

# Native, Adapted and Historically Introduced Plants for Truckee and Tahoe

## Native Plants for Your Garden - a Villager Nursery passion and a specialty.

Successful gardening and landscaping in the Sierras requires a detailed awareness of your local environment. It helps to have a basic understanding of ecology and of the challenges and advantages that gardens face including, heavy Sierra snow (or lack of snow), rapid and extreme temperature swings, absent topsoil and abundant base-material (why our soils are often slightly acidic), soil structure and microbial life, high-altitude / low latitude winter sun, low humidity, (local and migratory) large and small herbivores, roof shed, snow blowers and plows. And including the normal sun or shade, irrigated or not considerations.

Our **native plants have obviously adapted (evolved)** to thrive in most of the conditions mentioned above. At our nursery we have learned and developed landscaping techniques through our observations of native ecosystems and plants in the wild. Walking through the native environments that surround us, will help you as a **mountain gardener**. Observing which plants, and communities of plants, are thriving in each specific ecosystem and microclimates in nature, will inform your decisions of which plants to try in similar environments in your own garden. Knowing the microclimates in your own garden will improve your ability to choose plants that will succeed.

Remember that, in nature, plant survival is insured by "**mass attempts**". For every million seeds produced in nature, few ever germinate. Of millions of seeds that do eventually germinate, very few survive to maturity to produce seed again. "Survival of the fittest" is often "**Survival of the luckiest**" and most gardeners want better than one-in-a-million odds of success.

**By the time a determined seedling perennial is 3 inches tall it has a root system (from which it draws water and nutrients) that is many times larger than the shoot of the plant.** Commonly quoted ratios of root:shoot\* (usually noted as shoot:root i.e. 0.12-0.2) are in the 5-8:1 range. In our gardens, we start with the disadvantage of planting root systems smaller than the tops (a reversed root to foliage ratio). We have to give all plants, even natives, some care for the first several seasons to help them become "established". Large root systems take a long time to grow. For most plants, a tap-root is a temporary root of an establishing seedling that is quickly lost.

*\*Measuring root mass and related soil biomass in larger plants is very difficult and expensive and there are few extensive studies. It is claimed that up to 80% of CO<sub>2</sub> that plants take in through photosynthesis, is sent to the root system. A significant portion of that carbon is exuded into the soils surrounding roots as sugars to feed the rhizosphere and much of it is used to produce roots. Considering the percentages of carbon and the extensive networks of mycorrhizal fungi performing much of the nutrient uptake for many native plants, the estimates for root + mycorrhizae to foliage (surface areas) is likely in the 100's:1.*

In the northern Sierra Nevada, we sit at the edge of two large climatic regions. On the west side we have a Mediterranean climate. The Pacific Ocean gives us most of our moisture in the winter, with very few summer storms. The eastern slope of the Sierra is in a "rain shadow" and the semi-arid to arid Great Basin Desert (our "high desert") is immediately to our east, a large area of the greater Great Basin. By the time winter storms pass east over the Sierra crest, much of the water has been "squeezed" out of them (orographic lift). Most of Truckee and the Martis Valley are in a basin of the Central Basin and Range ecoregion. Lake Tahoe is considered to be both in the Sierra Nevada Range and in the Great Basin. The Sierras are to the west and the Carson Range (including Mt. Rose) is to the east.

Local climate variations occur within these broader regions. Latitude, altitude and proximity to lakes all affect these variations. Local climate might depend on the direction of exposure, slope, location on a slope, ravines, ridge tops, existing vegetation, shade, rock formations, streets, buildings, soil depth, soil type and many more great and minute features. As we define variations with greater specificity we define "microclimates". Every town and every yard has microclimates. Microclimates may be as "micro" as the south facing wall next to your front door or as large as the west-shore of Lake Tahoe.

Snow is an excellent mulch that protects plants from winter's climatic extremes. Under deep snow, at the soil surface, temperatures are usually just above freezing through the deepest of winter. Without snow cover, plants are exposed to drying sun, wind, warm days and extremely cold nights. Many plant tissues will not survive rapid nor frequent freeze-thaw cycles. Higher relative humidity found at Donner Lake and in the Lake Tahoe Basin (as well as over the crest on the western slope) moderates temperature fluctuations and the extremes found in the drier Martis and Carson Valleys.

