

## GOLDENEYE

### **GOLDENEYE, SHOWY** (*Viguiera multiflora* [Nutt.] Blake)

A perennial forb that is native to dry to moderately moist hillsides from 2500 to 9500 feet elevation in the Great Basin states. It is a member of Composite family. Showy goldeneye is up to 50 inches in height. Average number of seeds per pound: 1,050,000.

## HAWKSBEARD

### **HAWKSBEARD, TAPERTIP** [#35] (*Crepis acuminata* Nutt.)

A perennial, tap-rooted forb with milky sap, up to 28 inches in height. Tapertip hawksbeard is a member of the Composite family. It is native to dry prairies and foothills in the interior western USA. *Crepis* sp. are important components of sage grouse habitat, identified as an important native forb for seed development.

## HOARY-ASTER

### **HOARY-ASTER** (*Machaeranthera canescens* [Pursh] Gray)

A short-lived forb, member of the Composite family, a widespread native to sagebrush/grassland areas of the western USA, including the Great Basin region. Hoary-aster is an important component of sage grouse habitat.

## LUPINE

### **LUPINE, BIG-LEAF** (*Lupinus polyphyllus* Pursh)

A perennial, native, leguminous forb, with large leaves and showy blue pinnate flowers. Big-leaf lupine grows along streams and meadows, foothills and mountains, on shaded or open slopes, in the western USA, including the Great Basin region. Average number of seeds per pound: 70,000.

### **LUPINE, PRAIRIE** (*Lupinus lepidus* Dougl.)

A perennial, native, leguminous forb that grows in prairies and foothills in the interior western USA.

### **LUPINE, RUSTY** (*Lupinus pusillus* Pursh)

A perennial, native, leguminous forb that grows in sandy deserts of the western USA, including the Great Basin region.

### **LUPINE, SILKY** [#36] (*Lupinus sericeus* Pursh)

A perennial, native, leguminous forb that occurs in sagebrush steppe to lower montane forests in the interior western USA. Average number of seeds per pound: 20,000.



*Linum lewisii*  
 31 Lewis' Flax



32 *Erigeron chrysopsides*  
 Dwarf Yellow Fleabane



*Sphaeralcea grossulariaefolia*  
 33 Gooseberryleaf Globemallow



*Sphaeralcea munroana*  
 Munro's Globemallow 34

**LUPINE, SILVER** (*Lupinus argenteus* Pursh)

A perennial, native, leguminous forb that occurs in sagebrush steppe to lower montane forests in the interior western USA. Average number of seeds per pound: 20,000.

**LUPINE, TAILCUP** (*Lupinus caudatus* Kell.)

A perennial, native, leguminous forb that occurs in sagebrush steppe to ponderosa pine forests in the interior western USA, including the Great Basin region.

Average number of seeds per pound: 25,000.

**LUPINE, WOOLLY** (*Lupinus leucophyllus* Dougl.)

A perennial, native, leguminous forb, also known as velvet lupine. It occurs on sites with sagebrush and ponderosa pine, also found on dry foothills in the Intermountain West, including the Great Basin region.

<b>MARIPOSA-LILY</b>
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**MARIPOSA-LILY, ELEGANT** (*Calochortus elegans* Pursh)

A perennial forb, member of the Lily family, native to open grassy sites, prairies, and coniferous forests in the western USA.

**MARIPOSA-LILY, SAGEBRUSH** (*Calochortus macrocarpus* Dougl.)

A perennial forb, member of the Lily family, native to the sagebrush-steppe, prairies, and other dry places in the interior western USA. It is a component of sage grouse habitat.

**MARIPOSA-LILY, BROAD-FRUIT** (*Calochortus nitidus* Dougl.)

A perennial forb, member of the Lily family, native to open grassy sites and sagebrush plains, naturally occurs in the Great Basin states. *Calochortus* sp. have edible bulbs, an important food source for wildlife and humans. It is a component of sage grouse habitat.

