

2021 Landscaping With Colorado Native Plants Conference

“A Western Perspective on Native Plants; A Career Bringing Natives from Habitat to Market”

presented by
David Salman
Chief Horticulturist
High Country Gardens

photos by David Salman

2. Native Plants from Different Western Ecosystems

Colorado is at the intersection of four major ecosystems

- Colorado Plateau
- Great Basin
- Rocky Mountains.
- Great Plains

These ecosystems provide a wealth of native plant species that grow successfully here.

Additionally plants from the drier, colder parts of

- Californian
- Pacific NW

ecosystems are also well suited to the area.

3. Different Uses for Native Plants

Reclamation

- Restoration of a disturbed site due to fire, mining or other human activities.
- Ideally only native plants grown from seed collected in the local area should be used.
- Genetic preservation of local flora is a key objective.

Photo caption: The edge of the Western Great Plains in eastern New Mexico

4. Different Uses for Native Plants

Ornamental Landscaping

- The ecosystems of our urban, suburban and many rural farmlands have been irreparably damaged by human activity.
- We need to use the most resilient selections of native plants to adapt to the difficult conditions of these man-made environments.
- Good cultivars represent superior genetics that can adapt to a wide range of conditions.

5. What is a native plant?

Native plant – occurring in North America before the arrival of European settlers.

A native plant cultivar is a selected form chosen for desirable characteristics.

- Cultivars can be from a superior population of plants
- Cultivars can be vegetatively propagated from a superior individual plant.
- Cultivars can hybrids from the garden, breeders or from a native hybrid swarm (population).

Photo caption: Zinna grandiflora ‘Golden Eye’ is seed grown from a superior population in Mora Co., NM

6. What is a native plant?

Native plant hybrids:

- Hybridization often occurs in nature.
- Naturally occurring hybrids occur when the range of two species overlap and pollen is transferred between species.
- Garden hybrid – a pollinator created cross between two native species. Known as an F1 hybrid (first generation hybrid) or a cross between cultivars of the same species.

Photo caption: Agastache ‘Ava’ – F1 garden hybrid between *A. barberi* and *A. cana* →

7. What degree of genetic domestication is acceptable to be considered a native plant?

This is an example of a highly hybridized Echinacea (Cone Flower) that is a result of crossing multiple species across multiple generations to achieve a cultivar that would not be found in nature.

While this plant has only native genetics, I don’t consider it a native plant because it can’t be found in nature.

Photo caption: Echinacea x Cara Mia™ Yellow

8. Criteria I Use to Make New Plant Selections

- Cold hardiness
- Providing nectar for pollinators
- Xeric
- Well adapted to Western climate and growing conditions

Photo caption: *Salvia darcyi* Vermillion Bluffs® - 2007 Plant Select winner

9. Purchasing Seed from Native Seed catalogs

Beginning early in my career, I wasn’t able to travel much to look for native plants. I was too busy running my retail greenhouse and nursery business. But I was very fortunate to have fantastic sources for native seeds, often habitat collected, to grow and evaluate many native plants.

Photo caption: Catalogs from Rocky Mountain Rare Plants, Alplains, Plants of the Southwest

10. The High Country Gardens catalog

Have the catalog enabled me to sell specialty and native plants to a large regional audience of gardeners far beyond Santa Fe, allowing me to grow many plants that weren’t locally popular.

11. *Bouteloua gracilis* ‘Blonde Ambition’ (Blue Grama Grass) – I discovered the original plant in my backyard. I only noticed it because the chartreuse flower heads stood out from all the black flower heads of the other plants. I dug the original plant and put it into one of my test beds. After a couple of growing seasons, it was immediately apparent that it was a large, vigorous variant of the species. A 2011 Plant Select winner.

Photo captions: (left) comparison of Blonde Ambition and regular blue grama seed heads. (right) ‘Blonde Ambition’ growing at DBG Chatfield with *Amorpha canescens*

12. *Bouteloua gracilis* ‘Blonde Ambition’ (Blue Grama Grass)

Photo captions: (left) ‘Blonde Ambition’ growing with *Chrysothamnus* ‘Baby Blue’ at the Colorado Springs Xeric Demonstrations Garden, CS Water Utility. (right) Showing the large size of ‘Blonde Ambition’ with my dog Jarrah resting in its shade.

13. *Bouteloua* x ‘Zig Zag’ (*Bouteloua gracilis* x *hirsuta*) – a natural hybrid discovered in a Santa Fe landscape. The original plant caught my eye with its compact habit. But it was also growing in a very dry, dry, poor soil and still have a profusion of dense flower/seed heads. To be released for sale in 2022.

Photo caption: With *Aster oblongifolius* ‘Dream of Beauty’, *Eriogonum allenii* “Little Rascal”

14. *Bouteloua* x ‘Zig Zag’

Photo caption: growing with *Eriogonum allenii* ‘Little Rascal’ (a seed grown cultivar bred for compact habit and profusion of large flower heads) and *Agastache rupestris*.