The essential tools you will need for determining the relative microclimate of your own garden are access to a weather forecast website (we primarily use noaa) and a **max/min recording thermometer** to compare your readings with the predicted temperatures for near-by weather stations. By regular comparisons with noaa's observations, you'll soon be able to predict (with some degree of accuracy) temperatures at your home based on noaa's forecasts.

The frost-free period of a region is usually considered the growing season. In parts of Truckee there are years with very frost-free nights in the entire 365-day year. Truckee's "**average last date of frost**" (when there is a "**less than 50% chance of frost**") is ~mid-June. Truckee's "frost-free period" (when there is less than a 15% chance of frost) is ~mid-July through mid-August. At one local weather station the average last frost is late July and the average first frost is early July. In the relatively humid Lake Tahoe basin, on the other hand, there may be years without any frosts in June, July and August.

Native plants from riparian (stream-side) habitats are often the easiest to grow in landscapes, having root systems better adapted to disturbance and to irrigation. Dry-land species may have much more temperamental root systems, susceptible to root rot, slow to adapt, and often with architectures extremely dependent upon specific soil microorganisms for their survival.

If you are looking for native plants because they are the easiest or most drought tolerant plants to grow, I would invite you to notice the beautiful **apple trees, lilac shrubs, hop vines, goji berry, hawthorne, roses, tansy, and bouncing-bet** thriving throughout downtown Truckee without care for some 150 years.

If you have native plants in your garden and want to protect them, **water very carefully**. There is a delicate balance of microbes in our native soil that is easily disturbed by excessive water. We recommend occasional “**simulated afternoon thundershowers**” as a guide for supplemental water of dryland species. We also recommend “simulated large browsing herbivores” as a guide for late-winter and summer pruning of many native shrubs (this is also called “hedging”). Most plants evolved side by side with the animals that have been eating them for tens of thousands of years.

Plants of the same Genus (i.e. *Penstemon*) or even the same Family (i.e. Ranunculaceae) will often share similar requirements. We look at plants within native botanical groups and observe their soil, light, exposure, and moisture requirements. We also look at ornamental plants from environments with conditions similar to ours (Rocky Mts., northern plains, high northeast, Alps, Caucasus, Mongolia, Siberia). Not many places share all of our challenges but many have some. From these comparisons, from literature and from lots of experimentation we create a larger (and more refined) plant palette for our Sierra gardens every year. “We’ve killed 1000’s of plants in our own gardens so our clients won’t have to”.

### Native Species List for Truckee and Tahoe Landscapes

This list is not the least all-encompassing. It is intended to provide a small palette of reliable native\* plant materials that are often available at local nurseries and that will thrive in Truckee. If it survives in Truckee, It will THRIVE in the Tahoe Basin. Some of the plants listed are only available in small sizes and some should only be planted in small sizes. Seed source (s.s.) can be very important for survival. Plants within a single species may vary widely in appearance, requirements and hardiness. We have found many native species that will not survive our dry cold if they come from populations growing in milder locations on the western slope of the Sierra.

Be sure to ask nursery staff about water requirements, wind tolerance, light requirements, soil needs, cold-hardiness, and ultimate growth for your specific location. We want everyone’s plants to thrive. Please ask for a copy of our Planting Instructions if we forget to give you one.

\*native in this list is a plant found in the wild within ~100 miles north or south of us.

- Key** x = available in containers  
 L = landscape suitable (transplants well and/or survives well in the landscape)  
 R = rarely available  
 S = plant only #1 or small seedlings for the best chance of survival  
 T = temperamental and challenging to grow

