

PRAIRIE PLANT USES

1. Not only did prairie Indians find uses for the animals on the prairie, the grasses and other plants that reveal a prairie's beauty also provided innumerable resources. Many of these plants are still used today for their healing or nutritious properties first discovered by American Indians. The following activity is designed to be set up as four rotating stations. Allow approximately 15-20 minutes for students to visit each station. Each station will require adult supervision. Read through the student worksheets for each station prior to the start of the activity. **NOTE:** Dandelions were chosen for the Plants as Food activity solely because they are readily available in virtually every part of the country. If a native prairie plant had been chosen, many Bell LIVE! 99 participants would have been excluded because of inaccessibility. The dandelion is an introduced species from Europe and was not used originally by prairie Indians.

Station 1 Setup: Plants as Food

"Plants As Food" student worksheet

"Dandelion Salad" recipe

approx. 1 pound of fresh, thoroughly washed dandelion leaves

1 clove of fresh ground garlic

vegetable oil

salt and pepper

hot plate/portable burner

large saucepan

wooden spoon

paper plates/bowls

cutting board and knife (or cut leaves prior to activity)

Station 2 Setup: Plants as Medicine

"Plants as Medicine" student worksheet

"Insect Bite Poultice" recipe

hot water (not boiling or scalding)

dried chamomile flowers (available from herbal shops)

small onions

small mixing bowls

flour

plastic zipper bags

large (palm-sized) rocks

Plants As Food

When is the last time you ate a plant? You may not have realized it, but you eat plants all the time. Bread is made from flour, which comes from wheat (a grass), fruits and vegetables all come from plants, and the lettuce in your salad are the leaves of the lettuce plant.

American Indians collected hundreds of prairie plants for food and nutrition. A few common prairie food plants include Solomon's seal, whose thick roots were used to make bread, False Solomon's seal, whose delicious pale red berries contained high amounts of Vitamin C, Milk Vetch, or Ground Plum, whose pod-like fruits were boiled and salted for a tasty treat, or whose roots were eaten raw after a rain, and the Groundnut, or Indian Potato, whose small tubers were eaten raw or boiled.

Indians cooked roots and greens and other foods in a steaming pit. They dug a pit in the ground, lined it with stones, and then built a fire in it. After an hour, the coals were scraped out and a layer of wet grass was placed over the stones. The food was set on the grass and covered with more wet grass. Water was poured on the food. When the water reached the hot stones, steam formed. Then the pit was quickly covered with flat rocks or a piece of hide. Finally, dirt was heaped over the entire pit to seal in the steam. The food cooked in such a pit for several hours.

Another widespread heating technique also relied upon the use of hot stones. First, a pit was dug and lined with leaves. Nearby, a pile of stones was heated. Then the stones were lifted up with two forked sticks and dropped into the pit. Over these hot stones you could roast small animals or plants. If you lined the pit with animal hide or stones and filled it with water, you could boil your supper instead.

Dried seeds, roots, and berries were stored in pits at the backs of rock shelters. Such pits kept the food dry and helped Indians survive during lean seasons.

Dandelion Salad recipe

When gathering dandelion leaves for salad, be sure to pick the smallest, youngest leaves, as they are the most tender. Also, only pick leaves off of plants whose yellow flowers have not yet developed. The leaves turn bitter after the plant flowers.

Ingredients:

dandelion leaves
1 clove of garlic
1 Tablespoon of oil
salt and pepper to taste

1. Wash all dandelion leaves thoroughly.
2. Cut the leaves in half.
3. Crush the garlic using a garlic press.
4. Heat the oil and garlic in a saucepan to simmer.
5. Add the leaves, salt, and pepper.
6. Cook about 12 minutes or until tender. Add water if it gets too dry.
7. Cool slightly and serve.

Plants as Medicine

The average American Indian of the prairie knew a great deal about natural cures. Read the following descriptions of how Indians used certain prairie plants to heal their sicknesses.

A smudge made of **Aster** blossoms and rubbed on the head was said to cure insanity.

Members of the Ponca tribe chewed the underground corm (a type of bulb, or round, root-like structure) of the **Blazing Star** and then blew the resulting paste into their horses' nostrils to increase the horses' endurance.

The **Lespedeza, or Bush Clover**, was used as a rheumatism treatment. The Dakota and Omaha moistened the small stems with their mouths and stuck them to the skin. The other end was then set afire and allowed to burn down to the skin.

One who had broken a rule or touched a forbidden object could be restored to good standing in some tribes by bathing in water with **Prairie Sage** in it. Burning sage was also used to drive bad spirits from a home.

Big Bluestem was used to cure a fever – a cut was made in the forehead of the affected person and a decoction made from the leaves was poured over it.

Purple Coneflower was found to be a burn preventative and enabled one to endure great heat. After bathing hand in the juice of the plant, meat could be picked out of a boiling pot. Sometimes, it was used before rituals that required one to hold live coals in the mouth. The Indians of the western plains use the purple coneflower as a universal application for the bites and stings of many insects.

The Flambeau Ojibwa tribe boiled the dried **Wild Bergamot, or Bee Balm**, and extracted bergamot oil which was inhaled to relieve bronchial complaints.

The Winnebagos steeped **Yarrow** plants and poured the resulting liquid into the ear to relieve earaches. The Ute tribe pulverized the whole plant, and applied it to cuts, bruises, and other minor injuries

The roots of the wild **Indian Turnip, or small Jack-in-the-pulpit**, was used as food by several tribes, but only the Pawnee powdered the root and applied it to the head and temples to cure a headache.

American Indians fermented dried **Gentian** roots into a bitter-tasting tea that relieved indigestion and stimulated the appetite. The Catawba tribe of the southeastern United States soaked the roots in hot water and applied the resulting brew to aching backs. (Gentian grows in many habitats — not just the prairie.)

Plants as Medicine (continued)

Omaha Indians chewed **Milkweed** roots before applying them as a salve on sores and wounds.

Burning **Fleabane** produced an oily smoke that drove away flies and gnats.

Indians believed that **Blue Cohosh** helped during childbirth. For two weeks before delivery, pregnant women drank a tea made from its roots.

Insect Bite Poultice recipe

To relieve the pain of insect stings, that Dakotas and Winnebagos applied a **poultice** of wild onions and garlic to the skin.

A poultice is a hot, soft, moist paste or mass of mashed herbs, applied to the body for healing purposes.

Try your hand at creating a poultice for insect stings.

1. Place several small onions into a plastic zipper bag. Seal the bag.
2. Use the rocks to crush the onions firmly.
3. Add some flour to the bag, and mix the contents by squeezing the outside of the bag until you have a paste inside. Add more flour if the mixture is too thin.
4. Seal the bag. The next time you get an insect sting, remove some of the mixture, heat it in the microwave (not too long! you don't want it to burn!) and press it against your skin over the bite.

Here's another recipe:

1. Place a handful of dried chamomile flowers into a plastic bag. Seal the bag.
2. Use rocks to crush the flowers into smaller pieces.
3. Add a small amount of hot water and mix the contents by squeezing the outside of the bag until you have a paste inside. Add some flour if the mixture is too thin.
4. Seal the bag. The next time you get an insect sting, remove some of the mixture, heat it in the microwave (not too long! you don't want to get burned!) and press it against your skin over the bite.

Design an experiment to see which poultice would work better. Present your design to your teacher.