July 31—After a few days of record high temperatures, an inch of rain was followed by an unusual eight days of below 100 F to end the month. Acacias flowering included a large variety with large white spines (\textit{A. eburnea?}, \textit{A. craspedocarpa} (leather leaf) with rod-shaped yellow flowers even on small plants, \textit{A. aneura}, a small tree with rod-shaped yellow flowers, and \textit{A. millefolia} (Santa Rita), a large shrub with cream-colored flower spikes even in shade. \textit{Jatropha cinerea} from Sonora, now at 15 feet, has bright green leaves and is readily grown from cuttings. Desert willow (\textit{Chilopsis linearis}) is great as a shrub or tree. Shrubs flowering included red bird (\textit{Caesalpinia pulcherima}), Mexican bird (\textit{C. mexicana}) and yellow bells (\textit{Tecoma stans}).

Succulent plants are a lot happier with July than I am but it certainly helps to see these plants flowering. The best of these have been the native mammillaria (\textit{M. microcarpa}) with bright flowers on good sized clumps several times this summer. Cochemia (from Baja) with their bright tubular red flowers are sometimes listed with the mammillarias. \textit{Notocactus magnificus} flowered again as did \textit{N. schumannianus} and \textit{N. warasii} and several kinds of gymnocalycium. \textit{Thelocactus (Hamatocactus) setispinus} continues with its bright multicolored flowers and in between flowering, there are bright red fruit. All of the above are best with some shade, and flower well in continuous shade under desert trees. Of course, most of the barrel cactus are fine in full sun as they get larger and this past month those flowering included \textit{F. rectispinus}, \textit{F. pilosus}, \textit{F. cylindraecus}, \textit{F. hamatacanthus}, \textit{F. covillei} and \textit{F. wislizeni}. \textit{Stenocereus gummosus} continues to flower with the largest, most colorful of the stenocereus flowers. \textit{Aloe karasbergensis} flowered almost all month in the shade and is one of our favorites.

Last summer the growth of some columnar cactus seedlings in 20 years was described. The largest of these plants haven’t added much height but are filling out and adding arms. \textit{Trichocereus tercheckii}, at 13 feet in the shade of an acacia, has added three arms at six feet. In full sun the tallest is only six feet while in morning sun it is up to 10 feet. Cardons are up to 15 feet but don’t look identical. The only one with damage (frost?) at the top (9 feet) has put out four arms at four feet. \textit{Pachycereus pecten-arboriginum} at 10 feet in part shade has filled out and added three arms at six feet. \textit{Neocardenasia herzogiana} has added a couple of feet to reach six feet in full sun. A much larger plant under a large mesquite has added four arms where it broke at 11 feet in high wind. None of these four kinds of cacti have flowered yet. \textit{Stenocereus dumortieri} is up to 10 feet and \textit{S. stellatus}, finally doing well and up to 11 feet in morning sun, have yet to flower.

Columnar cacti that do flower at about six feet include the old standbys \textit{S. thurberi} (Arizona organ pipes) the tallest of which is 10 feet (slow to get tall but make nice clumps even at just a few feet high), senitas (\textit{S. schottii}) and \textit{S. griseus} (Mexican organ pipes). The Aztec column, \textit{Neobuxbaumia polylopha} has flowered for the first time at seven feet and \textit{Oreocereus fossulatus} first flowered at six feet. The large cereus varieties are all flowering again. \textit{Cereus aethiops} with 22 flowers on four arms to eight feet and
Huntington’s cereus with 15 flowers on an eight foot plant are especially nice with bright pink flowers and black spines.

Other columnar cacti not mentioned previously include *Browningia (Azurocereus) hertlingiana*, a bright blue plant at six feet and just getting started. Three kinds that are somewhat similar and often confused are *Escontr sia chiotilla* and *Lemaireocereus chende* and *L. chichipe*. All are doing well in the ground but didn’t in pots. We are looking forward to seeing them in habitat around Puebla and Oaxaca. *Neobuxbaumia euphorbioides* has recently been planted in a somewhat protected spot. It is more cold-sensitive than the others and had been kept in pots…but not much growth that way.

Another large branching columnar has a blue body with yellow brown spines and white wool near the stem tops. This looks like *Facheiroa sp. Nova* on p.112 of the Innes and Glass book cited below and it takes full sun.

Several good books on succulent plants have been mentioned in previous articles. Here are some more…all are very well illustrated and usually have some useful growing and identification info.

*Landscape Plants for Dry Regions* by W. Jones and C. Sacamano (2000)

*Plants for Dry Climates* by Duffield and Jones (1992)

*Native Plants for Southwestern Landscapes* by Judy Mielke (1991)

*The Illustrated Encyclopedia of Cacti* by Innes and Glass (2001)


*Cacti* by J. Borg. A classic, but only limited illustrations.

*South African Aloes* by Barbara Jeppe. A very nice book with rainfall and temperature range for each variety as well as a list of flowering by month.