Trees	Scientific Name	Common Name
<b>Coniferous</b>		
x S,T	<i>Abies conolor</i>	white fir
x R,T	<i>Abies magnifica</i>	red fir
x L	<i>Calocedrus decurrens</i>	California incense cedar (local s.s.)
x L,R	<i>Juniperus occidentalis</i>	Sierra juniper
x L	<i>Pinus contorta var. murrayana</i>	Sierra lodgepole pine
x L	<i>Pinus monophylla</i>	single leaf piñon pine
x L	<i>Pinus jeffreyi</i>	jeffrey pine
x R,S,T	<i>Pinus lambertiana</i>	sugar pine
x L	<i>Pinus monticola</i>	western white pine
x L	<i>Pinus ponderosa</i>	ponderosa pine (east-side s.s.)
x L	<i>Pseudotsuga menziesii</i>	Douglas-fir (Rocky Mt. ssp. <i>glauca</i> is more winter-hardy)
x R,T	<i>Tsuga mertensiana</i>	western mountain hemlock
<b>Trees</b>		
<b>Deciduous</b>		
x L	<i>Populus tremuloides</i>	quaking aspen
x L	<i>Populus trichocarpa</i>	black cottonwood
x L	<i>Salix scouleriana</i>	Scouler’s willow
<b>Shrubs</b>		
<b>Upright</b>		
x L	<i>Acer glabrum</i>	mountain maple
x R,S	<i>Ageratina occidentalis</i>	western snakeroot
x L	<i>Alnus incana subsp. tenuifolia</i>	mountain alder
x L	<i>Amelanchier alnifolia</i>	serviceberry
x R,S,T	<i>Arctostaphylos patula</i>	greenleaf manzanita
x R,S,T	<i>Arctostaphylos viscida</i>	whiteleaf manzanita (mostly occurs on westside)
x L,R,S	<i>Artemisia arbuscula</i>	alpine sagebrush
x L	<i>Artemisia tridentata</i>	big sagebrush

x	R,S,T	<i>Castanopsis sempervirens</i>	bush chinquapin
x	R,S,T	<i>Ceanothus cordulatus</i>	whitethorn ceanothus
x	R,S,T	<i>Ceanothus velutinus</i>	snowbrush ceanothus
x	L	<i>Cercocarpus ledifolius</i>	curl-leaf mountain-mahogany
x	L	<i>Cornus sericea</i>	red-twig dogwood
x	L	<i>Dasiphora fruticosa</i>	shrubby cinquefoil
x	L	<i>Ericameria nauseosa</i>	rubber rabbitbrush
x	L	<i>Eriogonum umbellatum</i>	sulphur flower buckwheat
x	L	<i>Holodiscus discolor</i> var. <i>dumosus</i>	rock spiraea
		<i>Holodiscus microphyllus</i>	cliff spray
x	L,R	<i>Lonicera conjugialis</i>	twinflowering honeysuckle
x	L	<i>Lonicera involucrata</i>	twinberry honeysuckle
x	R,S,T	<i>Monardella odoratissima</i>	mountain pennyroyal
x	L	<i>Physocarpus capitatus</i>	Pacific ninebark
x	L,R,S,T	<i>Prunus andersonii</i>	desert peach
x	L,T	<i>Prunus emarginata</i>	bitter cherry
x	L,R	<i>Prunus subcordata</i>	Modoc plum (likely introduced in the 1800's)
x	L	<i>Prunus virginiana</i>	chokecherry
x	L,R,S,T	<i>Purshia tridentata</i>	bitterbrush
X	L,	<i>Quercus chrysolepis</i>	canyon live oak (hyb. w/ <i>Q. vacc.</i> )
x	L	<i>Quercus vaccinifolia</i>	Huckleberry oak
x	L,T	<i>Rhamnus rubra</i>	Sierra coffeeberry
x	L,R	<i>Rhamnus alnifolia</i>	alderleaf buckthorn
x	L,T	<i>Ribes cereum</i>	wax currant
	L,R	<i>Ribes montigenum</i>	mountain gooseberry
x	L	<i>Ribes nevadense</i>	Sierra currant
x	L,T	<i>Ribes roezlii</i>	Sierra gooseberry
x	L,R	<i>Ribes viscosissimum</i>	sticky currant
x	L	<i>Rosa woodsii</i>	Woods' rose
x	L	<i>Rubus parviflorus</i>	thimbleberry
x	L,R	<i>Salix eastwoodiae</i>	Eastwood willow
x	L	<i>Salix exigua</i>	sandbar willow
x	L,R	<i>Salix geyeriana</i>	silver willow
x	L	<i>Salix lasiandra</i>	Pacific willow
x	L	<i>Salix lasiolepis</i>	arroyo willow
x	L	<i>Salix</i> spp.	willow species
x	L	<i>Sambucus nigra</i> ssp. <i>cerulea</i>	blue elderberry
x	L	<i>Sambucus racemosa</i>	red elderberry
x	R	<i>Sorbus californica</i>	California mountain ash
	R	<i>Sorbus sitchensis</i>	western mountain ash
x	L	<i>Spiraea splendens</i> var. <i>splendens</i>	Sierra spiraea
x	L	<i>Spiraea douglasii</i>	rose spiraea
x	L,R	<i>Symphoricarpos oreophilus</i>	mountain snowberry
x	L,R	<i>Symphoricarpos rotundifolius</i>	roundleaf snowberry
x	L	<i>Symphoricarpos albus</i>	common snowberry
x	L,R,S,T	<i>Vaccinium membranaceum</i>	thinleaf huckleberry

