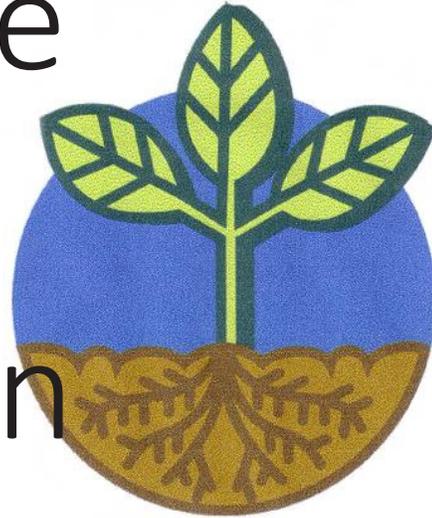


2016 Utah Native Plant Propagation Workshop



Utah Native Plant Propagation Workshop 2016



About our Utah Native Plant Propagation workshop

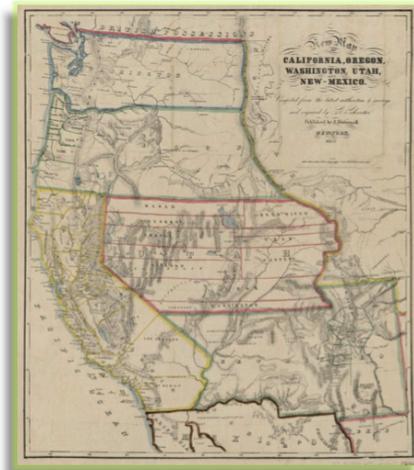
- ▶ Started by Susan Meyer
 - ▶ Seed biologist for the Forest Service
 - ▶ Chair of the Horticulture Committee of the Utah Native Plant Society
 - ▶ http://www.unps.org/PAGES/plant_data_table.html
- ▶ The Cache "PropShop" is now sponsored by:
 - ▶ Cache County USU Extension
 - ▶ Cache Valley Master Gardeners
 - ▶ Cache Chapter of the Utah Native Plant Society
- ▶ Purpose
 - ▶ Promote the understanding and propagation of native plants. As this workshop is taught in Cache County, the focus is on plants that can be grown here.
- ▶ Native plant definition:
 - ▶ As defined by Susan Meyer at the instigation of the workshop, a "native" is any plant found growing naturally within the borders of Utah Territory prior to settlement (circa 1847).



Susan Meyer

Tonight's workshop

- ▶ Welcome and introductions
- ▶ Today's topics (Classroom)
 - ▶ History of this Utah Native Plant Propagation workshop
 - ▶ Why native plants?
 - ▶ Workshop's featured plants
 - ▶ Hands-on lab overview and directions for growing seeds at home
- ▶ Workshop hands-on lab
 - ▶ Plant seeds!
- ▶ Resources



History of this Utah Native Plant Propagation workshop



What you need to know about the seeds in this workshop

- ▶ Native seeds and plants are:
 - ▶ Unique
 - ▶ Not typically found in nurseries
 - ▶ Germinated and propagated by growers under rigorous trials for nurseries
 - ▶ Limited in the every day market
- ▶ Our native seeds for this workshop:
 - ▶ Purchased from approved distributors
 - ▶ Gathered by the Master Gardener and Native Plant Society members from our yards

...and prepared months in advance of this workshop.

Congratulations! You have unique plants in store!

A dedicated slide to our #1 asked question!

Can I gather native plant seeds or native plants when I am out hiking?

Short answer: No.

Long answer: Native plants and seeds require knowledge of range and habitat to know whether or not an area can be collected from. If you want to gather seeds or plants, you should have a permit that proves due diligence in knowing what and where you are collecting. You can request a permit from Bureau of Land Management.

But...

Please see the Resources guide in this workbook to learn of nurseries where you can purchase native seeds and native plants.

Now to our workshop...

Percent vegetation change in the Pine and Wah Wah Valleys, Utah

SPECIES	1847	1947
Juniper-Pinyon	10	37
Sagebrush	1	11
Rabbitbrush	1	13
Winter Fat	25	9
Shadscale	10	21
Greasewood	5	5
Grass	45	5
Miscellaneous	1	1
Playa (Barren)	2	2

Cottam, 1947

BEFORE EUROPEAN SETTLEMENT

- ▶ Most native herbivore extinct due to climate change and hunting.
- ▶ Native plants evolved without much pressure.



Woolly Mammoth



Giant Ground Sloth



1900-Present: Weed damage

DISTRIBUTION of MAJOR RANGELAND WEEDS		
SPECIES	COMMON NAME	EST. HECTARES INFESTED
<i>Centaurea maculosa</i>	spotted knapweed	2,900,000
<i>C. diffusa</i>	diffuse knapweed	1,300,000
<i>C. solstitialis</i>	yellow starthistle	8,000,000
<i>Bromus tectorum</i>	downy brome	40,000,000
<i>Euphorbia esula</i>	leafy spurge	1,100,000

DiTomaso, 2000

After European settlement

- ▶ Many palatable grasses and forbs.
- ▶ Herding animals and range impact.



Why native plants?



Unique.



- ▶ Beauty you see in the valley, but not typical in our local nurseries.
- ▶ Pollinators unique to native plants.



- ▶ Water-wise.
- ▶ Bringing native beauty to your yard.
- ▶ Why are you interested in native plants?



Water conservation. Native plant selection leads to:



- ▶ Improved planning and design
- ▶ Better soil amendments
- ▶ Reduced turf areas
- ▶ Efficient irrigation and mulch to conserve moisture
- ▶ Less maintenance
- ▶ Increase native pollinators

ALL of these lead to fewer inputs - such as water and pest control - so you have LOWER maintenance and SAVE water!

Verses...plants you can...



A.W. Spirea



Lilac



Find Anywhere



Cistena Plum



Common Privet

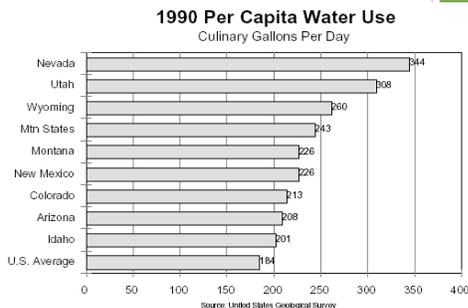


Cotoneaster

Workshop's featured plants



Water conservation.



<http://www.water.utah.gov/Brochures/wrdata/>

2016 Plant List

- Blue Gramma Grass
- Great Basin Wild Rye
- Venus Penstemon
- Showy Milkweed
- Antelope Milkweed
- Common Milkweed
- Alderleaf Mountain Mahogany
- Big Bluestem Grass
- Idaho Fescue
- Little Bluestem
- Nettleleaf Hyssop
- Prickly Poppy
- Aspen Sunflower
- Fernbush
- Rocky Mtn. Beeplant
- Blue Flax
- Broadbeard Penstemon
- Firecracker Penstemon
- Wasatch Penstemon
- Bristlecone Pine
- Goji Berry
- Big-tooth Maple
- Missouri Primrose
- Rocky Mtn. Iris
- Bush Morning-glory
- Blue Wild Rye
- Prince's Plume

Grasses/ Grass-likes

Great Basin Wildrye *Leymus cinereus*

- ▶ Basin native
- ▶ Clumping grass
- ▶ 3-7 ft. +
- ▶ Tends to flop with too much water
- ▶ Extra water during July-August will keep it green all summer



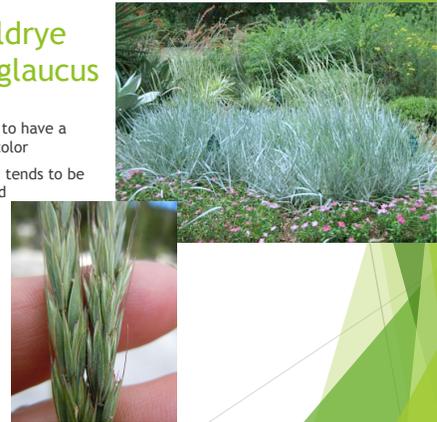
Blue Gramma *Bouteloua gracilis*

- ▶ Widespread over the western U.S.
- ▶ Slowly forming a turf
- ▶ To ~2 ft. tall
- ▶ Eyebrow shaped inflorescence



