



Specialty crops: Growing medicinal herbs, culinary herbs and spices in Wyoming

The United States Department of Agriculture has a great interest in certain types of plants—called specialty crops—that can potentially increase the nutrition, health, and vitality of people.

In Wyoming, many specialty crops can be grown commercially, and some specialty crops are even found growing wild; however, growing wild does not necessarily mean growing with abundance. Exercise care, wildcrafting (harvesting wild plants) can lead to decimation of local native plant communities, but the plants growing in the wild are good indicators they may thrive when cultivated.

Why medicinal herbs

So, what is a specialty crop and what does this mean for growers in Wyoming? According to the USDA, specialty crops must be cultivated or managed and used by people for food, medicinal purposes, and/or aesthetic gratification. While the crop portion of this definition might lead many to think about fruits and vegetables, there are actually many other categories recognized by the USDA. Two of the less common categories are medicinal herbs and culinary herbs and spices.

Native medicinal herbs in Wyoming are surprisingly plentiful. People often ask, “What is a medicinal herb?” Simply put, it is a plant that has been recognized by some group, Native Americans, or maybe an early immigrant homesteading clan, as helping with a medical condition.

Medicinal plants are diverse depending on the exact definition. This can range from dandelions introduced from Europe or elderberries (*Sambucus* spp.) native to Wyoming. The USDA has developed a list of what it considers medicinal plants or culinary herbs and spices. Please visit bit.ly/usda-specialty-crops.

Medicinal herb uses

Some common examples of uses might include dandelion as a spring tonic or elderberry for its high antioxidants. Medicinal plants can also be grown to simply add fragrance to a garden.

Many medicinal herbs, such as echinacea and valerian, are beautiful perennials and, once established, are easy to grow. Others, like sweetgrass (*Hierochloe odorata*), smell wonderful when brushed up against in the yard. Because

these plants require very few inputs for growing, they are perfect for low maintenance landscapes.

Other plants, like Osha (*Ligusticum porteri*), have been overharvested in their native habitats; sometimes the appeal to grow them adds to their dwindling population. Sustainable growing and production can help alleviate stress to native populations. Then there are plants like wild mint and wild oregano, both with medicinal and culinary traits, that are great to add to meals. They taste great and are a great conversation starter.

It is sometimes difficult to know where to begin learning about medicinal herbs, but books tend to be a great place to start. Robert Dorn's *Vascular Plants of Wyoming* may seem a bit technical at first glance but is a warehouse of great information specific to Wyoming. Other books, such as Kelly Kindscher's *Medicinal Plants of the Prairie*, Michael Moore's *TK* or Briana Wiles *Mountain States Medicinal Plants*, allow a reader to identify medicinal plants. They will give you an idea of plants preferences—sunny, rocky, streamside—then make a list of the plants you might like to try.

Caution with medicinal herbs

Medicinal plants should not be consumed as an alternative to professional medical help. Any serious medical condition is best treated by trained medical staff. The plants in the USDA's list of specialty crops can be harvested and then sold to trained professionals and commercial producers of herbal products. Home use can occur for growers, but only for those with extensive knowledge regarding the use of medicinal plants and should not be used by those with limited knowledge.



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Here is more medicinal plant information

If interested in learning more about native plants, check out:

Mountain States Medicinal Plants. 2018. Wiles, Briana. Timber Press Inc. Portland, OR.

Vascular Plants of Wyoming. 1992. Dorn, Robert. Mountain West Publishing. Cheyenne, WY.

These books are useful for more information about traditional herbal uses:

The Organic Medicinal Herb Farmer. 2015. Carpenter, Jeff and Melanie. Chelsea Green Press. White River Junction, VT.

Medicinal Herbs, A Beginner's Guide. 2012. Gladstar, Rosemary. Storey Publishing. North Adams, MA.

Medicinal Wild Plants of the Prairie. 1992. Kelly Kindscher. University Press of Kansas. Lawrence, KS.

Medicinal Plants of the Mountain West. 1979. Michael Moore. Museum of New Mexico Press. Santa Fe, NM.

These are reliable companies for seeds and plants:

Strictly Medicinal Herbs. strictlymedicinalseeds.com. Just a note—they really aren't strictly medicinal; they have culinary herbs and vegetables, too.