## Shrubs

### Prostrate

x	R	<i>Arctostaphylos nevadensis</i>	pine mat manzanita
x	L	<i>Arctostaphylos</i> x <i>coloradoensis</i> (natural hybrid of <i>A. uva-ursi</i> and <i>A. nevadensis</i> )	mock bearberry
x	R,S,T	<i>Ceanothus prostratus</i>	prostrate ceanothus
x	L	<i>Juniperus communis</i>	dwarf juniper / alpine carpet juniper
x	R,S,T	<i>Symphoricarpos mollis</i>	creeping snowberry

**Perennials (many would be landscape suitable if available)**

x	L	<i>Achillea millefolium</i>	white yarrow
x	L	<i>Aconitum columbianum</i>	Columbian monkshood
x	L	<i>Agastache urticifolia</i>	horsemint
x	L,R	<i>Allium acuminatum</i>	tapertip onion
x	L	<i>Allium validum</i>	Pacific onion
x	L	<i>Allium spp.</i>	wild onion
	L,R	<i>Anemone multifida</i>	Pacific anemone
x	L	<i>Antennaria spp.</i>	pussytoes species
x	L	<i>Aquilegia formosa</i>	western red columbine
	L,R	<i>Aquilegia pubescens</i>	alpine columbine
	L	<i>Arnica spp.</i>	Arnica species
x	L	<i>Artemisia douglasiana</i>	California mugwort
x	L	<i>Asclepias speciosa</i>	showy milkweed
avail as bulb		<i>Brodiaea spp.</i>	Brodiaea
x	L	<i>Balsamorhiza sagittata</i>	arrowleaf balsamroot
avail as bulb		<i>Calochortus spp.</i>	Mariposa lily
x	L,R	<i>Caltha leptosepala ssp. howellii</i>	Howell's marsh marigold
	R,T	<i>Calyptidium umbellatum</i>	pussypaws
x	L	<i>Camassia quamash</i>	small camas
x	L	<i>Camassia leichtlinii ssp. leichtlinii</i>	large camas
x	L	<i>Castilleja miniata</i>	giant red Indian paintbrush
x	L	<i>Delphinium glaucum</i>	Sierra larkspur
x	L	<i>Equisetum hyemale</i>	western scouring rush horsetail
x	L	<i>Erysimum capitatum</i>	western wallflower
x	L	<i>Erythronium spp.</i>	fawn / trout / avalanche lily
x	L	<i>Fragaria vesca</i>	woodland strawberry
x	L	<i>Fragaria virginiana</i>	blue-leaf wild strawberry
x	L	<i>Fritillaria atropurpurea</i>	spotted mountain bells
x	L	<i>Geranium richardsonii</i>	Richardson's geranium
x	L	<i>Geum macrophyllum</i>	large leaved avens
x	L	<i>Geum triflorum</i>	prairie smoke
x	L	<i>Helenium bigelovii</i>	Bigelow's sneezeweed
x	L	<i>Heuchera micrantha</i>	alum root
x	L	<i>Ipomopsis aggregata</i>	skyrocket
x	L	<i>Iris missouriensis</i>	western blue flag
x	L	<i>Lewisia rediviva</i>	bitter root
x	L	<i>Lilium pardalinum</i>	leopard lily
x	L	<i>Lilium parvum</i>	Sierra tiger lily
x	R,S,T	<i>Lilium washingtonianum</i>	Washington lily
x	L	<i>Linum lewisii</i>	Lewis' blue flax
x	L	<i>Lupinus polyphyllus</i>	bog lupine
x	L	<i>Lupinus spp.</i>	lupine
x	L	<i>Mimulus guttatus</i>	yellow monkeyflower
x	L	<i>Mimulus lewisii</i>	Lewis' monkeyflower
		<i>Paeonia brownii</i>	Brown's wild peony
x	L	<i>Penstemon deustus</i>	rock penstemon
x	L	<i>Penstemon newberryi</i>	mountain pride
x	L	<i>Penstemon rydbergii</i>	Rydberg's penstemon
x	L	<i>Polemonium occidentale</i>	western polemonium
	R	<i>Polemonium pulcherrimum</i>	pretty Jacob's-ladder
x	L	<i>Potentilla spp.</i>	yellow cinquefoil
	L,R	<i>Primula jeffreyi</i>	Sierra shooting star
x	R	<i>Rhodiola integrifolia</i>	ledge stonecrop
x	L	<i>Rudbeckia occidentalis</i>	western coneflower
x	L	<i>Sedum spathulifolium</i>	broadleaf stonecrop
x	L	<i>Sidalcea spp.</i>	mallow
x	L	<i>Solidago spp.</i>	goldenrod
x	L	<i>Solidago canadensis</i>	Canada goldenrod
x	L	<i>Thalictrum fendleri</i>	Fendler's meadow rue
x	L,R,S,T	<i>Wyethia mollis</i>	mule ears