Blue Wildrye *Elymus glaucus*

- ▶ Leaves tend to have a nice bluish color
- ▶ Bunch grass, tends to be well behaved



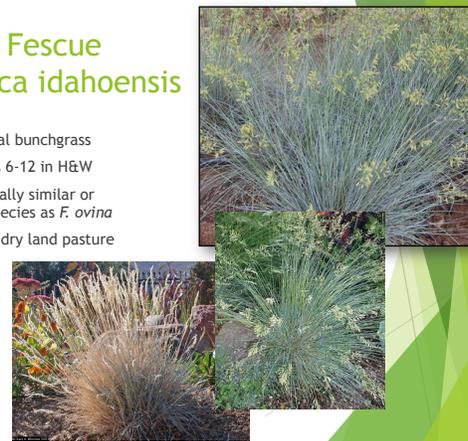
Big Bluestem *Andropogon gerardi*

- ▶ Widespread through much of lower U.S.
- ▶ Up to 10 ft. tall
- ▶ Good fall color
- ▶ Clumping, but can form a sod



Idaho Fescue *Festuca idahoensis*

- ▶ Perennial bunchgrass
- ▶ Reaches 6-12 in H&W
- ▶ Genetically similar or same species as *F. ovina*
- ▶ Used in dry land pasture mixes



Little Bluestem *Schizachyrium scoparium*

- ▶ Dense clumping grass with a formal upright appearance
- ▶ To 5' tall
- ▶ Good fall color
- ▶ Fuzzy white seeds



Missouri Evening Primrose *Oenothera macrocarpa*

- ▶ Dry prairie native
- ▶ 1 ft. tall
- ▶ Spreads to 2 ft. +
- ▶ Yellow flrs.
- ▶ Perennial
- ▶ Often will self-sow
- ▶ Stems reddish



Iris missouriensis Rocky Mountain Iris

- ▶ Wonderful blue flowers
- ▶ Tolerant of wet soils
- ▶ Challenging to grow from seed, but will self sow under favorable conditions



Prince's plume *Stanleya pinnata*

- ▶ Intolerant of wet soils
- ▶ Nice floral form
- ▶ Adaptable



Forbs

Venus Beardtongue *Penstemon venustus*

- ▶ Primarily found in the Northwest
- ▶ In Utah - found only in Duchesne County
- ▶ To 3ft.
- ▶ Difficult to move
- ▶ Flrs. Blue to lavender-blue



Venus Beardtongue *Penstemon venustus*

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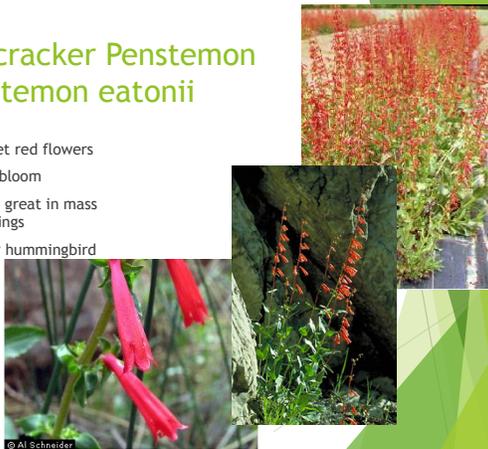
Showy Milkweed *Asclepias speciosa*

- ▶ Perennial
 - ▶ Large, 5' tall, easily spreads
 - ▶ Drought and nutrient tolerant
 - ▶ Great as backdrop or for areas that need stabilization
 - ▶ Most successful milkweed aiding in Monarch migration
 - ▶ USDA Fact sheet: http://plants.usda.gov/factsheet/pdf/fs_asep.pdf
 - ▶ <http://monarchwatch.org/>: Register your site and help track the Monarch migration.
- If you build it, they will come.



Firecracker Penstemon *Penstemon eatonii*

- ▶ Scarlet red flowers
- ▶ Long bloom
- ▶ Looks great in mass plantings
- ▶ Super hummingbird plant



Antelope Milkweed *Asclepias asperula*

- ▶ Low-lying, so great for rock gardens
- ▶ Capable of absorbing toxins from the environment



Broadbeard Penstemon *Penstemon angustifolius*

- ▶ Bright blue to blue-lavender flowers
- ▶ Prefers well drained, loose soils
- ▶ Dye plant



Common Milkweed *Aesclepias syriaca*

- ▶ Introduced to Utah
- ▶ Rhizomatous
- ▶ Fragrant flowers
- ▶ Monarch host east of the Rocky Mtns.



Rocky Mountain Beeplant *Cleome serrulata*

- ▶ Fragrant
- ▶ Annual
- ▶ Attracts pollinators
- ▶ To 4 ft. tall
- ▶ Flrs. Pink-purple
- ▶ Blooms until killed by frost
- ▶ Usually reseeds



Lewis Blue Flax *Linum Lewisii*

- ▶ Looks good as a specimen or in mass plantings
- ▶ Good blue color
- ▶ Plant stays green long into growing season



Nettleleaf Hyssop *Agastache urticifolia*

- ▶ Aromatic
- ▶ Soft pink clusters of flowers
- ▶ Edible herb



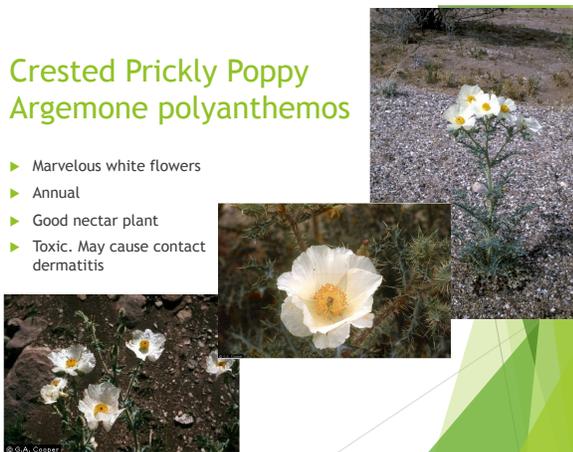
Aspen Sunflower/*Helianthella* *Helianthella quinruenervis*

- ▶ Blooms later in season
- ▶ Good replacement for taller sunflowers
- ▶ Flowers a clear 'lemon' yellow
- ▶ Provides seeds for birds
- ▶ Tolerant of partial shade



Crested Prickly Poppy *Argemone polyanthemus*

- ▶ Marvelous white flowers
- ▶ Annual
- ▶ Good nectar plant
- ▶ Toxic. May cause contact dermatitis



Woodies

Fernbush *Chamaebatiaria millefolium*

- ▶ Desert species
- ▶ To 6 feet
- ▶ Aromatic foliage
- ▶ Seeds need light to germinate



Bigtooth maple *Acer grandidentatum*

- ▶ Good smaller tree
- ▶ Tolerant of most soils
- ▶ Very nice fall color



Fernbush *Chamaebatiaria millefolium*



Goji Berry *Lycium barbarum*

- ▶ Clambering vine/shrub (i.e. needs support)
- ▶ Fruit high in nutrient value
- ▶ Edible leaves



Bristlecone Pine *Pinus aristata*

- ▶ Long-lived tree
- ▶ Slow growing



Hands-on lab overview and directions for growing seeds at home



Propagating native seeds: Overview

- ▶ Native plants are smart! Propagating native plants starts with preparing the seeds for germination. This can be either or both:
 - ▶ Scarification: Nick with razor blade or rub with sandpaper
 - ▶ Stratification: Cold treatment or 'false winter'. Moist or dry treatment and a fridge. Varies from 3-6 months to as long as 12 months.
- ▶ Seed planting depth = 2x seed size
- ▶ Some seeds may germinate as part of the germination process and develop a root. In this case:
 - ▶ Make a hole in the soil.
 - ▶ CAREFULLY place the germinating seed in the hole with the root down.
 - ▶ Gently push soil to close the hole.
- ▶ Keep soil moist and provide at least 18-hours of light.
- ▶ Transplant to garden or larger containers
 - ▶ Be sure roots are well developed.
 - ▶ "Harden" before transplanting outdoors.

