

ECHINACEA

PANACEA OF THE WESTERN PLAINS

Uses of the Purple Coneflower Among the Plains Indians

Elnora A. Old Coyote

The Western or Purple Coneflower, a.k.a. Black Sampson, (*Echinacea angustifolia*) grows in the grasslands and sidehills of the Great Plains, often on thinly developed soil in rocky areas, its elongated taproot enabling it to persist in drier sites. It makes most of its growth when the spring-summer season is warm.

Two other species of Purple Coneflowers are closely related and similar, with confusion reigning regarding identification and uses, which leads this author to the possibility that all species of Echinacea have similar characteristics and curative properties. The Prairie Coneflower (*Echinacea pallida*) grows further south, still on rocky, open sites. The ray flowers are still purple-pink, but the rays hang down. The Purple Coneflower (*Echinacea purpurea*) grows in open woods and fields more frequently than in the taller grass prairies, it has many purplish ray flowers.

All three are generally referred to as the Purple Coneflower. They are palatable and nutritious for livestock and native animals. Its growth indicates good range conditions, unless it has been overharvested by people. As with other sunflower-family

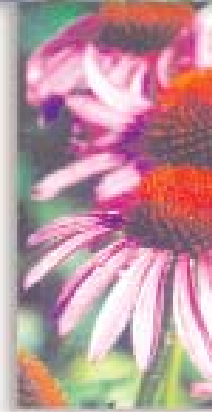
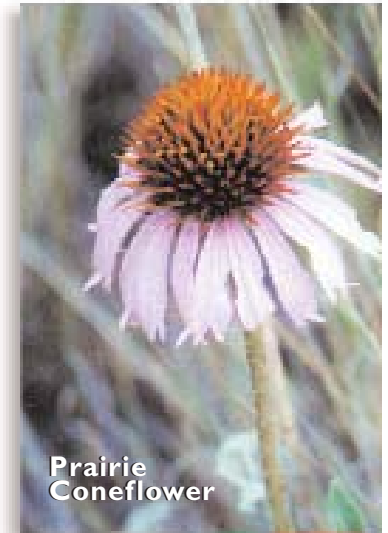
plants, purple cone flowers bloom in later summer to fall. Plant maturity for adequate root growth is 3 to 4 years. Harvesting time should be in the fall when the root is strongest in its content.

WESTERN CONEFLOWER

- *Echinacea angustifolia* (DC.)
Heller

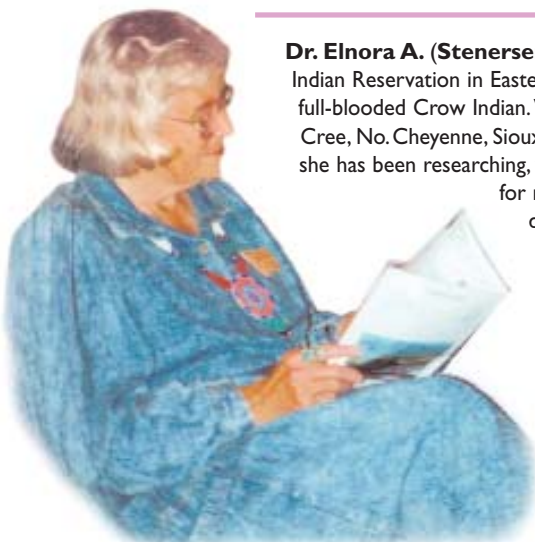
Purple-pink petaled sunflower rays stand out straight around a flatter cone-like head. Narrow, three-ribbed leaves have stiff hairs (awns) on blister-like bumps. The perennial root grows straight down in a long, narrow taproot. (See illustrations on page 30.)

The Western Coneflower has been used for relief for many ills. This plant grows in grasslands and along roadsides throughout the Great Plains. Its use comes and goes



in popularity, and it continues to be a plant of some mystery, even though chemical analysis and many trial uses have been made with it—especially the roots. Many of the Plains Indian people and early white settlers used the roots to offset disease, heal snake bites, and for general health. Constant users have much faith in the

Dr. Elnora A. (Stenersen) Old Coyote, age 85, grew up near a Crow Indian Reservation in Eastern Montana. She married John M. Old Coyote, a full-blooded Crow Indian. With the help of many Crow, Blackfeet, Chippewa-Cree, No. Cheyenne, Sioux, Shoshone-Arapaho, and Flathead tribal people, she has been researching, writing, and teaching about the use of native plants for many years. *Natural Life News* is honored to reproduce a condensation of her work in this and future issues. Included will be her texts on ecology and folklore and her original sketches and photos. Her body of work comprises the study of over 300 Montana plants. A Professor Emeritus at MSU Bozeman, Elnora is an accomplished writer, artist, teacher, and the author of many books, poems, and short stories. She is the recipient of many awards and honors. Currently living in Huntley, Montana, Elnora can be reached at (406) 348-2474. **NEXT UP**—Sagebrush.