**From Southern Sierra and the White Mountains to Southern Cascades and the Siskiyou.**

("Native" in a slightly broader sense)

x	L	<i>Abies lasiocarpa</i>	sub-alpine fir
x	L	<i>Acer circinatum</i>	vine maple
x	L	<i>Asarum caudatum</i>	creeping wild ginger
	L,R,S,T	<i>Asarum hartwegii</i>	wild ginger
x	L	<i>Betula glandulosa</i>	resin birch
x	L	<i>Betula occidentalis</i>	western water birch
x	L	<i>Cupressus macnabiana</i>	Modoc cypress
x	L	<i>Crataegus douglasii</i>	Douglas' hawthorn
	R	<i>Juniperus osteosperma</i>	Utah juniper
x	L	<i>Penstemon eatonii</i>	Eaton firecracker
x	R	<i>Picea engelmannii</i>	Engelmann spruce
x	L	<i>Pinus balfouriana</i>	foxtail pine
x	L	<i>Pinus flexilis</i>	limber pine
x	L	<i>Pinus longaeva</i>	Great Basin bristlecone pine
		<i>Populus angustifolia</i>	narrow leaved cottonwood
x	L	<i>Populus fremontii</i>	Fremont poplar
x	L	<i>Prunus andersonii</i>	desert peach
x	L	<i>Prunus subcordata</i>	Modoc plum
x	L	<i>Ribes aureum</i>	golden currant
x	R	<i>Rubus ursinus</i>	California blackberry
x	R	<i>Sedum oblongeolatum</i>	oblongleaf stonecrop
x	L	<i>Sequoiadendron giganteum</i>	giant sequoia
x	R,S,T	<i>Sorbus scopulina</i>	Cascade mountain-ash
x	L	<i>Spiraea betulifolia</i> var. <i>lucida</i>	western white / shinyleaf spiraea
x	L	<i>Viburnum opulus</i> var. <i>americanum</i>	American cranberrybush

**Genera with species that are closely related to endemic species and/or are aesthetically and culturally similar to the native species.**

**Trees & Shrubs**

x	L	<i>Potentilla</i> spp.	cinquifol (herbaceous and woody)
x	L	<i>Salix</i> spp.	willow
x	L	<i>Sorbus</i> spp.	mt. ash
x	L	<i>Symphoricarpos</i> spp.	snowberry

**Perennials**

x	L	<i>Aconitum</i> spp.	monkshood
x	L	<i>Allium</i> spp.	onion
x	L	<i>Anemone</i> spp.	Anemone
x	L	<i>Aquilegia</i> spp.	columbine
x	L	<i>Arnica</i> spp.	Arnica
x	L	<i>Aster</i> spp.	Aster
x	L	<i>Caltha</i> spp.	marsh marigold
x	L	<i>Camassia</i> spp.	camas
x	L	<i>Dicentra</i> spp.	bleeding heart
x	L	<i>Erysimum</i> spp.	mat forming wallflower
x	L	<i>Geum</i> spp.	Geum
x	L	<i>Huchera</i> spp.	coral bells
x	L	<i>Penstemon</i> spp.	Penstemon
x	L	<i>Polemonium</i> spp.	Jacob's ladder
x	L	<i>Phlox</i> spp.	creeping Phlox
x	L	<i>Pulsatilla</i> spp.	pasque flower
x	L	<i>Sidalcea</i> spp.	mallow
x	L	<i>Thalictrum</i> spp.	meadow rue
x	L	<i>Tiarella</i> spp.	foam flower
x	L	<i>Trollius</i> spp.	globeflower

**Traditional / Historical Plants: Natives and introductions with a century or so of use in the Tahoe / Truckee area (Lodges, Taverns, Cabins, Homesteads.)**