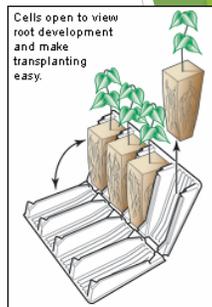


Resources



RooTrainer™ book planters

- ▶ RooTrainers allow plants to develop longer, stronger roots
- ▶ 72 planting cells in a 12-"book" frame



Strategies to create low water use landscapes

- ▶ Resources
 - ▶ Central Utah Water Conservation District
 - ▶ "Virtual Garden"
 - ▶ <http://gardens.cuwcd.com/gardendemo/>
 - ▶ Jordan Water Conservancy District
 - ▶ <http://www.slowtheflow.org/tips/landscape.aspx>
 - ▶ Plant Select
 - ▶ <http://plantselect.org/>
 - ▶ (was www.ext.colostate.edu/psel/index.html)
 - ▶ Water-Wise Plants
 - ▶ <http://www.waterwiseplants.utah.gov/>
 - ▶ Utah Native Plants
 - ▶ <http://findnativeplants.com/southwest/utah-native-plants/>

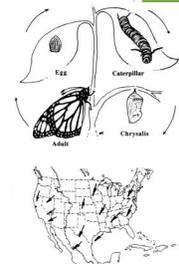
Growing medium mix

- ▶ Native plants should have a light soil mix
 - ▶ High in sand, perlite, vermiculite, turface, etc.
 - ▶ Our 2008 choice is "Sunshine Mix 4"
 - ▶ Canadian Sphagnum peat moss, coarse grade perlite, gypsum, Dolomitic lime
 - ▶ Refer to "Susan's Mix" in the handout on-line for another option

Creating a butterfly garden

The basics:

1. Host plant: Purpose is to draw the adult butterfly to lay eggs and host caterpillars.
2. Water source: Shallow water for adult butterflies to drink from. Can be a water dish with rocks or a muddy area with rocks.
3. Nectar plants: For example, zinnias, butterfly bush, salvias. Plants for a butterfly and pollinator garden: <http://monarchwatch.org/garden/plant-list-monarchwatch.pdf>
4. Bright, sunny location.



Monarch metamorphosis and migration map

Butterfly gardening is one of the few gardening types that if you build it, they will come! ☺

Questions about butterfly gardening?
Call Rose at 1-512-653-9687.

Gardener opportunities in Cache Valley

Find out more through:

- ▶ Cache Valley Master Gardeners
 - ▶ <http://extension.usu.edu/cachemg/> - OR -
 - ▶ <https://www.facebook.com/pages/Master-Gardeners-of-Cache-Valley/114215648610370>
- ▶ Utah Native Plant Society
 - ▶ <https://www.facebook.com/groups/209710835327/>

Instructions for the workshop area

Workshop:

- ▶ **Labeling and seed location:** All seeds are labeled and on the center table.
- ▶ **Limited seeds:** Some seeds are limited. Please be respectful of the numbers to ensure all seeds can be evenly distributed.
- ▶ **Take seeds to your RooTrainer:** Seeds are on the center table. Take seeds to your RooTrainer.
- ▶ **Get dirty:** RooTrainers are packed tight. Don't be afraid to make a bit of a mess (remove dirt and put back in) to ensure your seeds are planted properly.
- ▶ **Ask questions:** There are Master Gardener volunteers available if you have questions or need assistance.

Seeds:

- ▶ **Planting depth:** 2x seed size
- ▶ **Germinating?** Some seeds may be germinating already and will have a root showing. What you need to do:
 - ▶ Make a hole in the soil.
 - ▶ CAREFULLY pick up a germinating seed and place it into the hole with the root down into the hole. CAREFUL not to break the root.
 - ▶ Gently push soil to close the hole.

Have Fun!

Now to the fun!



Plant
Fact
Sheets



FACT SHEET: *Acer grandidentatum*

Common Name: Bigtooth Maple

Other Common Names: Wasatch Maple, Canyon Maple

Scientific Name: *Acer grandidentatum*

Family: Aceraceae

Distribution: Washington to Texas and Northern Mexico

Habitat: Sheltered canyons, valleys, streambanks;

Habit: Small to medium sized deciduous tree

Height: to 15 ft.

Spread: to 15 ft.

Bark: dark brown to gray, with narrow fissures and flat ridges. Easily damaged

Foliage Color: green, turning yellow to red in fall

Leaves: 6-12 cm long, with 3 major teeth (lobes) with 3-5 smaller ones

Flower color: yellow-green

Flower Form: clustered, lacking petals, pendant

Flowering Season: mid spring, appearing with emerging leaves

Fruit: winged, wings to 3 cm long; often tinged pink when young



Cultural Requirements: Prefers well drained limestone soils, but is adaptable to most circumstances. Tolerant of light irrigation.

Propagation: Seeds – 60 day cool moist stratification. Can be direct sown in the fall.

Uses and Notes of Interest: Initially slow growing. Good fall color. Relatively pest free. Closely related to the Sugar Maple, but few trees go large enough to handle tapping for the sap.

FACT SHEET: *Agastache urticifolia*

Common Name: Nettleleaf Hyssop

Other Common Names: Giant Hyssop,
Horse Nettle

Scientific Name: *Agastache urticifolia*

Family: Lamiaceae (Mint Family)

Distribution: West of the Rockies

Habitat: Primarily open slopes in woods,
but may be found elsewhere

Habit: Perennial herb to subshrub

Height: to 6 ft.

Spread: to 4 ft.

Foliage Color: silvery green

Leaves: Mostly triangular, paired on
stems, edges serrate, aromatic

Flower color: Pale pink to lavender

Flower Form: In dense circles crowded
into tight terminal spikes

Flowering Season: Summer



© St. Mary's College of California

Cultural Requirements: Prefers well
drained soil. Prefers partial shade but
tolerant of full sun. Likes an occasional watering in late summer.

Propagation: Seeds – 30-45 day cool moist stratification. Basal cuttings of shoots
taken in early spring. Seedlings may need to be held for fall planting.

Uses and Notes of Interest: Leaves and flowers are edible and can be used for teas.
Leaves used medicinally by Native Americans. Aromatic. Good butterfly/bee plant.

FACT SHEET: *Andropogon gerardi*

Common Name: Big Bluestem

Other Common Names: Turkeyfoot,
Bluejoint, Tall Bluestem

Scientific Name: *Andropogon gerardi*

Family: Poaceae Tribe: Andropogoneae

Distribution: Arizona to Maine, Montana to Florida

Habitat: Grasslands, savannas and woodlands

Habit: Dense clumping, long-lived bunchgrass, formal upright appearance

Height: to 3 m (9.8 ft.) – flowering stems

Spread: clumping, forming a tough sod with age

Foliage Color: Green to blue-green becoming russet in fall

Leaves: broad, flat. Upright to arching

Flower Color: often red/orange streaked in late summer/ fall

Flower Form: upright often with 3 branches, turkey-foot appearing

Flowering Season: July - September

Fruit: Seed heads have 3 spike-like projections

Fruit Season: late summer/ fall

Cultural Requirements:

Full sun to part shade; moist fertile soil; very drought tolerant once established. Thrives in both sandy and heavy soils.

Propagation:

Seed: No pretreatment apparently needed

Vegetative: Clump division

Caution: Needs evenly moist soils and warmth to germinate

Uses and Notes of Interest:

Intolerant of heavy grazing, it has been referred to as “ice cream for cows”. It is the state grass of both Illinois and Missouri.