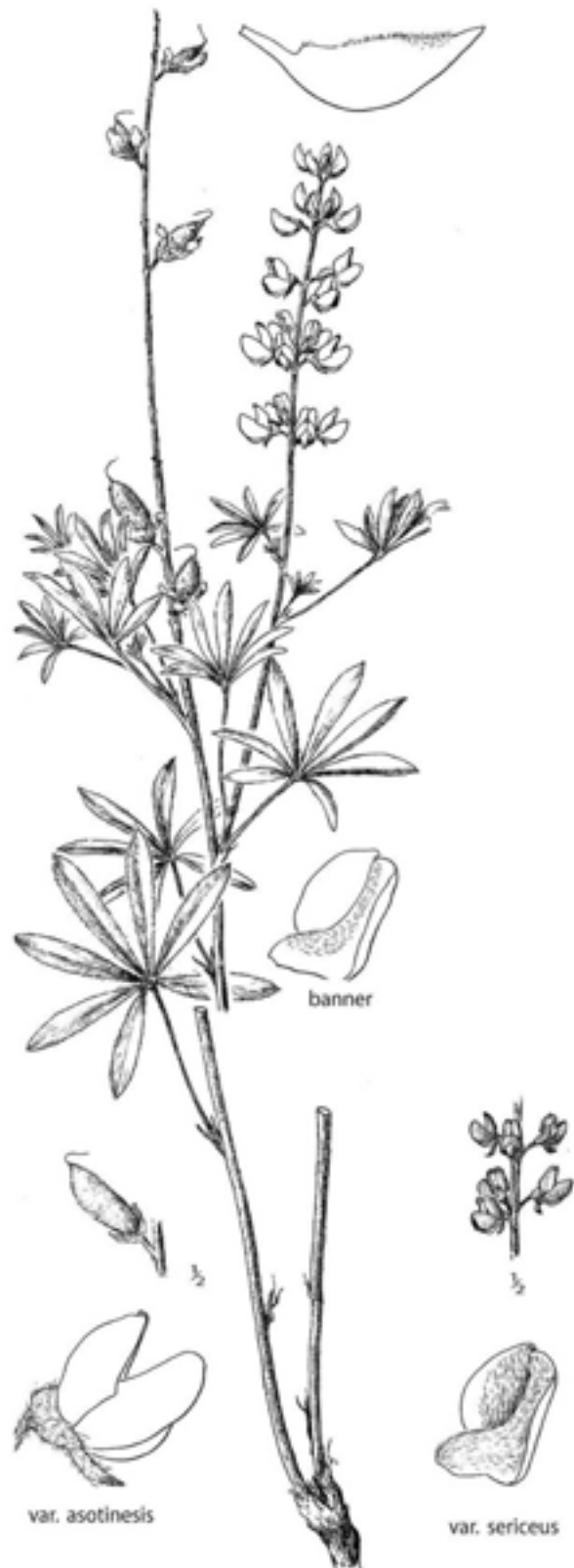
**SEGO-LILY, NUTTALL'S** (*Calochortus nuttallii* T. & G.)

A perennial forb, member of the Lily family, native to open grassy sites and sagebrush plains, primarily in the Great Basin states. *Calochortus* sp. have edible bulbs, an important food source for wildlife and humans. It is a component of sage grouse habitat.

Average number of seeds per pound: 190,000.



35 *Crepis acuminata*  
Tapertip Hawksbeard



var. *asotinesis*

*Lupinus sericeus*  
36 Silky Lupine

var. *sericeus*

## MILKVETCH

### **MILKVETCH, BASALT [#37]** (*Astragalus filipes* Torr.)

A perennial leguminous forb, also known as threadstalk milkvetch, is native to the sagebrush plains and foothills of the interior western USA. It is a component of sage grouse habitat. Average number of seeds per pound: 100,000.

### **MILKVETCH, CICER** (*Astragalus cicer* L.)

A perennial, leguminous non-native forb introduced from Eurasian sources. It has been utilized for pasture and hayland in the USA. It requires at least 14 inches mean annual precipitation.

### **MILKVETCH, FRECKLED** (*Astragalus lentiginosus* Dougl.)

A perennial leguminous forb; a widespread native milkvetch that is found on desert flats, sagebrush plains, foothills, and subalpine slopes of the interior western USA. It is a component of sage grouse habitat. Average number of seeds per pound: 95,000.

### **MILKVETCH, HERMIT** (*Astragalus eremiticus* Sheld.)

A perennial leguminous forb native to the sagebrush desert to pinyon-juniper woodland of the interior western USA. Hermit milkvetch occurs from southeastern Oregon and southwestern Idaho to southwestern Utah and northwestern Arizona.

### **MILKVETCH, PULSE** (*Astragalus tenellus* Pursh)

A perennial leguminous forb native to the sagebrush plains, prairies, and foothills of the interior western USA. It is a component of sage grouse habitat.

### **MILKVETCH, SILVER-LEAVED** (*Astragalus argophyllus* Nutt.)

A perennial leguminous forb, alkali tolerant, native to the sagebrush plains and foothills of the interior western USA. It is a component of sage grouse habitat.

### **MILKVETCH, UTAH** (*Astragalus utahensis* [Torr] T&G.)

A perennial leguminous forb with very showy pink-purple flowers. It is native to sagebrush-grasslands, pinyon pine – juniper, and mountain brush habitat in the Wasatch Mountains and portions of the eastern Great Basin region.

### **MILKVETCH, WOOLLYPOD** (*Astragalus purshii* Dougl.)

A perennial leguminous forb native to the sagebrush plains, prairies, and foothills of the interior western USA. Woollypod milkvetch is a component of sage grouse habitat. Average number of seeds per pound: 110,000.

## MILKWEED

### **MILKWEED, SHOWY** (*Asclepias speciosa* Torr.)

A perennial forb native to loamy or sandy soils, usually moist, in the western USA. Showy milkweed requires a minimum of 12 inches of annual rainfall for establishment. It is a component of sage grouse habitat.

## MICROSERIS

### **MICROSERIS, NODDING** (*Microseris nutans* [Geyer] Schultz-Bip.)

A perennial forb, member of the Composite family, with milky sap. It is native to open, usually moist areas, lowlands to fairly high elevations in the mountains of the interior western USA. It is a component of sage grouse habitat.

## ONION

### **ONION, TAPERTIP** (*Allium acuminatum* Hook.)

A perennial native forb, member of the Lily family that naturally occurs in dry plains and flats to foothills of the interior western USA.

## PEAVINE

### **PEAVINE, BONNEVILLE** (*Lathyrus brachycalyx* Rydb.)

A perennial herbaceous legume the naturally occurs in grasslands and sagebrush prairies of the interior western USA.