**Trees**

x	L	<i>Acer</i> spp.	maple
x	L	<i>Calocedrus decurrens</i>	incense cedar

x	L	<i>Crataegus spp.</i>	hawthorne
x	L	<i>Juniperus scopulorum</i>	Rocky Mt. juniper
x	L	<i>Malus spp.</i>	apple & crabapple
x	L	<i>Picea spp.</i>	spruce
x	L	<i>Pseudotsuga menziesii ssp. glauca</i>	Rocky Mt. Douglas fir
x	L	<i>Sorbus aucuparia</i>	European mt. ash
x	L	<i>Betula occidentalis</i>	western water birch

#### **Shrubs**

x	L	<i>Clematis spp.</i>	Clematis (vine)
x	L	<i>Cornus sericea</i>	red-twig dogwood
x	L	<i>Pinus mugo var.</i>	mugo pine
x	L	<i>Rosa 'Blaze'</i>	climbing red rose
x	L	<i>Rosa harrisonii</i>	Harrison's yellow rose
x	L	<i>Rosa rugosa</i>	tomato rose
x	L	<i>Rose spp.</i>	hedge and shrub roses
x	L	<i>Rubus parviflorus</i>	thimbleberry
x	L	<i>Spiraea spp.</i>	Spiraea
x	L	<i>Syringa vulgaris</i>	lilac

#### **Perennials**

x	L	<i>Alcea rosea</i>	hollyhock
x	L	<i>Aquilegia spp.</i>	columbine
x	L	<i>Campanula spp.</i>	bluebell
x	L	<i>Crocus spp.</i>	crocus
x	L	<i>Delphinium spp.</i>	Delphinium
x	L	<i>Dianthus spp.</i>	pinks
x	L	<i>Dicentra spp.</i>	bleeding heart
x	L	<i>Digitalis spp.</i>	foxglove
x	L	<i>Fragaria spp.</i>	strawberry
x	L	<i>Humulus lupulus</i>	hopvine
x	L	<i>Leucanthemum × superbum</i>	Shasta daisy
x	L	<i>Lilium spp.</i>	lily
x	L	<i>Narcissus spp.</i>	jonquil
x	L	<i>Paeonia spp.</i>	peony
x	L	<i>Papaver orientalis</i>	Oriental poppies
x	L	<i>Phlox paniculata</i>	summer phlox
x	L	<i>Rheum x hybridum</i>	rhubarb
x	L	<i>Rudbeckia hirta</i>	black-eyed Susan
x	L	<i>Rudbeckia laciniata</i>	lace-leaf rudbeckia
x	L	<i>Saponaria spp.</i>	bouncing-bet, rock-soapwort
x	L	<i>Viola spp.</i>	violets

# Why Grow Native Plants?

*from California Native Plant Society (cnps)*

**Promote Biodiversity** - Human development through agriculture and urbanization has drastically reduced native plant communities in California. By growing native plants in our gardens, we are restoring some of the natural biodiversity of our area. Many species are dependent on the habitat provided by native vegetation and taken in aggregate, home plantings can enhance the wildlife populations of an area.

**Reduce the use of water** - Native plants are adapted to the unique climatic conditions of their growing area and once established they require minimal supplemental irrigation. When we grow plants found in our resident plant community, we use far less water than traditional garden landscapes. Using drought tolerant natives in our California gardens conserves a scarce natural resource and saves money on water costs; it's a sensible choice.

**Reduce the use of pesticides** - Many native plants are not severely affected by insect pests and diseases that afflict traditional ornamentals. Often, natives have adapted defense mechanisms to pests common in their habitats or have a high tolerance for pest damage. As a result, less pesticide is required to maintain native plant gardens in good condition. Decreasing or eliminating pesticide use in the garden also promotes biodiversity, reduces our exposure to toxic substances and saves money. Again, native plants are a sensible choice.

**Enjoy a low maintenance garden** - Spend more time enjoying your garden and less time maintaining it. Natives tend to grow more slowly than traditional ornamentals and require less work at garden chores such as mowing, pruning, fertilizing and dividing. California native plants are adapted to a wide variety of growing conditions and fine native plant choices exist for virtually any garden environment. The biodiversity promoted by a native plant garden will reward the owner with satisfying experiences of discovery and observation, not only of the plants themselves, but a host of other species... birds, insects, mammals, etc. A good native plant garden complements the indigenous habitat and by growing plants found in our resident plant community, we bring in all sorts of nearby creatures dependent on that habitat. In a small but significant way, we as native plant gardeners begin to help sustain an ecosystem and secure a connection with the natural world that is infinitely more satisfying than mowing the lawn.

