

Landscaping with Edible Colorado Native Plants

This list was developed for a presentation given to members of the Front Range Wild Ones on March 4, 2014 by Brian Elliott. The list is not exhaustive but provides a number of plant choices for edible native landscapes in Colorado. It must be emphasized, however, that the use of wild foods can be a hazardous undertaking, particularly if one is unfamiliar with plant identification. One must be certain of species identification prior to using native plant species for food!

If wild plant material is gathered I recommend following the Colorado Native Plant Society's guidance on Ethics of Collecting Native Plants available at www.conps.org/pdf/About_Us/etics_of_collecting.pdf.

TREES AND SHRUBS			
<i>Scientific Name</i>	Common Name	Habit	Edibility
<i>Amelanchier alnifolia</i> and <i>A. utahensis</i>	Saskatoon serviceberry, Utah serviceberry	medium shrubs to small trees	The small pomes can be eaten raw, dried, or pounded and used in pies, cakes, jellies, sauces, breads, and wine. Dried and pounded fruit was also stored in large loaves, some weighing as much as fifteen pounds.
<i>Crataegus</i> spp.	hawthorn	small trees	The fruit can be used fresh or dried in jams, jellies, pies, sauces, or for wine. The seeds, however, should not be eaten. The fruit can also be cooked, mashed, de-seeded, dried, and then ground into cakes or loaves. These loaves can be used as meal or added to flour. Cooking improves the usually mealy and insipid fruit. Flowers can be used in salads, desserts, and drinks. Colorado species include <i>Crataegus erythropoda</i> (cerro hawthorn), <i>Crataegus rivularis</i> (river hawthorn), <i>Crataegus macrantha</i> var. <i>occidentalis</i> (big-thorned or western hawthorn), <i>Crataegus saligna</i> (willow hawthorn), and the rare <i>Crataegus chrysocarpa</i> (fireberry hawthorn).
<i>Mahonia repens</i>	Oregon grape	low evergreen shrub	Berry can be used raw, dried, in jelly, for wine, or cooked as a sauce. A beverage can be made from mashed berries mixed with sugar and water. Note that the roots, foliage, and stems are inedible, bitter, and have been used medicinally.
<i>Malus ioensis</i>	prairie crabapple	small tree	The fruit is harsh and astringent (similar to many other crabapples) and is best used cooked for jellies, preserves, cider, and pies. Native to Great Plains states adjacent to Colorado.
<i>Opuntia macrorhiza</i>	prickly pear	mounded shrub	1) The fruit is edible raw or dried, in jams and jellies, as a sauce, and in many other ways. Fruit quality varies, with some species bearing fleshier and more palatable fruit. The skin, glochids, and seeds should first be removed. Briefly boiling the fruit facilitates removal of the skin, spines, and glochids.

Landscaping with Edible Colorado Native Plants

			<ol style="list-style-type: none"> 2) Seeds can be dried and used whole or dried and ground to meal for thickening soups and stews. 3) Flowers can be variously cooked and used with other foods. 4) Flower buds can be despined and then roasted, dried, and used in soups and stews. 5) Pads can be roasted, peeled and fried, or boiled first and then peeled and fried. The young pads emerging in early spring are best since they lack spines. Pads with spines can be held with tongs over a flame or coals to singe the spines and glochids. They may also be boiled until soft and then scraped with a knife to remove the spines and glochids.
<i>Pinus edulis</i>	pinyon pine	small tree	Seeds can be eaten raw, dried and roasted, or ground into meal. The meal is used for cakes, gruel, and thickening soups.
<i>Ribes</i> spp.	currant, gooseberry	shrub	Berry can be eaten raw or used in pies, jams, and sauces. The flowers can also be eaten raw. Gooseberries have stiff bristles on the fruit, while currant fruit is smooth. Several species are native to Colorado. <i>Ribes aureum</i> (golden currant) is probably best for berries. <i>Ribes inerme</i> (whitestem currant) and <i>Ribes lacustre</i> (bristly currant) are other options.
<i>Rosa woodsii</i>	woods rose	small shrub	Wild roses have a variety of uses, including: <ol style="list-style-type: none"> 1) The rose hip can be used raw, stewed, dried, for sauces, and in jams. The hip is best after a light frost. 2) Leaves can be used for tea. 3) Petals can be eaten raw, put in salads, or dried for tea.
<i>Prunus</i> spp.	cherry, chokecherry, plum	small tree or large shrub	Fleshy drupe can be eaten raw or dried and also used in jam, jelly, bread, pie, cooked for a sauce, and used for wine. <ol style="list-style-type: none"> 1) Fruit of <i>Prunus virginiana</i> (chokecherry) was sun dried, pounded (with the pits), then formed into cakes for storage. It is astringent and best used as jelly or jam. 2) Fruit of the cherries and plums can be used in the same manner as cultivated cherries but they smaller and sometimes more astringent. Native Colorado species include: <i>Prunus americana</i> (American plum), <i>Prunus besseyi</i> (western sandcherry), and <i>Prunus pensylvanica</i> (pin cherry).