### **PEAVINE, FEW-FLOWERED** (*Lathyrus pauciflorus* Fern.)

A perennial herbaceous legume the naturally occurs in grasslands, sagebrush steppe and ponderosa pine woodlands of the interior western USA.

## PENSTEMON

### **PENSTEMON, BEARDLIP** (*Penstemon barbatus* [Cav.] Roth)

A perennial forb, also known as scarlet bugler, native to foothills and valleys in southern Utah, northern Arizona and southern Nevada.

Average number of seeds per pound: 550,000.

### **PENSTEMON, BLUE MOUNTAIN** (*Penstemon venustus* Dougl. ex Lindl.)

A perennial forb, stout tap-root, shrubby at the base of the plant; the stems are up to 32 inches height at maturity, native to aridlands of the interior USA. The flowers are bright lavender to purple-violet. Venus' penstemon naturally occurs on open, rocky slopes, from valleys and foothills to middle elevations in the mountains of Idaho and eastern Oregon; also occurs in the Northern Basin and Range ecoregion. Cultivar: Clearwater was released by the NRCS Aberdeen Plant Materials Center located in eastern Idaho.

### **PENSTEMON, DARK BLUE** (*Penstemon cyaneus* Pennell)

A perennial forb, up to 28 inches in height, weakly tap-rooted with several stout stems, and often associated with big sagebrush. Dark blue penstemon is native to the Snake River Plains and portions of the Northern Basin and Range in southern Idaho. It is a component of sage grouse habitat. Average number of seeds per pound: 180,000.

### **PENSTEMON, EATON'S** (*Penstemon eatonii* Gray)

A perennial forb, with bright red flowers; up to 28 inches in height. It is native to aridlands, including big sagebrush sites, in the interior western USA, including portions of the Great Basin region. Cultivar: Richfield was released by the NRCS Plant Materials Center, Aberdeen, Idaho. Average number of seeds per pound: 600,000.

### **PENSTEMON, HOT-ROCK** (*Penstemon deustus* Dougl.)

A perennial forb, more less woody to a much branched base with seasonal stems, up to 24 inches in height. Hot-rock penstemon is native to aridlands of the interior USA. Flowers are whitish with purple lines. It naturally occurs on dry, open, often rocky places from low elevations moderately high elevations in the mountains in the Great Basin. It is a component of sage grouse habitat.

### **PENSTEMON, PALMER'S** (*Penstemon palmeri* Gray)

A perennial forb, with pinkish flowers, up to 30 inches in height, native to aridlands of the interior USA, including the southern Great Basin and Wasatch Plateau. Cultivar: 'Cedar' was released by NRCS Plant Materials Center, Los Lunas, New Mexico.

Average number of seeds per pound: 600,000.

### **PENSTEMON, ROCKY MOUNTAIN** (*Penstemon strictus* Benth.)

A perennial forb, red-purple flowers, up to 28 inches in height, native to sites in the central to northern Rocky Mountains and the Wasatch Mountains (Utah). Cultivar: 'Bandera' Rocky Mountain penstemon was released by the NRCS Plant Materials Center, Los Lunas, New Mexico. Average number of seeds per pound: 520,000.

**PENSTEMON, RYDBERG'S [#38]** (*Penstemon rydbergii* A. Nels.)

A perennial forb, tufted with loose or compact, surficial woody rhizomes, up to 30 inches in height. Rydberg's penstemon is native to aridlands of the interior USA. It is often found in meadows and moist open slopes, occasionally on dry slopes with big sagebrush, usually occurs in foothills and mountains in the Great Basin. It is a component of sage grouse habitat.

**PENSTEMON, SHOWY or SAGEBRUSH [#39]** (*Penstemon speciosus* Dougl.)

A perennial forb, up to 36 inches height at maturity, with several stout stems arising from a compact, branched root crown. Flowers are blue-purple. Showy or sagebrush penstemon is native to aridlands of the interior USA. It naturally occurs on dry, open or sparsely wooded slopes, often associated with big sagebrush, juniper or ponderosa pine habitats, usually in low elevations and foothills in the Great Basin. It is a component of sage grouse habitat.





37 *Astragalus filipes*  
Basalt Milkvech



38 *Penstemon rydbergii*  
Rydberg's Penstemon



39 *Penstemon speciosus*  
Sagebrush Penstemon

**PENSTEMON, SAND-DUNE [#40]** (*Penstemon acuminata* Dougl.)

A perennial forb, stout stems from a short root crown (caudex), glabrous, up to 24 inches height at maturity, native to aridlands of the interior USA. The flowers (corolla) are bright blue. Sand-dune penstemon occurs on dry, open, sandy areas at low elevations, often on dunes from eastern Oregon to south central Idaho, south to Nevada. It is a component of sage grouse habitat.

**PENSTEMON, WHIPPLE'S** (*Penstemon whippleanus* Gray)

A perennial forb, plants tufted, up to 24 inches height at maturity, native to aridlands of the interior USA. It has variable flower color, from blue, violet to lavender or whitish. Whipple's penstemon naturally occurs on dry meadows, open or lightly wooded areas, often on rocky slopes into the mountains in southeastern Idaho, Utah and portions of Nevada. It is a component of sage grouse habitat.

<b>PHACELIA</b>
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**PHACELIA, IVES'** (*Phacelia ivesiana* Torr.)