Prairie Moon Nursery. www.prairiemoon.com

Sourcing plants

Sourcing plants can be tricky. Digging up wild plants from public spaces is not recommended and in many cases illegal without a permit. Starting plants from seeds is better or looking for plants in local nurseries or online. Strictly Medicinal in Williams, Oregon, strictlymedicinalseeds.com, specializes in native seeds and plants. You might also consider a neighbor who may have plants they would let you collect. Plants like wild licorice and elephant head in meadows are most often not desirable for livestock to eat but are better suited for a medicinal herb gardener.

Establishing plants

Consider the climate and physical attributes of your garden space when deciding where to plant. Are the soil, climate, and aspect a good match? Some plants, such as yarrow, are pretty happy wherever they are planted, but others are much more difficult. Soil may need amending before planting; it's best to do a soil sample to know for sure. More information can be found under the composting tab at www.uwyo.edu/barnbackyard.

Some gardeners like to add a little soil from an established medicinal or culinary herb garden to inoculate the soil with mycorrhizae. Mycorrhizae are tiny fungi that inhabit the roots of specific plants. Plants and mycorrhizae have a symbiotic relationship. The plant provides the mycorrhizae with carbohydrates and in return the mycorrhizae help increase the surface area of roots and increase the uptake of nutrients for plants.

Wyoming winds

It's Wyoming, so of course we have wind. Establishing a wind barrier can be an important component of

helping plants grow. The wind barrier doesn't have to be up indefinitely, but it is critical to let seedlings or small plants have some time to establish before they get blasted by the wind. Wind disturbs the microenvironment around plants. Just like putting a coat on a school child, putting a windbreak around young plants keeps them healthy, safe, and warm. The windbreak can be as simple as a tomato cage with burlap on the windward side, a tire, or a pallet. Even a shake shingle can serve as a windbreak.

To help get started, page 19 has a short list of favorite medicinal herbs and culinary herbs and spices. This list was developed through personal experience and a lot of time growing and propagating plants at high altitudes in Wyoming. The table outlines attributes and information for many common medicinal herbs and spices.

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Author **Celeste Havener** of Centennial would like to thank the Wyoming Department of Agriculture, especially Ted Craig, for help with funding for a specialty crop grant to study growing and marketing wild medicinal herbs. "If you have a passion for a particular specialty crop (see the link earlier in this article), please contact the WDA to see if you might qualify for a small grant," she says. "They are easy to work with, willing to help small producers find funding for qualified studies, and looking for new venues for Wyoming farmers."



	Scientific name	Common name	Ease of growing	Prefers	Perennial	Additional
	<i>Achillea millefolium</i>	Yarrow	Easy	Happy just about anywhere	Yes	Named after Achilles from Troy, used universally around the world as a styptic, analgesic, and antibiotic.
	<i>Arnica montana</i>	Arnica	Tricky to establish	Forest soil	Yes	Used in Europe to help reduce bruising. It is a cheery, yellow flower.
	<i>Prunus virginiana</i>	Chokecherry	Easy	Moist, rich soils	Yes	A shrub that will become a windbreak and provide food for wildlife. Traditionally used as a cough medicine.
	<i>Echinacea</i> spp.	Echinacea	Easy	Most any prairie soil	Yes	The flowers are lovely as cut flowers. Has been overharvested in the Midwest due to reportedly having immune boosting properties.
	<i>Mentha</i> spp.	Mint	Easy	Moist soil	Yes	Great tea but can become invasive.
	<i>Ligusticum porteri</i>	Osha	Very cranky	Forest soil and only about 7,000 ft.	Yes	A plant overharvested in its native state but lovely. I would grow this plant simply to help preserve it.
	<i>Trifolium pratense</i>	Red clover	Easy	Not fussy	Yes	This herb makes a wonderful, honey-like tea and helps build soil nitrogen levels. Pollinators love it. What's not to like?
	<i>Sambucus racecemos</i>	Elderberry	Easy	Rich soil	Yes	A pretty shrub. Currently a "hot" herb for purported immune boosting properties
	<i>Valerian</i>	Valerian	Easy from plant	Moist rich soil	Yes	Lovely flowers like Queen Anne's Lace. Tall. Used as a mild sedative by many cultures.

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