Field of Echinacea along the road in foothills of Bull Mountains, southward off Hwy. 12 at Musselshell, Montana.



Purple Coneflower

*Panacea of the plant world—
remedy for all diseases,
for all evils,
for all difficulties.*

*One pale, purple sunflower
comes and goes
from our medicine chests.
Humble plant
or healing wonder?*

the powers
of this
purple
coneflower.

It is most thought useful to
boost the immune system to resist disease.

PRAIRIE CONEFLOWER

• *Echinacea pallida* (Nutt.) Britton

This paler, rose-pink petalled coneflower rises from a vertical, spindle-shaped root that is wider in the middle and shorter than *E. angustifolia*. The rays (ligules) are drooping, a characteristic identifying it from *E. angustifolia*. Its leaves are linear-shaped a few up the stem, all with softer hairs with no raised blisters. The flower heads are two-cleft (double-pointed petals).

This coneflower grows on open dry plains, it probably is the one used by the Cheyenne people

as tea, made of powdered roots and leaves, to drink for sore mouth, gums and throat, or just a piece of root to hold in the mouth to chew to ease pain from an aching, decayed tooth. Chewed cool, the root numbed mouth and throat. A solution from roots and leaves relieved neck pains. Cheyennes mixed roots with spores of puffballs (mushrooms) and skunk oil to apply to boils after the medicine person had lanced and sucked out the inflammation.

Sioux people used the plant to produce smoke to treat headaches in people and distemper in horses. Some tribes used it mixed with roots of wild ginger for stomach cramps. Mixed with roots of flowering spurge (*Euphorbia corollata* L.) as tea, it was used as a laxative. Mixed with western snowberry (*Symphoricarpos occidentalis*), it was used in solution as a wash for inflamed eyes.

PURPLE CONEFLOWER

• *Echinacea purpurea* (L.) Moench

This purple coneflower may be distinguished from other Echinacea flowers by its ovate (heart-shaped) lower leaves (not linear), clearly five-ribbed. Its mostly toothed, outwardly projecting, pappus scales have awns as long as the scale itself (long hairs). Another distinguishing characteristic of *E. purpurea* is the horizontal or inclined growing perennial root.

This plant has highly active polysaccharide molecules, which stimulate the immune system. Hence, the properties of the various Echinacea plants are very similar.

FOLKLORE & USAGE

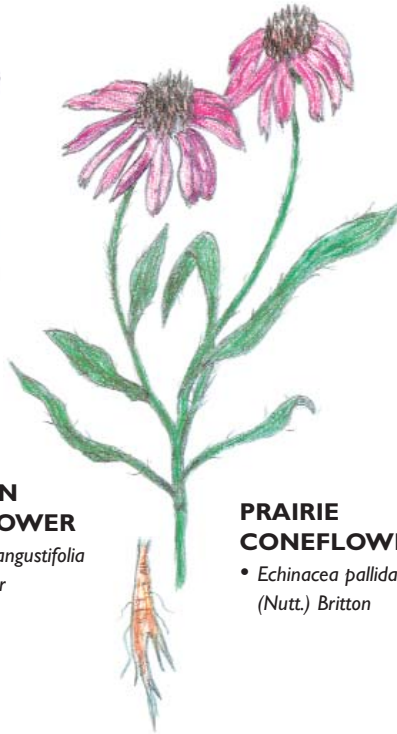
FOOD: Animals readily graze on coneflowers. They are nutritious and very palatable.

MEDICINAL USES: Untangling the confusion regarding the properties and uses of Echinacea has not been conclusively done as yet. Purple coneflower has had a multitude of uses as a medicinal herb. It is reported that the roots are used most frequently, but usage is not limited to the roots. Often the plant is wholly crushed or boiled into a tea. Indian tribes, including the Dakota, Omaha, Kiowa, Winnebago, Cheyenne, Assiniboine, Crow,



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CONEFLOWER**

• *Echinacea angustifolia*
(DC.) Heller



**PRAIRIE
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• *Echinacea pallida*
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**PURPLE
CONEFLOWER**

• *Echinacea purpurea*
(L.) Moench

ECHINACEA comes from the Greek *echinos* meaning “hedgehog” for the spiny, rounded seed head. *angustifolia* means narrow leaves; *pallida* means pale; *purpurea* means purple.

INDIAN NAMES: Northern Cheyenne: MOHK TA’ WI SE’ EYO. Lakota: ICA’HPE HU, “used to knock something down,” and ON ‘GLAKCAPI, “to comb hair with.”

Comanche, Pawnee, Blackfeet and Flathead, also white settlers in America, people in Mexico and Canada and all around the world, from early times to the present, have all been excited about Echinacea. At times the plant was a miracle cure for all things—a panacea. At other times, the use and lure of Echinacea have waned, each time to revive, until now there may not be enough plants to satisfy people’s needs, desires, demands and hopes.