An annual forb native to dry, sandy grasslands and prairies. It commonly occurs with big sagebrush in the interior western USA, including portions of the Great Basin region.

**PHACELIA, SILVERLEAF** (*Phacelia hastata* Dougl. ex Lehm.)

A perennial forb with a stout tap-root and may be shrubby at the base of the plant; up to 24 inches in height. It is native to dry prairies and grasslands in the interior western USA, including the Great Basin region. Silverleaf phacelia, also known as scorpionweed, may be found at all elevations and often occurs on sands or sandy loam soils. It is a component of sage grouse habitat.

<b>PHLOX</b>
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**PHLOX, HOOD'S** (*Phlox hoodii* Rich.)

A perennial tap-rooted forb, compact and mat-forming, it is native to the western USA. Hood's phlox naturally occurs on dry, open sites in foothills, valleys, and plains, commonly associated with big sagebrush in the Great Basin. It is a component of sage grouse habitat.

**PHLOX, LONGLEAF [#41]** (*Phlox longifolia* Nutt.)

A perennial forb, often branched with creeping roots, eventually forms a tap-root, it is native to the western USA. Longleaf phlox is found on dry, open rocky places, from low elevations to moderately high elevations in the mountains widespread in the Great Basin. It is a component of sage grouse habitat.

**PHLOX, SHOWY** (*Phlox speciosa* Pursh)

A perennial forb with a woody tap-root, up to 16 inches in height at maturity, it is native to the western USA. Showy phlox is found on big sagebrush and ponderosa pine sites into the northern Great Basin. It is a component of sage grouse habitat.

**SLENDER PHLOX** (*Phlox gracilis* [Hook.] Greene)

A slender, much-branched perennial forb, up to 12 inches in height. Slender phlox (also known as *Microsteris gracilis*) is native to the western USA. It naturally occurs in dry to moderately moist grasslands and prairies, usually in the lowlands and foothills in the Great Basin region.

**PHLOX, SPINY** (*Phlox aculeata* A. Nels.)

A perennial, compact forb with a woody tap-root, up to 14 inches in height at maturity, it is native to the western USA. Spiny phlox is found on big sagebrush and ponderosa pine sites in the northern Great Basin and Snake River Plains.

**PRARIECLOVER**

**PRAIRIECLOVER, WESTERN** (*Dalea ornata* [Dougl. ex Hook] Eat. & J. Wright)

A perennial, native leguminous forb, with pink to rose colored flowers, occurs on sandy or rocky sites, often associated with big sagebrush. Western prairie clover is also known as *Petalostemon ornatum*. Ecoregions: Columbia Plateau, Blue Mountains, Snake River Plain, and portions of the Northern Basin and Range. It is a component of sage grouse habitat. Average number of seeds per pound: 440,000.

**PRARIE-SMOKE**

**PRAIRIE-SMOKE** (*Geum triflorum* Pursh)

A native, perennial forb, up to 24 inches in height. It is an herbaceous member of the Rose family. Prairie-smoke, also known as “old-man’s whiskers”, naturally occurs in moister areas of the sagebrush plains and foothills to sub alpine ridges in the western USA, including the Great Basin region. Average number of seeds per pound: 690,000.

**PRINCE’S-PLUME**

**PRINCE’S-PLUME** (*Stanleya pinnata* [Pursh] Britt.)

A perennial forb, a member of Mustard family. Prince’s-plume naturally occurs, widespread, from dry plains to lower mountains of the interior western USA.

## PUCCOON

### **PUCCOON** (*Lithospermum ruderale* Dougl. ex Lehm.)

A perennial forb with a woody taproot, up to 24 inches in height. It is a member of the Borage family. Puccoon, also known as western gromwell, is native to fairly dry prairies and grasslands from the foothills and adjacent lowlands to moderate elevations in the mountains of the western USA, including the Great Basin region.

## SAINFOIN

### **SAINFOIN** [#42] (*Onobrychis viciaefolia* Scop.)

A perennial, leguminous non-native forb introduced from Eurasian sources. Sainfoin is adapted to dryland areas of the western USA. Cultivars including 'Eski' and 'Renumex' are available for use in the Great Basin. Average number of seeds per pound: 28,000.

## STARFLOWER

### **STARFLOWER, BULBOUS** (*Lithophragma bulbifera* Rydb.)

A perennial forb with noticeable bulblets, native to grassy hillsides, sagebrush communities to ponderosa pine sites in the western USA, including the Great Basin area. It is a member of the Saxifrage family. An important component of sage grouse habitat.

### **STARFLOWER, PRAIRIE** (*Lithophragma parviflora* [Hook.] Nutt.)

A perennial forb, native to prairies, grasslands, sagebrush deserts to lower montane habitats in the western USA, including the Great Basin area. It is a member of the Saxifrage family. Prairie starflower is an important component of sage grouse habitat.

## SUNFLOWER

### **SUNFLOWER, ANNUAL** (*Helianthus annuus* L.)

An annual forb, member of Composite family. Annual sunflower occurs, widespread, across a variety of dry to moist habitats in North America. Average number of seeds per pound: 45,000.

## SCURF-PEA

### **SCURF-PEA** (*Psoralea lanceolata* Pursh)

A perennial leguminous forb that occurs on sandy soils, often associated with sagebrush communities, in the western USA. Ecoregions: Eastern Cascades, Columbia Plateau, Blue Mountains, and Northern Basin and Range.