Landscaping with Edible Colorado Native Plants

<i>Rubus</i> spp.	raspberry	small shrubs	There are several native species that produce tasty fruit that can be used in the same manner as cultivated varieties. Do not be fooled by <i>Rubus deliciosus</i> (Boulder raspberry, delicious is a misnomer) and <i>Rubus parviflorus</i> (thimbleberry). Neither produces fleshy or palatable fruit.
<i>Peraphyllum ramosissimum</i>	wild crabapple or squaw apple	medium-sized shrub	The fruit can be eaten raw or dried. It can also be cooked for pies, sauces, jellies, etc. Raw fruit may be somewhat bitter, particularly when not fully ripe.
FORBS AND GRAMINOIDS			
<i>Achnatherum hymenoides</i> , previously <i>Oryzopsis hymenoides</i>	Indian ricegrass	perennial graminoid	Seed should be mixed with coals and shaken to singe and remove the hairs, glumes, and awns. Seed can then be ground and mixed with flour, put in soup, or used for gruel. With its large seeds Indian ricegrass was an important food source for southwestern tribes.
<i>Allium</i> spp.	onion	perennial forb	Bulbs and leaves can be used in the same manners as cultivated onions. Dr. Weber lists eleven species in his East and West Slope floras. <i>Allium cernuum</i> (nodding onion) and <i>Allium schoenoprasum</i> (wild chives) are both good candidates.
<i>Chenopodium</i> spp.	goosefoot, lambsquarter	annual forb	Seeds can be threshed and then boiled, mashed, ground for gruel, mixed with flour, or parched. Young leaves and shoots can be eaten raw in salad, boiled, or fried with other vegetables. A few cautions regarding <i>Chenopodium</i> : 1) Do not eat seeds raw due to the presence of saponins (a bitter, soap-like compound). 2) Avoid the non-native species <i>Chenopodium ambrosioides</i> (Mexican tea) and <i>Chenopodium botrys</i> (Jerusalem oak). Both are medicinal herbs. 3) Finally, <i>Chenopodium</i> is a colonizer of disturbed ground and can become weedy!
<i>Epilobium angustifolia</i>	fireweed	perennial forb	Fireweed has seen a variety of uses, including: 1) Young stems and leaves have been eaten when raw or boiled. 2) Leaves have been used fresh or dried for tea, either alone or mixed with black tea.

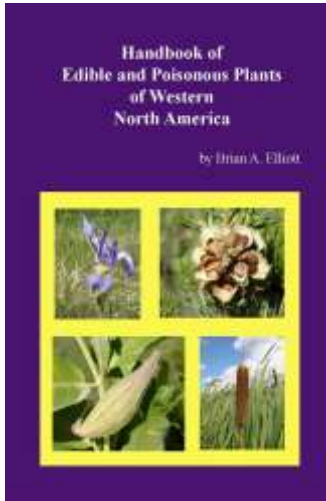
Landscaping with Edible Colorado Native Plants