FACT SHEET: *Argemone polyanthemus*

Common Name: Crested Pricklypoppy

Other Common Names: Prickly Poppy, Bluestem/ White prickly poppy

Scientific Name: *Argemone polyanthemus*

Family: Papaveraceae (Poppy Family)

Distribution: Plains and Mountain states

Habitat: Foothills, prairies, pastures

Habit: Annual branched herb, armed with slender yellow prickles

Height: to 3 ft.

Spread: to 2 ft.

Foliage Color: blue-green

Leaves: elongated with prickle tipped lobes

Flower color: White with yellow centers, sometimes with yellow, pinkish or lavender infused petals

Flower Form: large single flower at end of stem to 5 in. across

Flowering Season: late spring/ early summer, may continue bloom with dead-heading



Cultural Requirements: Prefers well drained soil.

Propagation: Seeds – 60 day cool moist stratification. Can be direct sown in the fall.

Uses and Notes of Interest: Has yellow sap. Contains toxins that, with the prickles keeps most animals from eating it. Spines contain a substance that is irritating to the skin. Good nectar plant for bees/ butterflies.

FACT SHEET: *Asclepias asperula*

Common Name:

Elk Horn Milkweed

Other Common Names:

Spider milkweed, Green-flowered milkweed, Spider antelope milkweed

Scientific Name: *Asclepias asperula*

Family: *Asclepiadaceae*

Distribution: Central Kansas to Texas and Mexico, west to Southern Idaho to SE California

Habitat: Meadows, along roadways, well-drained caliche, loam, sandy, clay

Habit: Perennial, upright or sprawling, stems densely covered with minute hairs



Height: 1-2 ft. tall,

Spread: 1-3 ft.

Foliage Color: green

Leaves: 4-8 inches long, narrow and irregularly grouped, often folded lengthwise

Flower Color: White, Green

Flower Form: Robust flower heads

Flowering Season: March-October

Fruit: the common name is derived from the curved form of the seed pods.

Cultural Requirements: Full sun, dry to moist soils. Prefers rocky or sandy soils of prairies, pastures, plains, hillsides, brush lands and woodlands

Propagation: Seeds—Root cuttings can be taken in fall or early spring. Seeds may be sown outside in late fall or the following spring. Germination of spring-planted seeds is enhanced by moist stratification.

Uses and Notes of Interest: Attractive to bees, butterflies and/or birds.

Warning: This plant is reported to be toxic to animals, and like other plants in the genus *Asclepias* is probably also poisonous to humans. The sap of some causes skin irritation in humans. Sensitivity to a toxin varies with a person's age, weight, physical condition, and individual susceptibility. Children are most vulnerable because of their curiosity and small size. Toxicity can vary in a plant according to season, the plant's different parts, and its stage of growth; and plants can absorb toxic substances, such as herbicides, pesticides, and pollutants from the water, air, and soil.

FACT SHEET: *Asclepias syriaca*

Common Name:

Common Milkweed

Other Common Names: Butterfly flower, Virginia-silk, silky swallowwort,

Scientific Name: *Asclepias syriaca*

Family: *Apocynaceae*

Distribution: Native to most of eastern US and Canada.

* Zones 4a-9b

Habitat: grows in sandy, clayey or rocky calcareous soils.

Habit: Herbaceous perennial, upright or sprawling, stems densely covered with minute hairs



Height: 3-5 ft. tall

Spread: 1.5 - 3 ft.

Foliage Color: dark green with lighter green undersides

Leaves: large thick leaves sustain more monarchs

Flower Color: pink, mauve, white

Flower Form: showy, fragrant flower heads

Flowering Season: May to August

Fruit: Flowers give way to prominent, warty seed pods (2-4" long), which split open when ripe releasing their numerous silky-tailed seeds for dispersal by the wind. Seedpods are valued in dried flower arrangements.

Cultural Requirements: Full sun, Drought tolerant, average dry to medium well-drained soils.

Propagation: Easily grown from seed, and will self-seed in the landscape if seedpods are not removed prior to splitting open. Can spread somewhat rapidly by rhizomes. Often form extensive colonies in the wild.

Uses and Notes of Interest: This milkweed also attracts buckeyes, bumblebees, eastern tiger swallowtails, honeybees, hummingbird moths, painted lady butterflies, red admirals, and spicebush swallowtails. If you don't want additional seedlings next spring, simply cut off the seedpods before they pop open **or** bind them shut with twist ties or rubber bands if you want to collect common milkweed seeds

Warning: Milkweed may be toxic when taken internally, without sufficient preparation.

Ethno botanic: People have used milkweed for fiber, food, and medicine all over the United States and southern Canada. Milkweeds supply tough fibers for making cords and ropes, and for weaving a coarse cloth. Milkweed stems are collected after the stalks senesce in late fall-early winter. The dried stalks are split open to release the fibers; milkweed fibers are sometimes mixed with fibers of Indian hemp (*Apocynum cannabinum*).

FACT SHEET: *Asclepias speciosa*

Common Name: Showy Milkweed

Other Common Names: California Showy milkweed, Common Milkweed

Scientific Name: *Asclepias speciosa*

Family: Apocynaceae (formerly Asclepiadaceae)

Distribution: Most of NA west of the Mississippi River

Habitat: Sunny and dry to moist areas. Preferring prairies, roadsides, meadows and old fields

Habit: upright stems with branches forming nice clumps

Height: to 5 ft.

Spread: ~3 ft.

Foliage Color: green to blue-tinged

Leaves: Banana-like, pointed, velvety textured

Flower Color: pink to purple (sometimes nearly white)

Flower Form: star-shaped in umbels

Flowering Season: mid-summer to early fall



Cultural Requirements: Tolerant of dry soils and clay. Dislikes disturbance. Needs at least 2 plants nearby for pollination. Give only minimal supplemental water during long dry spells once established.

Propagation: Seeds – cool moist stratification for 90 days; Root cuttings – taken in late fall or early spring.

Uses and Notes of Interest: Most successful milkweed plant for Monarch Butterflies. Large, deep, running roots. May be difficult to eradicate in areas you don't want it. Native Americans used fibers from the stems for rope, baskets and nets. Poisonous if ingested.

FACT SHEET: *Bouteloua gracilis*

Common Name: Blue Grama

Other Common Names:

Scientific Name: *Bouteloua gracilis*

Family: Poaceae

Distribution: Widespread over the Western US

Habitat: grasslands

Habit: bunching slowly forming a turf

Height: to 2 ft.

Spread: to 2 feet+

Foliage Color: green with a bluish tint

Leaves: grass

Flower Color: na

Flower Form: in flag-like spikes resembling eyebrows

Flowering Season: July - September

Cultural Requirements: Prefers well-drained soils. Does not tolerate heavy watering, dense shade or acid soils.

Propagation: Seeds – 0 - 30 day moist stratification. Plant seeds to ¼ in. deep.

Uses and Notes of Interest: Good for erosion control when mixed with other grasses. A good low maintenance turf grass especially in drought prone areas. A warm-season grass, it will be slow to green up in the spring.



© Larry Allain

FACT SHEET: *Cercocarpus montanus*

Text by: Michael Piep, USU - Intermountain Herbarium

Common Name:

Alderleaf Mountain
Mahogany

Other Common

Names: True Mountain
Mahogany, Birchleaf
Mountain Mahogany,
Tallowbrush,
Deerbrush, Lintisco

Scientific Name:

Cercocarpus montanus

Etymology:

Cercocarpus means
hairy tail, referring to
the fruit

Family: Rosaceae

Distribution: Western
North America,

Habitat: Semi-desert,
foothills, montane. Shrublands, canyons, woodlands.

Habit: Shrub or small tree, deciduous, multi-stemmed

Height: to 20 ft.

Spread: ~15 ft.