## SWEETCLOVER

### **SWEETCLOVER, YELLOW** (*Melilotus officinalis* [L.] Lam.)

A short-lived non-native forb introduced from European sources. It is a member of the legume family. Yellow sweetclover has been utilized in the western USA as livestock forage and a temporary nitrogen-fixation plant to improve soil health.

Average number of seeds per pound: 230,000.

## SWEETVETCH

### **SWEETVETCH, NORTHERN** (*Hedysarum borealis* Nutt.)

A perennial leguminous forb that is native to meadows and mid-elevation slopes of the intermountain western USA. Average number of seeds per pound: 90,000. **Cultivar:** 'Timp', seed source from the Wasatch Mountains in Utah, is a public release commercially available in limited quantities.

## TREFOIL

### **DEERVETCH, BIG** (*Lotus crassifolius* [Benth.] Greene)

A perennial leguminous forb that is native to lowland to montane sites from northwestern Washington to southern California. Average seeds per pound: 250,000.

### **TREFOIL, BIRDSFOOT** (*Lotus corniculatus* L.)

A perennial leguminous forb introduced to North America from European sources. Birdsfoot trefoil has been used in pasture plantings and has escaped in moist areas of the western USA. *Birdsfoot trefoil may be invasive in riparian areas, wet meadows, and wetlands.* Average number of seeds per pound: 450,000.

### **DEERVETCH, MEADOW** (*Lotus denticulatus* [Drew] Greene)

A perennial leguminous forb that is native to sandy soils primarily restricted to sites in Oregon and California.

### **DEERVETCH, NEVADA** (*Lotus nevadensis* [Wats.] Greene)

A perennial leguminous forb that is native to sandy or rocky soils of the western USA.

## VETCH

### **VETCH, AMERICAN** (*Vicia americana* Muhl.)

A perennial leguminous forb that is native to generally moist sites in North America. Average number of seeds per pound: 30,000.

**VETCH, HAIRY** (*Vicia hirsuta* [L.] S.F. Gray)

A perennial leguminous forb introduced to North America, from European seed sources. Hairy vetch has been utilized in pasture and hayland seedings in the western United States. Average number of seeds per pound: 17,000.

**VIOLET**

**VIOLET, SAGEBRUSH** (*Viola nuttallii* var. *vallicola* [A. Nels.] St. John)

A perennial forb that grows from short, erect rootstalks. The petals are yellow and brownish-purple backed. Sagebrush violet is native to sagebrush communities and sagebrush-ponderosa pine benchlands in the interior western USA. It is a component of sage grouse habitat.

**WALLFLOWER**

**WALLFLOWER, WESTERN [#43]** (*Erysimum occidentale* [Wats.] Robins)

A biennial forb that is native to sagebrush steppe and desert valleys in the interior western USA. Western wallflower is a member of the Mustard family. Average number of seeds per pound: 3,000,000.

**WYETHIA**

**WYETHIA, MULE'S-EAR** (*Wyethia amplexicaulis* Nutt.)

A perennial forb that is native to open slopes and dry meadows from foothills to mid-elevations in mountains of the interior western USA. Mule's-ear Wyethia is a member of Composite family. It is a component of sage grouse habitat. Average number of seeds per pound: 25,000.

**YAMPAH**

**YAMPAH, BOLANDER'S** (*Perideridea bolanderi* [Gray] Nels. & Macbr.)

A perennial forb, member of the Carrot family that is native to dry hillsides, foothills and high plains in the western USA, including the Great Basin region. Cultural significance: the fleshy taproot of yampah is an important food source for wildlife and humans.

**YAMPAH, GAIRDNER'S** (*Perideridea gairdneri* [H. & A.] Math.)

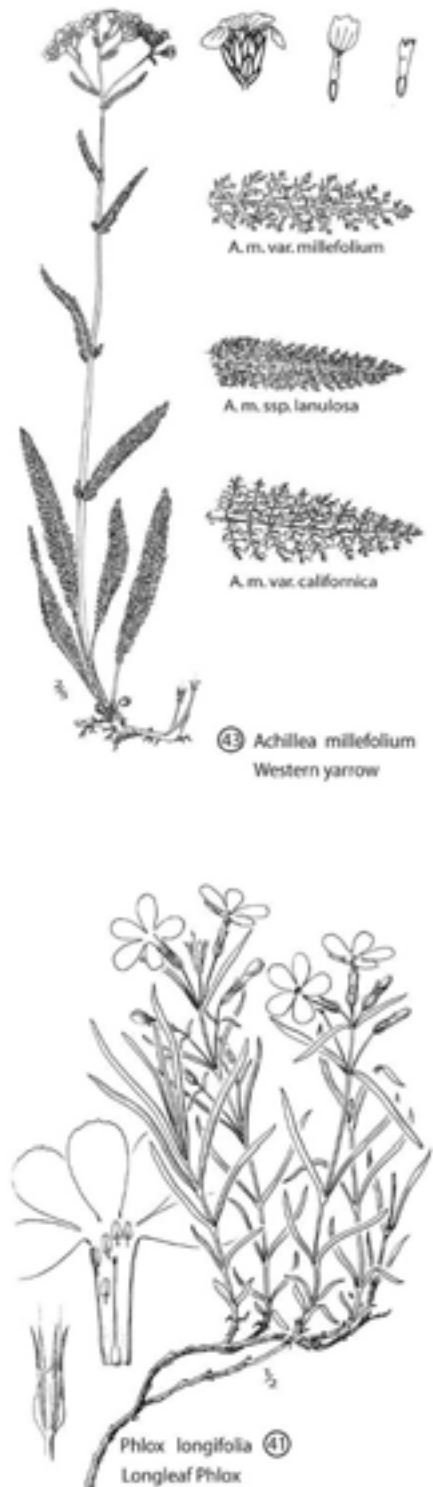
A perennial forb, member of the Carrot family that is native to meadows and woodlands in the western USA, including the Great Basin region. Cultural significance: the fleshy taproot of yampah is an important food source for wildlife and humans.