## Contact California Native Plant Society

Browse the web site at : [www.cnps.org](http://www.cnps.org) or e-mail to: [cnps@cnps.org](mailto:cnps@cnps.org)

fax to: **916-447-2727** or phone to: **916-477-2677**

to join or to send them a letter via U.S. mail:

**California Native Plant Society**

**1722 J Street, Suite 17**

**Sacramento, CA 95814**

**Calscape - Our goal at Calscape** is to help Californians restore nature and save water one garden at a time. We do this by showing people which plants are really native to any location in the state, helping them figure out which ones they want, and where to buy them and how to grow them.

California is an extremely environmentally diverse state. Different California native plants evolved to grow in areas of the state with very different temperatures, rainfall levels, summer drought periods, air moisture levels, and marine influences, among other factors. Because of this, it's always best to grow California native plants in the areas in which they evolved. They are easier to grow, healthier and require little or no artificial irrigation when they are planted in an area in which they evolved and naturally belong.

True native plants are the foundation for nature restoration. They attract butterflies, birds, reptiles, amphibians, small mammals, bees and other pollinators that evolved with those plants, and over time create a working natural ecosystem, without pesticides, and without artificial fertilizers. The butterfly and bird life in particular in a true natural garden is often spectacular. With the right plants, it's not hard for homeowners to create small patches of nature throughout even the developed part of the state. <https://calscape.org/search.php>

**Calflora** - is a website you can use to learn about plants that grow wild in California (both native plants and weeds); and a nonprofit organization responsible for providing this service. Calflora is run by the team. Information in Calflora comes from many sources: the Consortium of California Herbaria, iNaturalist, public agencies, nonprofits, scientists, private donors, and you!

**Find Out About a Plant** - You can enter the common or scientific name of a plant to find out about it. Or, use the name wizard to just enter part of a name and have the wizard make suggestions. The result is an illustrated table of plants that match the name you entered. Click one of the plants in the table to learn the details about that plant — in particular, where it's been observed in California. -

**Find Out What Plants Grow in a Place** - You can also choose a place and get an illustrated list of the plants that grow there. The application that does this is called **What Grows Here?**. You define "here" by picking a place on the map, or by choosing a park boundary, place name, etc. Refine "here" by zooming in and out of the map, or drawing a polygon. Then click SEARCH to get an illustrated list of plants known to grow "here." - Try it out! - <https://www.calflora.org/entry/wgh.html>

\*B. A. D. Hetrick - Department of Plant Pathology, Kansas State University, Throckmorton Hall, 66506-5502, Manhattan, Kansas, USA

# Recipes

## Chokecherry Jelly

**Prep Time:** 1 hr 0 min

**Total Time:** 2 hr 0 min

**Makes:** about 6 (1-cup) jars.

3 cups of prepared juice (about 4 lb. fully ripe chokecherries)

1 cup water

1/4 cup fresh lemon juice

1 box MCP Pectin

1/4 tsp. butter, margarine or oil (optional)

4-1/2 cups sugar, measured into a separate bowl (See tip below.)

**BRING** boiling-water canner, half-full with water, to simmer. Wash jars and screw bands in hot, soapy water; rinse with warm water. Pour boiling water over flat lids in a saucepan off the heat. Let stand in hot water until ready to use. Drain well before filling.

**CRUSH** chokecherries thoroughly, one layer at a time. Place in a saucepan. Add water and simmer for 15 minutes. Place 3 layers of damp cheesecloth or jelly bag in a large bowl. Pour prepared fruit into cheesecloth. Tie cheesecloth closed; hang and let drip into bowl until dripping stops. Press gently. Measure exactly 3 cups of juice into a 6- or 8-quart sauce-pot. Add lemon juice.

**STIR** pectin into juice in sauce-pot. Add butter to reduce foaming, if desired. Bring mixture to full rolling boil (a boil that doesn't stop bubbling when stirred) on high heat, stirring constantly.

**STIR** in sugar quickly. Return to full boil and boil for exactly 2 minutes, stirring constantly. Remove from heat. Skim off any foam with a metal spoon.