Foliage Color: dark green (upper surface) fuzzy silver on lower surface; yellow in fall

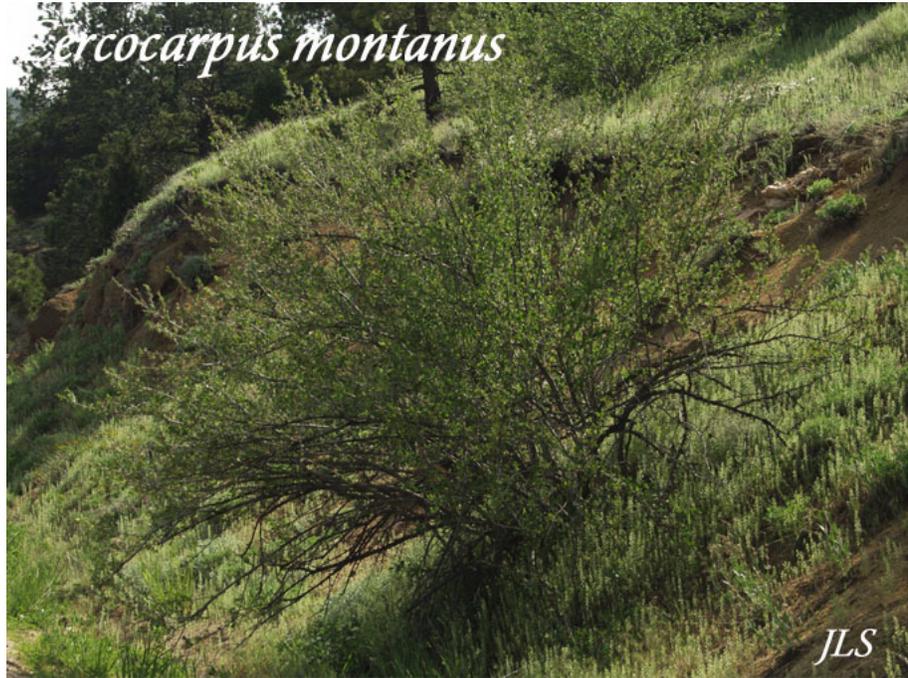
Leaves: oval-shaped, rather thick, toothed on margins, 3-10 prominent veins

Flower Color: yellowish

Flower Form: tubular, lacking petals, clustered, not showy individually but sweet smelling

Flowering Season: April – June, as leaves emerge

Fruit: dry brownish achenes, silvery white with long feathery extension.



Cultural Requirements: Full sun to part shade, somewhat shade intolerant. Well-drained or dry soils. Intolerant of heavy clay soils.

Propagation: Seeds – cold, moist stratification for 2-12 weeks; Vegetative – root sprouts. Slow to establish, and slow growing initially.

Uses and Notes of Interest: Reflective nature of hairs on the seeds give the plant a frosted appearance in heavy fruiting years. Wood used as tools and weapons, bark used to make a reddish-brown dye.

FACT SHEET: Fernbush

Common Name: Fernbush

Other Common Names: Tansy Bush,
Desert Sweet

Scientific Name: *Chamaebatiaria
millefolium*

Family: Rose Family (Rosaceae)

Distribution: Throughout the Great Basin

Habitat: usually cliffs and rocky slopes in
desert shrub, sagebrush steppe, pinyon -
juniper, mountain brush, and ponderosa
pine communities, often on basalt

Habit: shrub

Height: 3-6'

Spread: 3-6'



Foliage Color: Bright green

Leaves: Deeply and finely divided, fernlike, in clusters at the branch tips, slightly sticky,
about 2- 3" long

Flower Color: White with yellow centers

Flower Form: Flowers ca. 1/2" across, roselike with five separate petals and numerous
yellow stamens, borne in branched panicles at the branch tips

Flowering Season: Mid to late summer

Fruit: Tiny, reddish, sliver-like seeds

Fruit Season: Late summer to fall

Cultural Requirements: Full sun to partial shade and well-drained soils; fully
coldhardy, drought hardy. Fernbush grows rapidly, often flowering its first year. The
plants are long-lived in cultivation and have few problems

Propagation: Fernbush seeds only live a couple of years in storage. Press the tiny
seeds into the soil surface, as they require light to germinate. Small seedlings will
appear within a week or so, but they will grow rapidly and look like miniature versions of
their mothers within two or three months.

Uses and Notes of Interest:

Fernbush is found dry mountainous areas of the intermountain west. For example,
there's a great stand of Fernbush at Idaho's Craters of the Moon National Monument.
Butterflies are attracted to the fragrant white flowers that bloom in mid summer.
Fernbush does very well here in Logan.

Text courtesy D. Wallace and the Utah Native Plant Society, www.unps.org, 2013
Illustration from *Desert Plants of Utah*, <http://www.ut.nrcs.usda.gov/despub.pdf>

FACT SHEET: *Cleome serrulata*

Common Name: Rocky Mountain Beeplant

Other Common Names: Spider plant, beeweed, stinkweed

Scientific Name: *Cleome serrulata*

Family: Capparaceae

Distribution: Washington to Nebraska, south to California and New Mexico

Habitat: Mixed desert shrub, pinyon-juniper and ponderosa pine

Habit: Upright annual

Height: 3-4 feet

Spread: 2 foot

Foliage Color: Green

Leaves: Three leaflets, about 3/4 to 2 1/2 inches long.

Flower Color: Pink-purple

Flower Form: Large, fluffy clusters of small flowers with exerted stamens

Flowering Season: Summer to fall



Cultural Requirements: Prefers full sun and well-drained soil. Low to moderate water needs.

Propagation: Seeds require 6-8 weeks cold, moist chilling, and they will germinate in chilling.

Uses and Notes of Interest: This is an attractive plant, with lacy purple flowers and long, narrow seed-filled pods. Found in much of the west and throughout much of Utah. Native Americans ate the seeds and greens for food, and prehistoric Indians of the southwest apparently grew it around their pueblos. Lewis and Clark collected Rocky Mountain Beeplant in 1804 in what is now South Dakota, and it may be found in commercial wildflower seed mixes.

FACT SHEET: *Elymus glaucus*

Common Name: Blue Wildrye

Other Common Names:

Scientific Name: *Elymus glaucus*

Family: Poaceae

Distribution: Widespread over the Western NA

Habitat: Open areas esp. grasslands

Habit: Perennial bunch grass

Height: to 5 ft.

Spread: to 4 feet+

Foliage Color: green with a bluish tint

Leaves: grass

Flower Color: na

Flower Form: in terminal spikes

Flowering Season: June - August



Cultural Requirements: Prefers moist well-drained soils. Drought tolerant when established

Propagation: Seeds – 0 - 30 day moist stratification. Plant seeds to ¼ in. deep.

Uses and Notes of Interest: Good for erosion control when mixed with other grasses. Provides excellent wildlife habitat. Very intolerant of heavy grazing.

FACT SHEET: Festuca idahoensis

Common Name: Idaho Fescue
Other Common Names: Blue Bunchgrass

Scientific Name: Festuca idahoensis
Family: Poaceae

Distribution: Western North America

Habitat: Grasslands to forests

Habit: Dense clumping, long-lived bunchgrass, formal upright appearance

Height: to 1 (3.3 ft.) – flowering stems

Spread: 0.75 m (2.5 ft.)

Foliage Color: Green to blue-green

Leaves: thin, fine

Flower Color: na

Flower Form: na

Flowering Season: Spring

Fruit: na

Fruit Season: summer

Cultural Requirements:

Not picky about soil, but doesn't like rich, moist soils. Drought tolerant, but likes a good soaking at least once a month once established

Propagation:

Seed: may benefit from a cool moist stratification

Vegetative: Clump division

Caution: Slow to establish, takes 2-3 weeks to germinate

Uses and Notes of Interest:

Readily self-seeds. Grows best with about 15 inches of moisture annually. A number of cultivars are now available.



FACT SHEET: *Helianthella quinquenervis*

Common Name: Aspen
Sunflower

Other Common Names: 5-
nerve *Helianthella*

Scientific Name: *Helianthella*
quinquenervis

Family: Asteraceae (Daisy
Family)

Distribution: Mountain states

Habitat: Mountainous areas,
usually with/ under aspen.
Woodlands and stream sides

Habit: Perennial herb

Height: to 4(5) ft.

Spread: to 2.5(3) ft.