A caution regarding echinacea treatments: The different native peoples I have consulted have expressed their varying folkways and beliefs about medicine and religion, which leaves unanswered questions about treatments with this herb. Modern medicines are often extractions or concoctions. I have a bottle of Echinacea capsules at home, which may contain the total plant or perhaps parts. The Indian people usually did not extract parts, but used the whole plant. Possibly the substances were more effective as a whole with the entire plant, instead of parts taken out as many present-day med-

icines are. Also the medicine man stayed with the patient to observe, within a comforting climate of prayers, touches, and songs. Historical folklore has reported the uses of Echinacea as follows:

ANAESTHETIC: Most Indian people, and early trappers and settlers, knew the pain-killing capacity of Echinacea. A piece of root was chewed for toothaches, a concoction of leaves and roots was rubbed on

sore muscles. The medicine men of some tribes rubbed the crushed root on their hands as a local anaesthetic so they could remove pieces of meat from a boiling pot to be used ceremonially. The crushed root was placed in the mouth so the medicine man could put a live coal in his mouth to awe his audience with his power, thus creating confidence among his people of his abilities to heal.

REMEDY: Indian people and early settlers found the Purple Coneflower useful as a remedy for sore throats, colds, influenza, colic, stomach ache, and bowel distresses. Taken internally, often as a tea, or used in salves, tinctures, and in concoctions applied externally for gunshot wounds, cuts, bruises, toothaches, sore eyes, sore mouth and gums, and for sore muscles and joints, boils, and to reduce inflammation from frostbite, etc.

THIRST: The root was chewed to stimulate salivation, thus to prevent or relieve thirst. This was useful during Sun Dance ceremonies to relieve the thirst of the participants. The pungent taste of the chewed root was said to be similar to black pepper and produced much saliva.

COSMETIC APPEARANCE: The stiff, dried seed-head was used as a comb or brush for the hair.

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ANTIBIOTIC & ANTIDOTE: Experimental studies have shown that the roots of Echinacea have antiseptic and antibiotic qualities and anti-inflammatory effects, hence are good for healing wounds. Also, a freshly scraped root was used as an antidote for snake bites, dog bites, and rabies infection, and for healing wounds that become gangrenous or otherwise infected.

IMMUNE STIMULANT: Perhaps the most important benefit of Echinacea has been its stimulating effect on the immune system to fight against internal ailments, such as influenza, colds, and communicable diseases. In summary, Echinacea has been harvested (leaves, stem, root and flowers) and made into teas, concoctions, tinctures, salves, or just ground and used fresh or dried, by people all over the world. Probably the most intensive research has been done in Germany, resulting in an understanding of the chemical content of Echinacea. The most important finding is that both *E. angustifolia* and *E. purpurea* have highly active polysaccharide molecules. *Echinacin B* is one of these that has been shown to indeed stimulate the immune system (in humans, as well as horses, cows, and mice) to resist bacterial, viral, and fungal attacks, from herpes, influenza, colds, colic, and communicable diseases, such as measles and smallpox, and perhaps even useful in the treatment for cancer. Other antiviral components include *caffeic* and *chicotic acids*.

INSECTICIDE: Purple Coneflower contains insect-killing chemicals toxic to mosquitoes and flies. The plant contains *echinolone*, which stops the development of insects at various growth stages.

Flower Power

*Does purple coneflower
lose its healing power
in an artist's portrayal?
Or is it there still—
some essence
in its pictured presence
that we do not know about?*

*Echinacea—stemmed
and rooted petalled beauty—
Must it lose its vibrantness
crushed, chewed, swallowed?
Or simply plucked and painted
in artistic semblance?*

*Is its magic healing still alive,
although in spirit form,
and undiscerned
by the human eye?*



PREPARING ECHINACEA TEA: Put a teaspoon of the crushed plant (root, leaves, stem and flowers) in a cup of boiling water and boil for 1/2 hour. The dosage recommended is 1 tablespoon of the tincture, 3–6 times a day, for internal use. For external use, steep as above and apply or bathe the parts concerned.

GROWING ECHINACEA: Echinacea (especially *Echinacea purpurea* but other species as well) can and has been cultivated and grown from seed. It has been found that seeds should be stratified for 2–4 months to increase both the speed and frequency of germination. Seeds may

be stratified by wrapping them in peat moss and storing them in a plastic bag in the refrigerator (much as gladiola growers store their bulbs in a paper bag in the vegetable tray over winter). In spring, when the seeds are planted, they should be covered with a thin layer of soil. Seedlings must be carefully watered and weeded. In autumn, cover the seedlings with a layer of leaves to protect them through the snow and cold until spring, when the plants are uncovered carefully and new growth occurs. This process takes 3–4 years for roots to attain a harvestable size.

Echinacea can also be propagated by dividing the crowns into plantlets. Once roots are big enough to harvest, crowns can be divided and grown in greenhouses over the Winter, until they reestablish their root systems. In spring, the new plants can be planted in a field or garden. This is a faster way to produce Purple Coneflowers than continuing to grow them from seed only. ■