

Agave

Chris Kidd busts some myths about this admirable genus, celebrates its tenacity and offers a *Mea culpa*

The genus *Agave* in the family *Agavaceae* has about 300 species, all of which are herbs modified to cope with the arid regions of North America and northern South America.

The name *Agave* is derived from the Greek *agavos* meaning admirable, in reference to the handsome, statuesque nature of the plants in flower. To cope with inhospitable arid conditions with high light intensity coupled with diurnal chill these plants have used the same morphological tricks as other plants, related or not. Stems are much reduced, causing the plants to form a rosette. Leaves are simple and space saving, often leathery or thick, surculose basally and tipped with points, all in order to reduce water loss. Roots may function annually for water and nutrient uptake, withering to sinewy ropes during dry seasons for stabilisation purposes only. While some species can be considered multiannual or perennial where such lifestyles suit the evolutionary niche, the majority that concern us in horticulture, specifically at Ventnor Botanic Garden, are monocarpic.

Agave in cultivation has long been grown in colder climes under protection from glasshouses, often ornate grand designs of earlier eras. Botanic gardens of these times showcased the wealth of empires, extraordinary plants from around the globe presented as trophies. For a period, any public glasshouse that endeavoured to show plants of the desert would have an *Agave americana* within the showcase, large and dramatic, evocative of far-off scalding tropics. Periodically, one of these magnificent specimens would flower – an unusual event for the time. A giant flower spike would emerge up to 3m tall, bracketed with candelabra arms holding clusters of curiously puce flowers. Sometimes this would necessitate the removing of a glazing pane to allow the spike an exit hole. The relative unusualness of this, coupled with the expectation that desert plants must grow painfully slowly (it's the dryness, you know) gave rise to the (still) popular myth that these plants flower once in a century.

In the milder parts of the UK *Agave americana* was trialled outside, often to great success. Lithographs and pictures from Trecco, Isles of Scilly, show *Agave americana* alive and well: the more adventurous southern gardens would have grown it too. In Ventnor, a plant grew on the Cascades Garden and famously flowered, drawing headlines and visitors in droves. Certainly by the advent of Steephill Pleasure Gardens, *Agave americana* was in the collection developed by Hillier. We don't know if it was Sir Harold



A. oaxacaensis in the wild in Mexico.
Photograph by Nick Macer

or his superintendent Roy Dore who introduced it here, but through the 1970s there were plants in this Garden. Of equal certainty is that none survived the winter of 1986, but will have been replaced by Simon Goodenough through the 1990s, including a specimen at the very entrance to the Garden. This specimen flowered early in the first decade of the 2000s as a great relief to us all; by this time *Agave americana* was considered passé, too easy in other words – and there were 299 other species to experiment with.

Our early experiments with Agave other than *A. americana* arose from the repurposing of the Temperate House. We moved out the dreadful cacti and succulent collection with a view to disposal. The lone voice of then-VBG gardener and photographer Julian Winslow saved the plants from the compost yard. Against my judgment they were planted on the south facing bank outside to do or die (I expected the latter).

The following year a very surprising percentage had survived, in particular Agave, Aloe and Opuntia, indeed given light and moisture these dusty relics thrived in the spring and summer. On this evidence we decided to increase the collections and the direction was set for the creation of what became the Arid Garden, opened by HRH the Prince of Wales and the Duchess of Cornwall on 17th July 2009. In the meantime we began investigating what species of Agave were possible in our microclimate.

Quickly avoiding the various variegated clones and monsters, we alighted on *Agave salmiana* from Central Mexico. Fortuitously, some Friends of the Garden had in 2005 flowered a plant in Ryde they called *A. salmiana* var *crassispinia*. Dagmar and Walter donated three seedpods, which had many seeds; we grew these on and planted out dozens in 2008. Other accessions came from gardens throughout Britain during the great expansion of collections to fill out the new garden areas we had created.

Seeds from other botanic gardens were the source of new plants too. Ian Miller was particularly proud to germinate *A. franzosinii* from Monaco Botanic Garden. Specialist collectors shared their plants that would grow better out of doors than in pots. Nick Macer ultimately transferred most of his private collection of Mexican Agave to us over a period of years: known source material from Bob Brown followed. Ultimately our Agave accession list held nearly 100 accessions, with maybe 40 species presented.

Some species of Agave are still beyond our ability. Ironically, the two species with the highest non-horticultural commodity value, *A. sisalana* and *A. tequilana*, the sources of sisal and tequila respectively, have defeated us, despite many attempts.

As usual with non-documented commercially sourced plant collections, an awful lot of what is sold as one thing turns out to be another. I lost count of plants offered in the trade as *A. harvardiana* that turned out to be small *A. americana* or worse, its variegated idiot cousin. The success of the palms throughout the Arid Garden has taken its toll on the collection, as has the last severe winter; theft and death where seeds failed to set or new plants arose from offset. Colin Pope and I began a stocktake in August to better understand the collection as of 2018, which will guide the accessions policy onwards.



A. oaxacaensis by Nick Macer