Foliage Color: green, blushes
red in fall

Leaves: strap-like with 3-5 prominent veins running the length

Flower color: clear (lemon) yellow

Flower Form: large single flower at end of stem to 4 in. across, nodding

Flowering Season: July – September



Cultural Requirements: Prefers well drained soil. Tolerant of light irrigation.

Propagation: Seeds – 60 day cool moist stratification. Can be direct sown in the fall.

Uses and Notes of Interest: Amazingly floriferous and versatile. Heads can become heavy with seeds, an excellent native bird seed source. Makes an excellent cut flower.

FACT SHEET: *Ipomoea leptophylla*

Common Name: Bush Morning-glory

Other Common Names:

Man root

Scientific Name:

Ipomoea leptophylla

Family: Convolvulaceae

Distribution: Montana to Texas

Habitat: Sand hills, short-grass prairie

Habit: subshrub, forming large clumps

Height: to 6 ft.

Spread: to 4 ft.

Foliage Color: silvery green

Leaves: lanceolate, paired on stems, edges serrate

Flower Color: Pink to rose/mauve

Flower Form: clustered on elongated stems above bush

Flowering Season: (May)June – September(October)



Cultural Requirements: Prefers lighter soil, avoid heavy clay. May need winter protection until established. Avoid moving, so select location wisely. Needs occasional watering in mid to late summer.

Propagation: Seeds – 30-60 day moist stratification. Plant to ¼ in. deep. Root cuttings/tubers

Uses and Notes of Interest: Seed is poisonous if ingested. Roots edible when cooked.

FACT SHEET: *Iris missouriensis*

Common Name: Rocky Mountain Iris

Other Common Names: Western Blue Flag, Missouri Flag

Scientific Name: *Iris missouriensis*

Family: Iridaceae

Distribution: Western North America

Habitat: Mountainous streambanks, alpine and wet (often seasonally) meadows

Habit: Rhizomatous perennial

Height: to 50 cm.

Spread: to 5 ft.

Foliage Color: green

Leaves: linear, basal, 5-10 mm wide to 40 cm tall

Flower color: light to dark blue, reflexed sepals often lined with purple

Flower Form: 1-2 flowers at end of a leafless scape

Flowering Season: May-June



Cultural Requirements: Moist soils until bloom. Plant may go dormant with drought in mid-late summer.

Propagation: Seeds – 90-120 day cool moist stratification. Can be direct sown in the fall. Very slow to germinate and establish. Rhizome divisions taken in early spring, late fall after dormancy.

Uses and Notes of Interest: Roasted seeds were once used as a coffee substitute. Roots can cause vomiting. Used by various native tribes medicinally. Can form large patches in low spots where moisture collects. Oddly it seems to be absent from most of the Wasatch Front.

FACT SHEET: *Elymus cinereus*

Common Name: Basin Wildrye

Other Common Name: Great Basin Wildrye

Scientific Name: *Elymus cinereus*

Synonyms: *Leymus cinereus*

Family: Grass Family (Poaceae)

Distribution: common and widely distributed in the Intermountain West

Habitat: valley streamside, foothill and middle montane habitats

Habit: perennial bunchgrass

Height: 3-7'

Spread: 24'

Foliage Color: pale green

Leaves: grass leaves to 0.5" wide and 2' long

Flower Color: green turning straw-colored

Flower Form: flowers in a dense, elongate terminal spike

Flowering Season: mid to late summer



Cultural Requirements: Prefers full sun in rich to well-drained soils. Plants grow more quickly in fertile soils or with added fertilizer. Fully cold-hardy. Drought hardy (i.e., needs no supplemental water after establishment on the Wasatch Front), but responds well to extra watering.

Culture: Readily grown from seed. Seeds are nondormant but relatively slow-germinating. May be direct-seeded in late fall. Plants are slow-growing especially at first, and require at least two years to flower when spring-planted as container stock.

Uses and Notes of Interest: This handsome, statuesque bunchgrass was much more abundant at the time of settlement than it is now. This is the grass that "came up to the horses' bellies" or "hid horse and rider". Meadow grazing, haying, and urban development have eliminated most valley populations in northern Utah. Basin wildrye was an important grain crop for native people, who knew how to harvest it sustainably. It makes a striking specimen or back border plant, especially when set against a wooden fence. Long-lived, the plants will increase in size and grandeur each year. Seed is readily hand-stripped from the stalks in late summer after the heads turn straw-colored.

FACT SHEET: *Linum lewisii*

Common Name: Wild Blue Flax

Other Common Names: Lewis Flax, Prairie Flax

Scientific Name: *Linum lewisii*

Family: Linaceae

Distribution: Northern and Western North America, introduced elsewhere

Habitat: Mountainous areas, foothills, valley floors

Habit: Perennial herb, usually short lived. Often becoming woody at the base with age

Height: to 3 ft.

Spread: to 2 ft.

Foliage Color: green

Leaves: Linear, small

Flower color: pale blue often with darker veins in the petals, sometimes white

Flower Form: clustered in cymes or racemes at the terminal end of the stem, nodding

Flowering Season: May to July



Cultural Requirements: Prefers well drained soil. Tolerant of light irrigation.

Propagation: Seeds – 60 day cool moist stratification. Can be direct sown in the fall.

Uses and Notes of Interest: Leaves and stems stay green long into growing season. Petals are not firmly attached – it does not make a good cut flower. Our seeds 'Maple Grove' selection originated in Maple grove, Utah. Will naturalize well with grasses.

FACT SHEET: *Lycium barbarum*

Common Name: Goji

Other Common Names: Wolfberry, Goji Berry

Scientific Name: *Lycium barbarum*

Family: Solanaceae

Distribution: Widespread, native to SW Europe and Asia

Habitat: Forest, sagebrush steppe, woodlands

Habit: Many branched, spreading to erect woody shrub

Height: to 3 m (10 ft.)

Spread: same

Foliage Color: Dark green, yellowish in fall

Leaves: Alternate or in bundles, lance-shaped to 7 cm long

Flower Color: lavender to light purple



Flower Form: bell-shaped to tubular, often in groups of three in leaf axils

Flowering Season: late spring thru summer

Fruit: berries, ellipsoid 1-2 cm long,

Fruit Season: July -October

Cultural Requirements:

Not picky about soil. Fully drought tolerant, it benefits from an occasional deep watering. Prefers full sun, but may benefit from light afternoon shade. Plants will benefit from pruning. Will not tolerate wet or soggy conditions.

Propagation:

Seed: No pretreatment needed. Germination can take up to 6 weeks

Vegetative: Cuttings – hard wood (winter) and softwood (summer). Laying (fall)

Uses and Notes of Interest:

Young shoots and leaves are used as a leafy vegetable. Fruit can be eaten fresh, but is mostly consumed after drying. Fried berries are traditionally cooked. Berries can also be made into wine & beer.

Those on Warfarin should not consume excessive amounts of Goji as it inhibits metabolism of the drug.

Can be container grown, with winter protection.

Uses and Notes of Interest, cont.:

Goji typically will begin flowering the second year, with maximum fruit production in the 4th or 5th year.

Fact Sheet: Missouri Evening Primrose

Common Name: Missouri evening primrose

Other Common Names: Bigfruit evening primrose

Scientific Name: *Oenothera macrocarpa*

Family: Onagraceae

Distribution: Native from Kansas to Texas

Habitat: Dry prairie

Habit: Perennial

Height: 1 foot

Spread: 1-2 feet



Foliage Color: Bright green

Leaves: Long narrow basal leaves

Flower Color: Yellow

Flower Form: Up to 4 inches across, 4-petals and a 4-lobed stigma

Flowering Season: Summer to fall

Cultural Requirements: Full sun and well-drained soil. Low to moderate water needs.

Propagation: Seeds germinate about a week after direct seeding.

Uses and Notes of Interest: “A beautiful plant that should be more widely grown in Utah”. A native of the southern Great Plains, the Missouri Evening Primrose is a great flower for hard-to-water places like parking strips, rock gardens, or other sunny and dry locations. It blooms in the evening with large four-petaled, fragrant, clear yellow flowers. The flowers wilt the following day, but a healthy plant will produce new blooms each evening for much of the summer. The sprawling stems have soft, velvety, 5-inch leaves, and the flowers ripen to large winged, seed-filled pods.