15. *Bouteloua* x ‘Zig Zag’

Photo caption: with *Origanum* x ‘Erntedank’, *Liatris mucronata*

16. *Sorghastrum nutans* ‘Thin Man’ (Thin Man Indian Grass) – I selected the original plant from a field of *Sorghastrum* ‘Llano’, an improved pasture cultivar. The plant was noticeably upright and densely branched.

Photo caption: ‘Thin Man’ in October showing its beautiful fall coloration and strongly upright habit that holds its shape even after heavy snow.

17. *Sorghastrum nutans* ‘Thin Man’ (Thin Man Indian Grass) showing the grass coming into bloom in September with golden flowers. The plant has very blue foliage.

18. *Sporobolus wrightii* ‘Windbreaker’ (Giant Sacaton Grass) – a strain of Giant Sacaton bred to reach an exceptions size at the USDA Los Lunas Plant Materials Center. It was to be used as a windbreak around vegetable fields in the Southwest. But I recognized its ornamental value and introduced it for landscape use. The strain has flowers that range in color from burgundy, to bronze and blonde.

Photo caption: Growing in a commercial landscape in northern NM

19. *Sporobolus wrightii* ‘Windbreaker’ (Giant Sacaton Grass)

Photo caption: one of the original plants in Los Lunas that reached 10 ft. in height and 6 ft. in width.

20. *Muhlenbergia reverchonii* (Undaunted® Ruby Muhly) – an incredible endemic species from north TX and western OK. It blooms in August and seed heads mature to tan in winter. I collected the original seed for the Plant Select® variety Undaunted® Ruby Muhly from a field near Fort Worth, TX. Excellent cold hardiness.

Photo caption: (left) with *Vernonia lindheimeri* v. *leucophylla*, (right) with *Salvia reptans* Autumn Sapphire™

21. *Zauschneria garrettii* Orange Carpet® (Fire Chalice) – I grew seed purchased from Rocky Mountain Rare Plants in the early 1990’s collected in northwestern Wyoming. Out of a large crop of plants, I spotted one individual that grew horizontally, not vertically like all the other plants. A vigorous blooming groundcover with USDA zone 4 cold hardiness. I sold my first plants in 1996.

22. *Zauschneria garrettii* Orange Carpet® - A natural genetic variant that grows horizontally like a groundcover

23. *Scrophularia macrantha* (Red Birds in a Tree) - A very rare native species found only in three mountaintop locations in New Mexico. I purchased a seed packet from Rocky Mountain Rare Plants. I planted stock plants in my garden to grow enough seed to grow it in sufficient #s to introduce the plant through High Country Gardens.

24. *Scrophularia macrantha* (Red Birds in a Tree) – showing a mature plant

25. *Hymenoxys scaposa* (Thrift Leaf Sundancer Daisy) – I first came acquainted with the plant through Plants of the Southwest. I then went looking for it in habitat on the plains of eastern NM where I made

my original seed collection. I've been growing this collection for over 20 years in my gardens to harvest seed for commercial production.1

26. *Hymenoxys hoopsii* (Owl's Claw) - A collection made at a lower elevation in a drier part of eastern AZ. This lower elevation/drier site population, of what is typically sub-alpine meadow wildflower, should be growable at lower elevations like the Front Range of CO.

27. Southwestern Native Seeds: Sally Walker and husband Tim

- This remarkable woman and her husband, based in Tucson, AZ, spent decades driving around in their VW van, collecting native seeds from habitat in the Southwestern US and northern MX. She is now retired.
- Seed list included location data, elevation range and many other facts.

28. *Agastache rupestris* (Licorice Mint Hyssop) – a very rare species native to western NM and eastern AZ. I bought my original seed packet from Southwestern Native Seeds. I quickly knew this was a very special hyssop species and immediately began growing stock plants for seed production. In 1996, High Country Gardens was the first commercial grower of the plant which has become known across North America and Europe. A 1997 Plant Select winner.

29. *Aquilegia desertorum* (Arizona Columbine) – an obscure species acquired as seed packets from Southwestern Native Seeds. Originating from the Mogollon Rim in central AZ, this everblooming species is one of my favorite columbines for mid-elevation gardens because it can take more sun and drier conditions. I've grown and collected seed for many years to grow it for High Country Gardens.

30. *Aquilegia desertorum* (Arizona Columbine) – showing the whole plant and its beautiful foliage.

31. *Aquilegia longissima* Swallowtail® (Longspur Columbine) – grown from seed collected by Sally Walker/Southwestern Native Seeds in a remote canyon in southern Arizona, this exceptionally beautiful and very rare species is an outstanding garden plant. I've grown seed for this cultivar since 2000, when it was introduced through the High Country Gardens catalog.

32. *Aquilegia longissima* Swallowtail® (Longspur Columbine) – a close up showing the 4 to 4½" long spurs.

33. *Agave parryi* (Parry's Century Plant) My original seeds were purchased from Alan Bradshaw's incredible catalog, Alplains. I later found the same population and collected enough seed to put this super cold hardy Agave into commercial production.

Photo caption: *Agave parryi* plant grown from seed collected near Flagstaff, AZ at 6,800 ft. elevation.

