*).



Needless-to-say, this is a plant with great architectural interest, but not one for frequent handling! The foliage contains a fibrous vascular system that runs along the length of the leaf and is connected to the terminal barb. Dried, the fiber and the terminal barb were used as a needle and thread and the fiber was prized for making clothing, mats and even paper-like products. Century plant is not alone for its economic importance for fiber, since *Agave sisalana* is the source of sisal twine.

The leaves are also prized for the sugar-rich sap. The leaves can be harvested in winter or spring when the sugar content is highest, cut into bite-sized pieces and roasted. When chewed upon, they release a rich caramel flavor. Once a plant has reached 6-8 years of age, the central core of leaves can be removed in order to harvest the sap. Over the course of a week, a plant produces about ½ gallon of sugary sap that can be consumed fresh, boiled down into Agave syrup or distilled into an alcoholic beverage called mescal. Its cousin, *Agave tequilana* is probably better known in the realms of distilled beverages, as it is the source of Tequila. The sap of Century Plant also has antiseptic and anti-inflammatory properties, making it a valued herb for the treatment of burns, cuts and insect bites!



If you are seeking additional foliar interest, there are numerous forms with attractive white or golden variegation to enhance its ornamental appeal. *Agave americana* 'Variegata' (picture on above on the right) has upright foliage to 4-5' with narrow, creamy-yellow margins and contrasting dark purple spines along the leaf edge and tip. The cultivar name of 'Variegata' is often a catchall for any form with white to yellow variegated foliage, which explains the number of different forms on the market under the umbrella of this name. The selection 'Medo Picta' grows to a more modest 2-3' tall with very attractive broad central white band down the leaf.

Although the common name celebrates the flower, the noble qualities of *Agave americana* obviously stretch far beyond to include not just its foliage and its economic importance, but hopefully a spot in your garden as well!