FACT SHEET: *Penstemon angustifolius*

Common Name: Broadbeard Penstemon

Other Common Names: Broadbeard
Beardtongue, Narrowleaf Beardtongue

Scientific Name: *Penstemon angustifolius*

Family: Plantaginaceae (Scrophulariaceae)

Distribution: Montana to Arizona and Oklahoma

Habitat: Grasslands, sandy slopes, open
shrublands

Habit: Perennial subshrub/herb

Height: to 3 ft.

Spread: to 18 in.

Foliage Color: green to blue-green

Leaves: lanceolate, paired on stems, edges
serrate

Flower Color: bright blue to lavender-blue, white

Flower Form: clustered on elongated stems
above bush

Flowering Season: June



Cultural Requirements: Full sun. Prefers drier, rocky sites. Water deeply, but infrequently once established. Does not do well in heavy soils.

Propagation: Seeds – 30 day moist stratification. Plant on soil surface and cover with a thin layer of sand. Maybe cultivated by root or stems cuttings.

Uses and Notes of Interest: The Lakota people used the flowers to make a blue dye for painting moccasins. “*Angustifolius*” means narrow leaves. Preferred by hummingbirds.

FACT SHEET: *Penstemon cyananthus*

Common Name: Wasatch Penstemon

Other Common Names: Wasatch Beardtongue; Platte River Penstemon

Scientific

Name: *Penstemon cyananthus*

Family: Plantaginaceae (Scrophulariaceae)

Distribution: Montana to Utah

Habitat: Foothills to aspen parklands and mountain meadows

Habit: Perennial herb

Height: to 3 ft.

Spread: to 18 in.

Foliage Color: green to gray-green

Leaves: lanceolate, paired on stems, edges serrate

Flower Color: bright blue to blue-violet

Flower Form: Bilaterally symmetrical flowers in rings along the upper portion of the stem

Flowering Season: late April to early June



Cultural Requirements: Full sun. Prefers drier, rocky sites. Water deeply, but infrequently once established. Does not do well in wet heavy soils.

Propagation: Seeds – 30 - 90 day moist stratification. Plant on soil surface and cover with a thin layer of sand. Maybe cultivated by softwood cuttings in summer from non-flowering shoots.

Uses and Notes of Interest: The royal blue trumpets of this penstemon make it one of the most desirable of our native penstemon species. Larval host for *Euphydryas anicia* (*Anicia* Checkerspot butterfly).

FACT SHEET: *Penstemon eatonii*

Common Name: Firecracker
Penstemon

Other Common Names: Easton's
Penstemon, Firecracker Beardtongue

Scientific Name: *Penstemon eatonii*

Family: Plantaginaceae
(Scrophulariaceae)

Distribution: California to Colorado

Habitat: Semi-desert, foothills,
shrublands

Habit: Perennial subshrub/herb

Height: to 4 ft.

Spread: to 3 ft.

Foliage Color: green to gray-green

Leaves: lanceolate, paired on stems,
edges serrate

Flower Color: scarlet red rarely cream

Flower Form: nearly tubular, pendant,
1-1.5 in. long, paired along a single
side of stem in a terminal spike

Flowering Season: Late spring/ early
summer



Cultural Requirements: Full sun.
Prefers drier, rocky sites. Water deeply,
but infrequently once established. Does
not do well in wet heavy soils. May
require upwards of 3 years to flower.

Propagation: Seeds – 30 day moist stratification. Plant on soil surface and cover with a thin layer of sand. Maybe cultivated by root cuttings.

Uses and Notes of Interest: Firecracker penstemon is one of the outstandingly beautiful wildflowers of Utah. The bright scarlet flowers occur in profusion, with individual plants bearing up to thirty flowering stalks. Though specimen plants can be very showy, massed plantings are most effective. Hummingbirds will stake territories over these firecracker patches and risk all to defend their prime nectar source. The plants flower synchronously, but bloom time is long, up to six weeks, as flowers further up the stalk continue to open. It is best to clip penstemon stalks while they are still very green. Otherwise they will volunteer freely, in your compost pile and everywhere else. Clipping may extend the life of the plant as well. To collect seed, let the stalks dry, and strip the dried capsules.

FACT SHEET: *Penstemon venustus*

Common Name: Venus Penstemon

Other Common Names: Blue Mountain Penstemon, Elegant Penstemon

Scientific Name: *Penstemon venustus*

Family: Plantaginaceae (Scrophulariaceae)

Distribution: Pacific Northwest to Utah and California

Habitat: Dry rocky slopes and shrub-steppe

Habit: subshrub, forming large clumps

Height: to 3 ft..

Spread: to 18 in.

Foliage Color: green

Leaves: lanceolate, paired on stems, edges serrate

Flower Color: bright blue to lavender-blue

Flower Form: clustered on elongated stems above bush

Flowering Season: June



Cultural Requirements: Full sun. Prefers drier, rocky sites. Water deeply, but infrequently once established.

Propagation: Seeds – 30-60 day moist stratification. Plant on soil surface and cover with a thin layer of sand.

Uses and Notes of Interest: Venustus is latin for “beautiful” or “graceful”. In Utah it is known only from Duchesne County. Best when used in groups. Cut dead stems back to 2 inches in late winter.

FACT SHEET: *Pinus aristata*

Common Name: Bristlecone Pine

Other Common Names: Rky. Mtn. Bristlecone Pine, Colorado Bristlecone Pine

Scientific Name: *Pinus aristata*

Family: Pinaceae

Distribution: Colorado, Arizona & New Mexico

Habitat: high altitude, subalpine mountain areas

Habit: Very long lived tree

Height: to 15 ft.

Spread: to 15 ft.

Foliage Color: green

Leaves: needles, in clumps of 5, to 4 cm long

Flower color: na

Flower Form: na

Flowering Season: na

Cones: to 4 cm long, purplish when young, maturing at about 16 months to yellow-buff. Cone scales with a bristle-like spine to 5 mm long at the tip



Cultural Requirements: Prefers well drained soil. Tolerant of light irrigation.

Propagation: Seeds – 60 day cool moist stratification. Can be direct sown in the fall.

Uses and Notes of Interest: A long lived species, the oldest known tree is 2400+ years. It is prone to White Pine Blister Rust.

FACT SHEET: *Schizachyrium scoparium*

Common Name: Little Bluestem

Other Common Names: Beard Grass,
Popotillo

Scientific Name: *Schizachyrium scoparium*

Family: Poaceae Tribe: Andropogoneae

Distribution: Most of the continental U.S. except Nevada and Oregon. Planted elsewhere.

Habitat: Grasslands, savannas and woodlands

Habit: Dense clumping, long-lived bunchgrass, formal upright appearance

Height: to 5 ft. – flowering stems

Spread: clumping, forming a tough sod with age

Foliage Color: Bluish-green to grayish green, becoming coppery to orange in fall

Leaves: broad, flat. Upright to arching. Fine textured

Flower Color: often red/orange streaked in late summer/ fall

Flower Form: upright often with 3 branches, turkey-foot appearing

Flowering Season: July - September

Fruit: Seeds are fuzzy white at maturity

Fruit Season: fall



Cultural Requirements:

Full sun to part shade; moist fertile soil; very drought tolerant once established. Thrives in both sandy and heavy soils. Needs to be cut low to the ground in early spring prior to new growth starting. Intolerant of wetland soils.

Propagation:

Seed: No pretreatment apparently needed

Vegetative: Clump division

Caution: Needs evenly moist soils and warmth to germinate

Uses and Notes of Interest:

Fall colored stems make for great winter interest (indoors and out). It is the official state grass of Nebraska and Kansas. A number of cultivars are now available. Butterfly larvae host and provides nesting material/structure for native bees.