			<p>3) Shoots can be boiled, steamed, or stir-fried. 4) Immature inflorescence can be used in salads or cooked. 5) Pith of the central stem can be eaten raw or used in soups and stews. 6) Roots of <i>E. angustifolium</i> were reportedly eaten in AK. 7) Finally, the outer stem provides fiber for cordage.</p> <p>Fireweed grows well in disturbed areas.</p>
<i>Perideridia gairdneri</i>	wild caraway, Yampa	perennial forb	<p>Roots can be eaten raw, boiled, fried, baked, or dried. Seeds may be used as seasoning, or parched and dried for mush.</p> <p>Yampa has a long history of food use. However, it is a member of the umbel family (Apiaceae) and has many highly toxic relatives!</p>
<i>Fragaria vesca</i> ssp. <i>bracteata</i> and <i>Fragaria virginiana</i> ssp. <i>glauca</i>			<p>The fruit can be used raw or cooked in breads, jams, jellies, fruit leather, etc. Leaves have been dried for tea.</p>
<i>Helianthus</i> , annual species	sunflower	annual forbs	<p>Sunflowers have a myriad of uses including:</p> <ol style="list-style-type: none"> 1) Seeds may be eaten raw, roasted, or roasted and ground. 2) Seeds can be used for bread or gruel after the hulls have been removed, although unshelled seeds have also been ground into meal. To remove seed from hull chop coarsely, place in water and stir. The nutmeat will reportedly settle out while the hulls will float. 3) Seeds may be boiled and the oil skimmed from the surface of the water. 4) Seeds or shells can be roasted and used for a coffee substitute. 5) Young heads can be boiled like brussel sprouts. 6) Flowers can be eaten raw. <p>Native Colorado annual species include the ubiquitous <i>Helianthus annuus</i> (common sunflower) and <i>Helianthus petiolaris</i> (prairie sunflower).</p>
<i>Helianthus maximilianus</i>	Maximilian sunflower	perennial forb	<p>In addition to producing edible seeds, Maximilian sunflower also produces thickened tuber-like roots that can be collected in the fall and eaten raw, boiled, fried, or roasted.</p>

Landscaping with Edible Colorado Native Plants

<i>Mentha arvensis</i>	wild mint	perennial forb	<p>Leaves can be used in raw in salads and fresh or dried for tea. It can also be used for flavoring other foods and making jelly. If leaves are dried for later use low temperatures should be used to preserve the volatile oils.</p> <p>Several other Colorado species of mint could also be considered in the landscape, including <i>Monarda fistulosa</i> (beebalm) and <i>Hedeoma drummondii</i> (false pennyroyal).</p>
<i>Sagittaria latifolia</i>	arrowhead, wapato	perennial forb	<p>Tubers may be eaten raw, roasted, fried, or boiled. They can also be boiled and then dried for storage. The dried tubers can be ground for meal or flour if desired. Collecting tubers can be a challenge since they may be up to a foot deep in the soil.</p>
<i>Typha latifolia</i>	cattail	perennial forb	<p>Cattails have been used in a variety of ways, including:</p> <ol style="list-style-type: none"> 1) Shoots are edible when 4–16 inches long. Remove the outer leaves and use inner leaves raw, as a potherb, or in soups and stews. 2) The unripe inflorescence can be steamed or roasted. 3) The young flower stalks can be boiled. 4) Flowers may be stripped and mixed with flour or dried. 5) Pollen can be mixed with flour and baked, fried, mixed with water and steamed, and used in soups or stews. It can also be mixed with honey or other syrups. 6) In fall the starchy core of rootstocks are edible raw, boiled, baked, roasted, or dried. However, they are unpalatable unless cooked properly.
<i>Viola</i> spp.	violet	perennial forb	<p>Leaves can be eaten raw, boiled as a potherb, or used in soups. The leaf can also be used fresh or dried for tea. Flowers are good raw in salads or candied. The palatability varies between species.</p> <p>Note the following cautions when using violets:</p> <ol style="list-style-type: none"> 1) Roots should not be eaten as they are emetic (i.e. cause vomiting), 2) Some unspecified species of yellow-flowered violets are reportedly cathartic (causing diarrhea), and 3) There is one report of the cultivated <i>Viola tricolor</i> (Johnny jumpup) being toxic.

Landscaping with Edible Colorado Native Plants



Brian Elliott has had a life-long interest in plants and ethnobotany. He has worked as a landscaper, nurseryman, native seed collector, Forest Service botanist, and is currently a self-employed botanical consultant focusing on rare plant conservation in the western United States. In 2009, he published his first book, the *Handbook of Edible and Poisonous Plants of Western North America*. Available on Amazon.

Landscaping with Colorado Edible Plants References

City of Fort Collins Natural Areas Program. 2007. Fort Collins Native Plants.

<http://www.fcgov.com/naturalareas/pdf/nativepl.pdf>

Colorado Native Plant Society's Statement: Ethics of Collecting Native Plants. 2001.

www.conps.org/pdf/About_Us/etics_of_collecting.pdf.