34. *Agave parryi* (Parry's Century Plant) – I learned about a high elevation population of *A. parryi* from the Mesa Garden catalog (Steven Brack, founder) and was able to find the colonies high in the Sierra Ancha Mts. of central AZ. This may be even cold hardier than the Flagstaff population.

Photo caption: A plant in habitat among *Manzantia* and *Alligator Juniper*, at 6,700 ft. elevation near Young, AZ.

35. *Helianthus maximiliana* 'Santa Fe' (Maximilian's Sunflower) – grown as a pass-along plant in Albuquerque and Santa Fe, I spotted a particularly large flowered and upright growing plant in a yard I pass going to work every day. Grown from cuttings, this superior cultivar provides consistent garden performance.

Photo caption: growing with *Agastache* 'Ava' and *Perovskia* →

36. *Helianthus maximiliana* (Maximilian's Sunflower) – a seed grown plant with poor, flopping habit.

37. *Oenothera fremontii* ‘Shimmer’ (Fremont’s Evening Primrose) - selected for its very narrow, green turning to silver foliage. I spotted the original plant in a large colony of seed grown plants growing in Lauren Springer’s garden and took cuttings. I helped her to introduce and patent the plant which was first sold through High Country Gardens.

38. *Agastache urticifolia* ‘Alba’ (FlowerKisser™ Arizona Snow Hyssop) – I have been spending a lot of time exploring southeastern AZ which is botanically different from NM and Colorado. I found this white flowered form of this widespread western species in several roadside locations from which I collected seeds. This is USDA zone 4 cold hardy. Bumble bees absolutely love pollinating the flowers.

39. *Penstemon pseudospectabilis* ‘Coconino Country (Desert Beardtongue) – a cultivar selection grown from seed originally collected in the Flagstaff, AZ area by Alan Bradshaw of Alplains.

40. *Salvia* x *Raspberry Delight*® (*Salvia greggii* ‘Furman’s Red’ x *Salvia microphylla*) – this is an F1 hybrid I found in my garden. The plant is nearly everblooming and has outstanding cold hardiness once established. It was released in 2000 and has been successfully cultivated in Denver form many years.

Photo caption: Growing with *Salvia reptans*

41. *Salvia dorrii* (Desert Sage)

Photo caption: (left) *Salvia dorrii* ‘Deep Springs Blue’ with *Hymenoxys acaulis* v. *ivesiana* (right) *Salvia dorrii* ‘Deep Springs Blue’ close-up of flower with honeybees.

42. *Salvia pachyphylla* (Giant Purple Sage) – I was the first to sell this unknown native from the mountains of southeastern CA in 2004. Plant were grown from habitat collected seeds purchases from Alplains. ‘Mulberry Flambe’ is a selection I discovered in a customer’s yard many years ago in Santa Fe. It is notable for its intensely mulberry-red colored calyxes and very silver foliage. The species is quite variable with the calyx color varying from pale pink, pink, dark pink and red-pink. Having a cultivar selection insures gardeners they will have uniformly intense floral display. Seed grown.

Photo caption: A selected cultivar ‘Mulberry Flambe’ growing with Lavender and tree Yucca.

43. *Mahonia fremontii* (Fremont’s Mahonia)

Photo caption: (left) growing in its red rock canyon habitat of south-central UT, (right) stunning blue evergreen foliage. Seed is not commercially available and very difficult to come by. It typically must be collected in habitat. However I found a large landscape planting of mature plants growing in Socorro, NM giving me a seed source much closer to home.

44. Fremont’s Mahonia (*Mahonia fremontii*) – its very thorny evergreen foliage make it a great barrier plant and nesting location for songbirds.

Photo caption: (left) showing fragrant yellow flowers, (right) showing large eatable fruit

45. Desert Peach (*Prunus andersonii*) – a fantastic Great Basin shrub, I was able to get seed about 15 years ago so I could plant some garden plants as stock for seed collection. I now have a seed source in my front yard. I also learned a special seed germinating protocol for the plant and am now able to increase production to commercial quantities.

Photo caption: huge mature plants growing in the rubble of an abandoned mine in central NV.

46. Desert peach (*Prunus andersonii*)

Photo captions; (left) pink, very fragrant flowers (right) followed by small colorful but uneatable (for humans) fruit.

47. Fendler's Barberry (*Berberis fendleri*) – many years ago I learned of this native population in Taos, NM. After researching the plant, I discovered that the plants were unusually floriferous and set prodigious quantities of fruit. This is an excellent example of why it is worthy of being a cultivar selection.

Photo captions: (left) Profuse spring flowers of the Taos Co., NM form. (right) Incredible fall/winter display of red edible fruit

48. *Fraxinus cuspidata* (Fragrant Ash) - This large shrub/small native tree is native to the Southwestern US and northern MX. But it is an uncommon species and not commonly seen in habitat. I was able to get seed many years ago from the USDA Los Lunas Plant Materials Center and grown my own plants for seed production. With a seed source, I'm able to grow larger numbers of this fabulous little tree.

highcountrygardens.com