FACT SHEET: *Stanleya pinnata*

Common Name: Prince's Plume

Other Common Names: Desert Prince's Plume

Scientific Name: *Stanleya pinnata*

Family: Brassicaceae (CabbageFamily)

Distribution: Western United States

Habitat: Many open habitats including sagebrush and prairie areas

Habit: Perennial herb to subshrub

Height: to 3(5) ft.

Spread: to 2 ft.

Foliage Color: bluish green

Leaves: long lance-shaped blades with several long narrow lobes

Flower color: Yellow

Flower Form: In dense, tight terminal spikes

Flowering Season: Early Summer to early Fall

Fruit: long, curving siliques to 8 cm long



Cultural Requirements: Prefers well drained alkali- and gypsum-rich soils.

Propagation: Seeds – pretreatment not always needed. Seedlings may need to be held for fall planting.

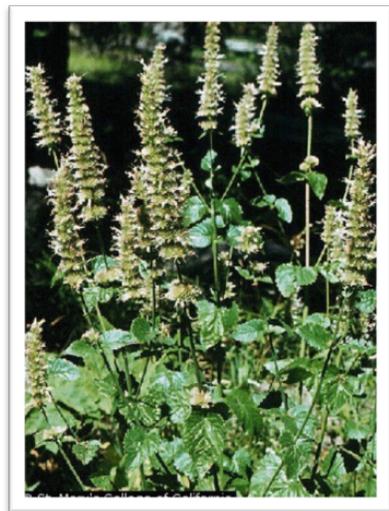
Uses and Notes of Interest: Plants accumulates selenium in its tissues, making the plant toxic to livestock. The slender wands of flowers are reminiscent of plume feathers.



Asclepias syriaca — Common Milkweed



Asclepias asperula — Elk Horn Milkweed



Agastache urticifolia—
Nettleleaf Hyssop



Andropogon gerardi—
Big Bluestem



Argemone Polyanthemos—
Crested Picklypoppy



Acer grandidentatum—
Bigtooth Maple



Asclepias speciosa
—Showy Milkweed

Bouteloua gracilis—Blue Grama



Fernbush



Cleome serrulata—Rocky Mountain Beeplant



Elymus glaucus—Blue Wildrye



Festuca idahoensis—Idaho Fescue

Helianthella quinquenervis—Aspen Sunflower



Ipomoea leptophylla—
Bush Morning-glory



Iris missouriensis
—Rocky Mountain Iris

Elymus cinereus—
Basin Wildrye



Linum lewisii—
Wild Blue Flax



Lycium barbarum—Goji
or Wolfberry

Evening Morning Glory



Penstemon angustifolius—
Broadbeard Penstemon

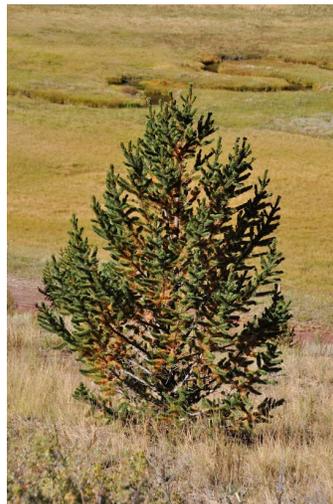


Penstemon cyananthus—
Wasatch Penstemon



Penstemon eatonii—
Firecracker Penstemon

Penstemon venustus—
Venus Penstemon



Pinus aristata—Bristlecone Pine

Stanleya pinnata—
Prince's Plume



Schizachyrium scoparium—
Little Bluestem



Resources

Water-wise & Utah Native Plants



Books and Journals

- **Water-wise: Native plants for intermountain landscapes**, Mee, Barnes, Kjelgren, et al.
Available at Extension office
- **Attracting Native pollinators**, Xerces Society. Website: xerces.org
- **Native plants for High-elevation Western Gardens**, Busco and Morin
- **Water-wise plants for sustainable gardens**, Ogden & Ogden
- **Xeriscaping**, Rumary
- **Native Plant Journal**
www.nativeplantnetwork.org

Nurseries

Cache Valley

- **Garden Gateway**: 3421 N Hwy 91, Hyde Park 435-881-2255
GardenGateway.net.
- **The Greenhouse**: 295 W 300 S, Logan. 435-752-7923
- **Freckle Farm**: 3915 N Hwy 91, Hyde Park. 435-563-2648
- **Fonnesbeck Greenhouse**: 214 N 100 W Mendon 435-752-1062

Outside Cache Valley

- **Alpine Gardens**: 1810 S Hwy 89, Perry 435-723-7748
<http://www.alpinegardensutah.com/>
- **Desert Nursery Perennial Farm**: 5750 California Ave, SLC
Perennialsforutah.com
- **High Mountain Nursery**: 271 W Bitterbrush Lane, Draper 888-832-1262
<http://highmtnnursery.com/>

- **Willard Bay Garden:** 7095 S Hwy 89, Willard
WillardBayGardens.com
Specializes in perennials with a wide array of plants growing so you can ‘see’ what they will look like in the ground.

Online Nurseries

- **Plant Select**
<http://plantselect.org/>
Plant Select® is a leading non-profit cultivator, distributor and educator of plants designed to thrive in the high plains and intermountain region. Driven by the belief that the *right plants in the right place matter* and that *tougher growing environments require smarter approaches*.
- **Native Plant Nurseries**
<http://forestry.usu.edu/htm/rural-forests/native-plant-nurseries>
List of native plant nurseries from the USU Extension office.
- **High Country Gardens**
www.highcountrygardens.com
Plants, products and information that support long-term ecological balance and builds and sustains the love of gardening. Plants are chosen for their hardiness, beauty and their support of habitat creation. Known for their xeric plant selection.

Cache Valley Gardener Resources

- **Cache Valley Master Gardeners**
CacheMG.org
Propagation workshops, fact sheets on native plants. Yearly Alternascapes tour. Volunteer opportunities through community events and our local Farmer’s Market. The Cache Valley Master Gardeners via the USU Extension is a great resource! There are classes ranging from seed selection to plant propagation to the Master Garden course. Learn more at *CacheMG.org*.
- **Intermountain Herbarium**
herbarium.usu.edu
Intermountainbiota.org
Located on the USU campus, the Herbarium’s mission is to: 1) Serve as a primary source of information on the flora and fungi of the Intermountain region, both native and introduced and, 2) foster increased understanding and appreciation of the floristic diversity of the Intermountain Region.
- **Utah Native Plant Society**
UNPS.org
The UNPS fosters public recognition of the spectacularly diverse flora of the state--a natural treasure to be valued, respected and protected. See the Cache Chapter FACEBOOK page.

Utah-wide Resources

- **Center for Water-Efficient Landscaping**
<http://cwel.usu.edu>
- **Central Utah Water Conservation District “Virtual Garden”**
<http://gardens.cuwcd.com/gardendemo/>
- **Find Native Plants: Utah**
<http://findnativeplants.com/southwest/utah-native-plants/>
- **Native Plant List: Utah and Colorado**
<http://www.plantnative.org/rpl-ut.htm>
- **Jordan Valley Water Conservancy District**
jrwc.org.
<http://www.slowtheflow.org/tips/landscape.aspx>
Highlights: Display garden open for public tours, plant list on Web site, nurseries that worked in their garden.
- **The Permaculture Research Institute**
<http://permaculturenews.org/2012/07/20/gorgeous-gardens-from-garbage-how-to-build-a-sheet-mulch/>
- **Utah Division of Wildlife Resources**
Dwrcdc.nr.utah.gov
Plants for wildlife
- **Water-Wise Landscaping**
http://extension.usu.edu/files/publications/publication/HG_Turf_2006-01.pdf
Practical Turf grass Areas
- **Water-wise plants for Utah**
www.waterwiseplants.utah.gov/default.asp?p=Landscapes

USU Extension Fact Sheets

- **Gardening for Native Pollinators**
www.fs.fed.us/wildflowers/pollinators/documents/plants-pollinators09.pdf
- **Rainwater Harvesting**
<http://extension.usu.edu/waterquality/htm/urbanstormwater/rain-water-harvesting/>