**LADLE** quickly into prepared jars, filling to within 1/8 inch of tops. Wipe jar rims and threads. Cover with two-piece lids. Screw bands tightly. Place jars on an elevated rack in the canner. Lower rack into canner. Water must cover jars by 1 to 2 inches; add boiling water if needed. Cover; bring water to a gentle boil. Process 5 minutes. Remove jars and place upright on a towel to cool completely. After the jars cool, check seals by pressing the middle of the lid with your finger. (If the lid springs back, the lid is not sealed and refrigeration is necessary.)

## Elderberry Jelly

**Prep Time:** 45 min

**Total Time:** 45 min

**Makes:** about 5 (1-cup) jars.

3 cups prepared juice (buy about 6 qt. or 3 lb. fully ripe elderberries)

1/4 cup fresh lemon juice

1 box SURE.JELL Fruit Pectin

1/2 tsp. butter or margarine (optional)

4-1/2 cups sugar, measured into separate bowl

**BRING** boiling-water canner, half full with water, to simmer. Wash jars and screw bands in hot soapy water; rinse with warm water. Pour boiling water over flat lids in a saucepan off the heat. Let stand in hot water until ready to use. Drain well before filling.

**REMOVE** and discard large stems from elderberries. Crush fruit thoroughly; place in saucepan. Cook until juice starts to flow, stirring occasionally. Reduce heat to low, cover and simmer for 15 minutes, stirring occasionally. Place 3 layers of damp cheesecloth or jelly bag in a large bowl. Pour prepared fruit into cheesecloth. Tie cheesecloth closed; hang and let drip into bowl until dripping stops. Press gently. Measure exactly 3 cups of prepared juice into a 6- or 8-quart sauce-pot. (If needed, add up to 1/2 cup water for exact measure.) Stir in lemon juice.

**STIR** pectin into juice in sauce-pot. Add butter to reduce foaming, if desired. Bring mixture to full rolling boil (a boil that doesn't stop bubbling when stirred) on high heat, stirring constantly. Stir in sugar. Return to full rolling boil and boil for exactly 1 minute, stirring constantly. Remove from heat. Skim off any foam with a metal spoon.

**LADLE** immediately into prepared jars, filling to within 1/8 inch of tops. Wipe jar rims and threads. Cover with 2-piece lids. Screw bands tightly. Place jars on an elevated rack in the canner. Lower rack into canner. (Water must cover jars by 1 to 2 inches. Add boiling water, if necessary.) Cover; bring water to a gentle boil. Process 5 minutes. Remove jars and place upright on a towel to cool completely. After the jars cool, check seals by pressing the middle of the lid with your finger. (If the lid springs back, the lid is not sealed and refrigeration is necessary.)

## Gooseberry Jam

**Prep Time:** 45 min

**Total Time:** 2 hr min

**Makes:** about 10 (1-cup) jars

5-1/2 cups prepared fruit (about 2-1/2 qt. fully ripe gooseberries)

1 box SURE.JELL Fruit Pectin

1/2 tsp. butter or margarine (optional)

7 cups sugar, measured into a separate bowl (See tip below.)

**BRING** boiling-water canner, half-full with water, to simmer. Wash jars and screw bands in hot, soapy water; rinse with warm water. Pour boiling water over flat lids in a saucepan off the heat. Let stand in hot water until ready to use. Drain well before filling.

**REMOVE** blossom and stem ends from fruit. Finely chop or grind berries. Measure exactly 5-1/2 cups of prepared fruit into 6- or 8-qt. sauce-pot.

**STIR** pectin into fruit in sauce-pot. Add butter to reduce foaming, if desired. Bring mixture to full rolling boil (a boil that doesn't stop bubbling when stirred) on high heat, stirring constantly.

**STIR** in all sugar quickly. Return to full rolling boil and boil for exactly 1 minute, stirring constantly. Remove from heat. Skim off any foam with a metal spoon.

**LADLE** quickly into prepared jars, filling to within 1/8 inch of tops. Wipe jar rims and threads. Cover with two-piece lids. Screw bands tightly. Place jars on an elevated rack in the canner. Lower rack into canner. Water must cover jars by 1 to 2 inches; add boiling water if needed. Cover; bring water to a gentle boil. Process 10 minutes. Remove jars and place upright on a towel to cool completely. After the jars cool, check seals by pressing the middle of the lid with your finger. (If the lid springs back, the lid is not sealed and refrigeration is necessary.)

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