

The Garden's Role in Cultivar Introduction

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Over some seventy years now, California's four large native botanic gardens—Rancho Santa Ana, Santa Barbara, U.C. Berkeley, and the Regional Parks—have played vital roles in the introduction of native cultivars. These great gardens have joined a number of private nurseries in this endeavor.

Most cultivars are clones, in other words they involve genetically identical plants reproduced vegetatively. A cultivar may begin as a selection made in the field, for instance an unusually floriferous individual that really stands out from run-of-the-mill examples of a common species. Or it may begin as a hybrid individual that unexpectedly appears in a garden setting where two species that could never have a chance to interbreed in the wild are growing together. A cultivar could even begin as a mutant new branch with unusual foliage on a tree that hitherto seemed unremarkable.



Fremontodendron californicum 'Margo'

A botanic garden horticulturist or nursery person can designate a cultivar by publishing it. The rules for publication of cultivars are simple and few, in contrast to the rules for naming new species. The cultivar name is given in single quotes after the Latin name, for example *Fremontodendron californicum* 'California Glory'. The cultivar name is never Latinized; it must appear in the vernacular. Valid publication is achieved very simply, merely by printing the name in a published nursery list or catalogue.

However, the International Code of Nomenclature for Cultivated Plants recommends a somewhat more serious

approach, in which a description of the cultivar's uniqueness and its origin are given to a designated registration authority, along with a photo and a herbarium sheet. In practice this is rarely done. One rather amusing requirement is stated in the code's Article 42: "A cultivar name is not validly published and must be rejected if the cultivar of which it purports to be the name neither does nor did exist."



Detail of flowers on
Fremontodendron 'Margo'

Sometimes a proposed cultivar is given very extensive garden testing at multiple sites with varying cultural conditions before it is offered to the nursery trade. This is desirable but not required by the Code, and few gardens or organizations take the time to do this. Horticulturists typically lack the requisite time and resources.

Many revered pioneers in California native horticulture have put considerable effort into the search for new and promising plants, their propagation and experimental trials, formal introduction as cultivars, and marketing. I believe Rancho Santa Ana Botanic Garden has had the most



Ceanothus ramulosus 'Rodeomarin'
Photographs courtesy of RPBG

enduring, long-term program of cultivar introduction and has been responsible for more native introductions than any other entity, public or private.

Ironically, despite decades of work by horticultural glitterati (with prodigious green thumbs) like Maunsell Van Rensselaer, Percy Everett, Ken Taylor, Wayne Roderick, Nevin Smith, and many, many more, the introduction of native cultivars has made only minor inroads into the nursery trade, dominated as it is by titanic growers whose choices are dictated by market forces. They deal in horticultural clichés. There are hopeful signs, however, since drought, increasing water demand with exploding population, the environmental movement, and the hardy efforts of dedicated native-plant growers, have combined to increase demand of late. One need only compare the turnout at the Regional Parks Botanic Garden's annual spring plant sale to what it was in the early years. Many buyers at these sales are attracted by fancy cultivar names. Or they may be looking for tried-and-true entities with proven horticultural merit, and cultivars regularly satisfy that desire. And there is no lull in the rate of introduction of native cultivars. I imagine the rate today is higher than ever before.

The Regional Parks Botanic Garden has introduced numerous cultivars, and provided propagules that were used by others to do the same. The garden staff is always on the lookout for potential cultivars, both in the field and in the garden. The most recent—a fabulous golden-orange monkeyflower—was spotted by Glenn Keator and Joe Dahl on Santa Cruz Island and is being introduced by Glenn in Volume 11, No. 3 of *The Four Seasons*. Following is a loosely chronological, annotated list of all the cultivars (of which I am aware) that have been introduced by or from the Regional Parks Botanic Garden. In addition to the cultivars listed, we are experimenting with fifteen other entities that we consider worthy of cultivar status.