40 *Penstemon acuminatus*  
Sand-Dune Penstemon



42 *Onobrychis viciaefolia*  
Sainfoin



43 *Achillea millefolium*  
Western yarrow



*Phlox longifolia* 41  
Longleaf Phlox

## YARROW

### **YARROW, WESTERN** (*Achillea millifolium* var. *occidentalis* DC)

A perennial, white-flowered forb that is native to the western USA. It is a member of the Composite family. Western white yarrow is not be confused with other invasive introduced yarrows of European or New Zealand origin that have been used in ornamental gardens. *The potentially invasive non-native yarrows are often referred to as “Summer Pastel” varieties due to their light blue, pink, or yellow flowers.* Cultural significance: western yarrow has some importance as a traditional medicinal plant. Average number of seeds per pound: 2,700,000.

## YUCCA

### **YUCCA, SOAPWELL** (*Yucca glauca* Nutt.)

A perennial forb, member of the Lily family that is native to prairies and open woodlands of the Rocky Mountains and eastward in the USA. Average number of seeds per pound: 25,000.

### **A General Rule to Diversify a Seed Mixture With Forb Seed:**

**Add one pound of seed per forb species per acre (or less, if seed cost and availability is a concern). Always request certified seed, source-identified or cultivars to verify quality and species.**

**Note: The plant species included in this guidebook are available from commercial seed vendors in very limited to good quantities.**



## GREAT BASIN SHRUBS

### ROSE

#### **ALMOND, DESERT** (*Prunus fasciculata* [Torr.] Gray)

A spiny, divergent-branching, deciduous shrub up to 12 feet tall. Desert almond is a member of the Rose family. It is native to western portions of the Great Basin, in California, Nevada, Oregon and Idaho. Desert almond root sprouts after fire or cutting. It occurs on desert foothills and valleys, sometimes associated with pinyon-juniper and mountain shrub communities; at 3,200 to 6,000 feet in elevation.

#### **PEACH, DESERT** (*Prunus andersonii* Gray)

A deciduous, spreading, low shrub up to 6 feet tall; it is diffusely branched and thorny. The fruit resembles a small, fuzzy peach. Desert peach is a member of the Rose family. It is native to east slope of the Sierra Nevada and western portions of the Great Basin, in California and Nevada.

#### **BITTERBRUSH** [#44] (*Purshia tridentata* [Pursh] DC)

An evergreen shrub up to 14 feet tall, may be upright or somewhat prostrate in growth form. Some ecotypes of bitterbrush are fire intolerant; they do not recover after wildfire occurs. It is a member of the Rose family. It is native to interior western USA, including the Central Basin and Range, Northern Basin and Range, Snake River Plain, Blue Mountains, East Slope of Cascade Mountains, and Columbia Plateau Ecoregions. Bitterbrush naturally occurs in well-drained sandy, gravelly, or rocky soils throughout the big sagebrush, pinyon pine/juniper, ponderosa pine, and lodgepole pine communities from lowlands to high elevations. It grows best at nine to 18 inches annual precipitation. Average number of seeds per pound: 15,000.

#### **CHOCKECHERRY, WESTERN** (*Prunus virginiana* ssp. *demissa* [Nutt.] Torr.)

An erect, deciduous shrub or small tree up to 18 feet tall. It is a member of the Rose family. Western chokecherry is native to the western USA, including portions of the Great Basin region. It occurs on grasslands and with sagebrush, mainly along watercourse, also found on lower mountain slopes to ponderosa pine forests; up to about 8,200 feet in elevation. It requires 15 inches of annual rainfall for establishment. Western chokecherry is shallow-rooted and naturally spreads by rhizomes. It often sprouts from the rhizomes after wildfire or other disturbances. The red to purple-black berries are edible to wildlife and humans. Average number of seeds per pound: 2,000.

**CLIFFROSE** (*Cowania stansburiana* [Torr.] Hendrickson)

A much-branched, evergreen shrub, three to 20 feet tall, often resinous. The stems of cliffrose are erect, rather stiff, and have gray, shreddy bark. Cliffrose is a member of the Rose family. It is native to the Central Basin and Range and Colorado Plateau Ecoregions. It naturally occurs on dry, rocky foothills and mesas, frequently associated with pinyon pine/juniper, big sagebrush and salt desert shrub communities. It grows best on sites that receive eight to 16 inches annual rainfall.

Average number of cliffrose seeds per pound: 65,000.