Colorado Native Plant Society. 2008. Suggested Native Plants for Gardening and Landscape Use on the Front Range of Colorado. www.conps.org/pdf/Horticulture%20&Restoration/Suggested%20Native%20Plants_final.pdf

Colorado State University Extension. 2008. Native Shrubs for Colorado Landscapes. <http://www.ext.colostate.edu/pubs/garden/07422.html>

Colorado State University Extension. 2014. Native Trees for Colorado Landscapes. <http://www.ext.colostate.edu/pubs/garden/07242.html>

Colorado State University Extension. 2008. Native Trees for Colorado Landscapes. <http://www.ext.colostate.edu/pubs/garden/07421.pdf>

Elliott, Brian. 2009. Handbook of Edible and Poisonous Plants of Western North America. EEC, Laramie, Wyoming.

Front Range Wild Ones. Accessed 2015. A Short List of Front Range Native Wildflowers and Grasses.

<https://frontrangewildones.files.wordpress.com/2013/02/frontrangewildones20nativesforyourgarden.pdf>

PlantNative. 2015. Native Plant List for Nebraska, Kansas, and eastern Colorado. <http://www.plantnative.org/rpl-neks.htm>

Landscaping with Edible Colorado Native Plants

Colorado Native Plant Society Ethics of Collecting Native Plants

The Colorado Native Plant Society (CONPS) encourages the ethical collection and use of Colorado and regional native plants. Because of the present lack of commercial availability of many potentially useful species, greater use, as well as the reestablishment of native plants, requires that seed and/or cuttings of certain species be judiciously collected from plants in their native habitats.

The hardiness and adaptability of many native plants makes them ideal for use in the Colorado landscape. They have evolved over long periods of time in the soils and harsh climate that characterize the Rocky Mountain region. We must, however, recognize the sensitivity of these plants as well as the environments in which they grow. Adverse ecological effects of escaped exotics or misplaced natives can occur either through the competitive replacement of native species or through the alteration of the genetic composition of native plant populations. Furthermore, vegetative communities are being encroached upon by urban growth and becoming reduced at an increasing rate.

The CONPS has developed the following guidelines for the ethical collection of native plant seeds and cuttings so as to maintain healthy plant communities:

- 1. Become informed** about Colorado and other Rocky Mountain species that are Threatened, Endangered, Sensitive, or otherwise of Special Concern. Such plants should **never** be collected unless special circumstances exist, such as recommendation for public salvage (see #9 below).
- 2.** Collect **only** if you are accompanied by, or are a trained individual who is knowledgeable of species being collected, is knowledgeable of the proper methods of collecting and can later propagate the plant material collected.
- 3.** Collect seeds or take cuttings; **do not collect whole plants** unless salvage recommendations have been made.
- 4.** Keep good records of the location, habitat and the geography of the environment in which a collection is made. Transfer this information whenever the plant materials change hands.
- 5.** Always consider preparing a voucher specimen or deposit in a recognized, publicly accessible herbarium, so as to provide absolute identification of the plants collected.
- 6.** Avoid propagating species that have shown tendencies to compete with and possibly replace other plants.
- 7.** For large-scale rehabilitation, revegetation and projects that specify large plantings of "wildflowers," use plant materials derived from nearby sources of similar habitat. CONPS stresses the importance of protecting the genetic integrity of the surrounding native species and natural vegetation. The introduction of non-local genetic material may irrevocably alter the native flora.
- 8. Be sensitive** to any area in which you collect plant materials. Do not trample areas outside of designated trails, or disturb the environment by over-collecting from a single species. Use good judgment if only a few plants are available. The standard rule is to leave no trace of your visit, which may mean passing up a plant for seed or cuttings if it is not abundant or if the stand is not in good health.
- 9.** When special circumstances exist in which an area is to be disturbed such that plants will inevitably be destroyed, salvage collection of those plants (whole, but only if plant is known to transplant) is encouraged. Collection should not be made in anticipation of possible destruction that could occur months or years in the future. The same records (see #4 above) of plants should be made at the time of plant collection, and should document the circumstances leading to the salvage.

The Colorado native flora is one of our most valuable natural resources. We have the technology and knowledge to use it wisely and the ethical responsibility to protect it.

Revised 5/2001