Although the list demonstrates that Jim Roof's fabulous collection of native plants here at the garden gave rise to a number of cultivars, Jim himself was not particularly interested in naming them. He often stated in conversation that the "southern gardens" had been turned into cultivar gardens and therefore ruined. Of course this was not true, but his repetition of such a remark at least suggests he was not fond of cultivars. One of his reasons for this was that he felt a botanic garden should display truly characteristic examples of good wild species so that visitors can learn how the plants actually look in nature. After Roof's time, garden staff introduced numerous cultivars; but we have generally avoided growing cultivars here that are not field-collected, field-documented plants. The garden has limited space and it is important, as Jim suggested, to devote that space to "realistic" plants—i.e., entities that represent the wild taxa.



Arctostaphylos densiflora 'Ariel', a profusely blooming compact manzanita

One downside to the proliferation of cultivars is that it promulgates genetic homogeneity. This is a real danger in agriculture, for example, when an important food plant lacks sufficient genetic diversity to endure threats from continually evolving insect pests. The same thing could happen if California native cultivars were used in a big way for restoration projects. It is probably best to use cultivars in home gardens and local wild ecotypes for restoration or large-scale roadside plantings.

Cultivars from the Regional Parks Botanic Garden:

1. *Garrya elliptica* 'James Roof'. Given to Maunsell Van Rensselaer of the Saratoga Horticultural Foundation in 1952. Van Rensselaer bestowed the name. Widely used today. 1961 Cal. Hort. Award of Merit.
2. *Arctostaphylos uva-ursi* 'Pt. Reyes'. Cuttings apparently taken here at the Garden by Louis Edmunds, who conveyed the plant to Rancho Santa Ana. They introduced the cultivar in 1956. One of the best bearberries available in the trade.
3. *Physocarpus capitatus* 'Tilden Park'. Cuttings from our San Bruno Mountain low-mounding form taken by Roy Taylor in 1976.
4. *Arctostaphylos pajaroensis* 'Paradise'. Introduced to the trade, from a selection here in the Garden, by Wayne Roderick in 1978. 1979 Cal. Hort. Award of Merit.
5. *Fritillaria affinis* 'Wayne Roderick'. An intergrade between typical *affinis* and the variety *tristulus*, selected by Wayne. Available in specialty nurseries in England.
6. *Arctostaphylos densiflora* 'Ariel'. Described by Jim Roof in *The Changing Seasons*, Volume 1, No.2, 1980. An unbelievably profuse bloomer, selected originally from the 'James West' group on Vine Hill Road in Sonoma County.
7. *Fritillaria biflora* 'Martha Roderick'. Selected by Wayne from type-locality plants of *F. roderickii* near Schooner Gulch. Micropropagated in Holland beginning in 1986. 1990 Royal Horticultural Society Award of Merit.
8. *Dudleya* x 'Frank Reinelt'. One of Frank's best hybrids, from parents on Anacapa Island. Named by Wayne and Steve McCabe in *The Four Seasons* in 1991. A gorgeous dudleya, possibly available at Rancho Santa Ana and/or U.C. Santa Cruz.
9. *Ceanothus* 'Tilden Park'. A volunteer in the Garden's redwood section, named by Wayne in *The Four Seasons* in 1991. This one may have disappeared from horticulture.
10. *Rhamnus californica* ['Tilden Dwarf']. This is growing at Rancho Santa Ana and Bart O'Brien says it was at Yerba Buena in the 1980's. It might be mistaken to be a cultivar but it has probably never been published. It is unremarkable and we would not name it.
11. *Arctostaphylos uva-ursi* 'Tilden Park'. Wayne notes in his 1991 *Four Seasons* article that bearberries taken from this garden by unknown persons were popular groundcovers in Oregon and Washington at that time.
12. *Symphoricarpos albus* 'Tilden Park'. This one has been listed as a cultivar on California Flora Nursery's published availability list. Taken from this Garden by unknown person(s), probably in the early 1990's. Very likely taken from the colony with abundant large berries near the foot of the south branch of the horseshoe lawn.
13. *Arctostaphylos edmundsii parvifolia* 'Bert Johnson'. Among the most exquisite of low-mounding manzanitas. Long available in the trade (for example, through Saratoga Hort.) but not named as a cultivar until 1991, by S.W. Edwards in *The Four Seasons*.
14. *Arctostaphylos auriculata* 'Knobcone Point'. A form of *auriculata* with retention of juvenile, imbricate leaves. Named by S.W. Edwards in *The Four Seasons* in 1991. One of the most spectacular plants in the Rancho Santa Ana cultivar garden at one time, but difficult to grow. At this time still experimental.
15. *Fremontodendron californicum* 'Margo'. Named by Al Seneres in *The Four Seasons* in 1991. A spectacular, low-sweeping, profusely blooming form but very difficult to propagate. This is a fatal flaw for a cultivar. S.W. Edwards recently had good success propagating it from stump sprouts.
16. *Mahonia* cf. *pinnata* 'Pyramid Point'. Named by Al Seneres in *The Four Seasons* in 1991. Possibly the most lovely of all barberries. We have only recently provided plants to Rancho Santa Ana for their cultivar garden. Otherwise not yet available.