**FERNBUSH** (*Chamaebatiaria millefolium* [Torr.] Maxim.)

An upright, multistemmed, aromatic shrub that is up to seven feet tall. Fernbush is a member of the Rose family. It is evergreen in the southern areas of its range. It is native to the Great Basin, Colorado Plateau and surrounding areas in the western United States that receive from 11 to 18 inches of mean annual precipitation. Fernbush grows in rock outcrops and cliffs, and on well-drained soils of dry, rocky, and gravelly canyons and lower mountain slopes. It may root sprout after fire or cutting.

Average number of seeds per pound: 1,700,000.

**INDIAN-APPLE [#45]** (*Peraphyllum ramosissimum* Nutt.)

An intricately branched, deciduous shrub up to seven tall, with simple, nearly sessile leaves clustered at the ends of short branchlets. Indian-apple is native to the interior western USA from California to Colorado, including much of the Great Basin region. It is often associated with mountain brush and big sagebrush communities.

Average number of seeds per pound: 24,000.

**MOUNTAIN-MAHOGANY, BIRCHLEAF** (*Cercocarpus betuloides* Nutt.)

A deciduous shrub up to 12 feet tall, a member of the Rose family. It is native to moderate elevations, usually mid-montane sites, in the Great Basin region.

**MOUNTAIN-MAHOGANY, CURL-LEAF [#46]** (*Cercocarpus ledifolius* Nutt.)

An erect, evergreen shrub or small tree up to 23 feet tall, the leathery leaves are elliptic to lanceolate, the leaves are somewhat resinous and glabrous above. It is a member of the Rose family. Curl-leaf mountain-mahogany is native to the interior western USA, including the Great Basin region. It naturally occurs on dry, rocky ridges usually on southern or western aspects at moderate elevations (6,000-9,000 feet).

Average number of seeds per pound: 50,000.

**MOUNTAIN-MAHOGANY, LITTLE-LEAF** (*Cercocarpus intricatus* S. Wats.)

An intricately branched, evergreen shrub up to 14 feet tall, with narrowly linear and strongly revolute leaves. Little-leaf mountain-mahogany is a member of the Rose family. It is native to the Great Basin regions of Utah and Nevada, associated with black sagebrush and other desert shrub communities.

Average number of seeds per pound: 50,000.

**MOUNTAIN-MAHOGANY, TRUE [#47] (*Cercocarpus montanus* Raf.)**

A deciduous evergreen shrub to 13 feet tall, a member of the Rose family. True mountain-mahogany is native to western USA, including the Great Basin region. It occurs on coarse, shallow soil on south- or west-facing slopes and ridges, but is also common in moist, fertile, loamy soils of canyon bottoms and on north slopes at lower elevations. It is found from 4,000 to 10,000 feet elevations, associated with pinyon pine/juniper, ponderosa pine, bitterbrush and sagebrush communities.

Average number of seeds per pound: 60,000.

**SERVICEBERRY, UTAH [#48] (*Amelanchier utahensis* Koehne)**

A deciduous shrub two to 15 feet tall at maturity, with numerous branched, pubescent, ash-gray twigs. The leaves are somewhat leathery at maturity, grayish green to dark green. Utah serviceberry is a member of the Rose family. It is native to foothills, dry slopes, and is associated with big sagebrush, pinyon pine/juniper, and ponderosa pine communities in the Great Basin region. It grows best sites that receive greater than 14 inches annual rainfall. The purplish, dark blue fruit is edible to humans, wildlife and livestock. Average number of Utah serviceberry seeds per pound: 25,000.



*Purshia tridentata*  
Bitterbrush ④



*Peraphyllum ramosissimum*  
⑤ Indian-Apple



⑦ *Cercocarpus montanus*  
True Mountain-Mahogany



*Cercocarpus ledifolius*  
var. *intercedens* J.R.  
⑧ *Cercocarpus ledifolius*  
Curleaf Mountain-Mahogany



*Amelanchier utahensis*  
⑨ Utah Serviceberry

## BUCKWHEAT

### **BUCKWHEAT, ARROW-LEAF [#49]** (*Eriogonum compositum* Dougl. ex Benth.)

A low-growing sub-shrub up to two feet tall and may form a prostrate or mat-like clump. It has a strong woody taproot and is often herbaceous above. Arrow-leaf buckwheat is a member of the Polygonum family. It is native to the western USA, including the northern portions of the Great Basin region. Arrow-leaf buckwheat naturally occurs on talus slopes, cliffs and open rocky sites.

### **BUCKWHEAT, CUSHION** (*Eriogonum ovalifolium* Nutt.)

A caespitose sub-shrub, forming mats up to 1.5 feet broad. Cushion buckwheat is native to the Great Basin region. It is associated with the sagebrush steppe, pinyon pine/juniper, and ponderosa pine communities, and may also occur on alpine ridges and talus slopes above timberline.

### **BUCKWHEAT, DESERT** (*Eriogonum cernuum* Nutt.)

An annual plant that is up to 1.5 feet tall. Desert buckwheat is a member of the Polygonum family. It is native to the area from the south-central Oregon to the Rocky Mountains, including the northern portions of the Great Basin region. It naturally occurs on sandy desert hills and valleys.

### **BUCKWHEAT, SNOW** (*Eriogonum niveum* Dougl. ex Benth.)

A sub-shrub up to 1.5 feet tall, with a thick woody taproot and freely branched crown. It is a member of the Polygonum family. The cream-white flowers appear in late summer and seed is ripe in the fall months. Snow buckwheat is native to the Columbia Plateau, including eastern Oregon and south-western Idaho. It naturally occurs in the sagebrush steppe to the ponderosa pine woodlands. It requires eight to 18 inches of annual rainfall for establishment.