17. *Arctostaphylos refugioensis* 'Pink Glory'. A heavy bloomer with large clusters of pink flowers followed by large berries. Named by Bert Johnson in *The Four Seasons* in 1991. Not yet available in the trade.
18. *Arctostaphylos viridissima* 'White Cloud' has some of the most massive panicles known in the genus. Named by Bert Johnson with the preceding, but not yet in the trade.
19. *Arctostaphylos uva-ursi* 'Green Supreme'. A fine groundcover that appeared as a volunteer in the garden's foothill section. Named by Bert Johnson with the preceding. Usually available at our annual plant sale.
20. *A. uva-ursi* 'Pt. St. George'. A form with very large, bright red berries that are held on the plant abundantly for six months or so. Named by Bert Johnson with the preceding. Usually available at our annual plant sale.
21. *Mahonia dictyota* 'Shasta Blue'. Possibly the most effective of all barrier plants. Named by Bert Johnson with the preceding, and sometimes available at our annual plant sale.
22. *Cornus sericea* 'Stinson Beach'. This is the tall form growing beneath the Garden's main bridge. Named by Bert Johnson with the preceding. This one has not "caught on" and so is not yet available.
23. *Baccharis pilularis* 'Al's Blue'. Named in *The Four Seasons* in 1992 by Al Seneres. A dense, somewhat bluish, high mound, intermediate in stature between var. *pilularis* and var. *consanguinea*. This one has not caught on and is seldom available.
24. *Arctostaphylos uva-ursi* 'Tom's Point'. A lush groundcover named by Bert Johnson in *The Four Seasons* in 1993. Not yet available.
25. *Sedum spathulifolium pruinatum* 'False Klamath Cove'. An excellent powdery white form, at least as good as 'Cape Blanco', but, unlike the latter, from California. Named in *The Four Seasons* in 1994 by Nezzie Wade and Steve Darrington. Not yet available.
26. *Ceanothus ramulosus* 'Rodeomarin'. A tough, low-mounding groundcover with pale blue flowers named by S.W. Edwards in *The Four Seasons* in 1999. Available soon.
27. *Festuca idahoensis* 'Stony Creek'. A blue California-native alternative to *F. ovina*, named by S.W. Edwards with the preceding. Available soon.
28. *Sedum spathulifolium* 'Campbell Lake'. A selection by Jenny Fleming from the Marble Mountains. Another good glaucous form, named by S.W. Edwards with the preceding, and usually available at our annual plant sale.
29. *Lepechinia calycina* 'Rocky Point'. A low-sweeping form with soft, convex leaves, found by Al Seneres in Monterey County in 1988. This has appeared with the cultivar name on the Cal Flora nursery availability list. It is one of Bart O'Brien's favorite plants in the Rancho Santa Ana cultivar garden.
30. *Mimulus cardinalis*. An "outrageous" new form with golden-orange flowers will be named by Glenn Keator this December in *The Four Seasons*.