### **BUCKWHEAT, SULFUR-FLOWER** (*Eriogonum umbellatum* Torr.)

A sub-shrub with a strong taproot and freely branching crown, usually forming flat mats. Sulfur-flower buckwheat may be up to 1.5 feet tall. It is native to the interior western USA, including the Great Basin region. It occurs in varied habitats from the sagebrush steppe and foothills to alpine ridge, talus slopes and rock crevices.

## JOINTFIR

### **JOINTFIR, NEVADA** (*Ephedra nevadensis* S. Wats.)

A shrub with jointed, ridged gray-green stems, up to three feet tall. The plants are usually dioecious, male and female occur on separate plants. Nevada Jointfir appears nearly leafless; the leaves are scale-like, 2 to 3 per node. The yellow to whitish flowers occur in the spring. It is native to southern and central portions of the Great Basin region, often found on sandy soils at low to moderate elevations.

Average number of Nevada jointfir seeds per pound: 20,000.

**MORMON-TEA, EPHEDRA** (*Ephedra viridis* Coville)

A shrub with jointed, ridged green stems, up to four feet tall. The plants are usually dioecious, male and female occur on separate plants. Mormon-tea, also known as green ephedra, appears nearly leafless; the leaves are scale-like with 2 to 3 per node. The yellow to whitish flowers occur in the spring. It may be associated with sagebrush steppe and salt desert shrub communities. Mormon-tea (Ephedra) is the most common native Ephedra in the Great Basin region.

Average number of green ephedra seeds per pound: 20,000.

**KINNIKINNICK**

**KINNIKINNICK** (*Arctostaphylos uva-ursa* [L.] Spreng.)

A prostrate, evergreen shrub up to eight inches tall, with trailing and rooting stems sometimes forming mats up to ten feet broad. It is a member of the Heather (Erica) family. Kinnikinnick, also known as bearberry, is native to the western USA and across the northern latitudes through Eurasia. It occurs on sandy soils from the sagebrush steppe to ponderosa pine woodlands and other forested habitats.

**SALTBUSH**

**GREASEWOOD, BLACK** (*Sarcobatus vermiculatus* [Hook.] Torr.)

An erect, spiny-branched, usually deciduous shrub up to ten feet tall. The leaves are bright green, 1 to 4 cm long and narrowly linear. It is a member of the Chenopod family. Black greasewood is native to the western USA, including the Great Basin region. It is found at middle elevations on slight to moderate saline areas, often low-lying sites. It may be associated with other salt desert shrubs, rabbitbrush, and sagebrush dominated communities.

Average number of black greasewood seeds per pound: 285,000.

**HOPSAGE, SPINY** (*Grayia spinosa* [Hook.] Moq.)

An erect, diffusely branched, deciduous shrub up to four feet tall. It is a member of the Chenopod family. Spiny hopsage is native to the interior western USA, including the Great Basin region. It occurs over a wide range of desert soils, on plains and foothills. The soils are typically high in calcium and strongly basic, but in some areas, it grows on neutral pH soils. Spiny hopsage often grows in association with big sagebrush.

Average number of seeds per pound: 165,000.

**SALTBUSH, FOURWING [#50]** (*Atriplex canescens* [Pursh] Nutt.)

A freely branching, evergreen shrub up to eight feet tall. It is usually dioecious, male and female flowers occur on separate plants. It is a member of the Chenopod family. Fourwing saltbush is native to the interior western USA, including the Great Basin region. It is one of the most widespread western shrubs on arid, sandy lands. It occurs on well-drained sandy to silt loam soils, but also grows on clay soils; eight to 16 inches of

annual rainfall is required. Fourwing saltbush is frequently found growing with other salt desert shrubs, basin big sagebrush and sometimes with black sagebrush.

Average number of seeds per pound: 55,000.

**SALTBUSH, GARDNER'S** (*Atriplex gardneri* [Moq.] D.Dietr.)

A low-growing shrub, woody at the base but herbaceous above. Gardner's saltbush is dioecious, male and female flowers occur on separate plants. It is a member of the Chenopod family. Gardner's saltbush is native to portions of the Great Basin, restricted to northern Utah and southern Idaho. It more commonly occurs in Wyoming, Montana, and Colorado. It occurs on "badland" clay soils with a fairly high concentration of soluble salts. Average number of seeds per pound: 75,000.

**SHADSCALE [#51]** (*Atriplex confertifolia* [Torr. & Frem.] S. Wats.)

A compact, spiny, usually evergreen shrub up to 2.5 feet tall. It is a member of the Chenopod family. Shadscale is native to the interior western USA, including the Great Basin region. It usually occurs on heavier textured (clayey) soils, but may occur on sandy loam soil as well. The soils it thrives on are often highly alkaline and may be high in soluble salts, seven to 14 inches of mean annual precipitation. Shadscale is associated with other salt desert shrubs and bud sagebrush.

Average number of seeds per pound: 65,000.



var. lancifolium



*Atriplex canescens*  
Fourwing Saltbush 50



var. compositum

var. leianthum

50 *Eriogonum compositum*  
Arrow-Leaf Buckwheat



51 *Atriplex confertifolia*  
Shadscale