ABSAROG-ISSAWUA
(from the Land of the Crow Indians)

by

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This is an original piece of research into the Crow Indian uses of native plants and animals for food and medicinal, as well as other purposes. Incorporated into the manuscript are introductory legends or incidents surrounding or accompanying the recipes.
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Finally the author wishes to express her love for her husband Edwin Toineeta, children and grandchildren, who not only helped with the original manuscript and were patient with her as she struggled, but also for their fearless testings of those things recorded here.
BREADS
Flour is a new food to the Crow Indians. The introduction of this important product to the diet of the Crow people dates back only to the treaty with the U. S. Government at Fort Laramie in 1851. This treaty established the original Crow Reservation boundaries and agreements for the United States "to expend monies in provisions, merchandise, domestic animals, farm implements, etc." for the use of the Crow Indians.

In making selections of territories for reservations, the tribes did not surrender their privilege of hunting, fishing or passing over any of the tracts of country described. So, for awhile the Crow Tribe was free to continue a nomadic way of life. Their food was supplemented by the provisions that the federal government agreed to supply. Each head of a family was issued a ration card stating the number of people in his family. Once a month the tribe appeared at the Agency to receive rations of flour, rice, brown sugar, salt pork, salt, coffee, soap, meat and tobacco.

My grandmother told a number of amusing incidents in the use of these products because no one gave any instructions. For instance, no one knew what to do with the white powdery stuff that came in sacks upon sacks. Because it resembled the white clay the women used in cleaning buckskin, they were delighted to experiment in using it for their "dry cleaning." They mixed a little water with the flour to make a paste as they did with the white clay. But this became sticky and gummy! When applied to the buckskin, it dried into
brittle flakes. It was tasteless and the white powdery stuff did not adhere to any surface. No one found any immediate use for it; so when the camp moved, flour and the salt pork that no one could eat, soap and rice were left behind. Sugar, tobacco and the articles of clothing and blankets were accepted.

Crow Indian women were noted for their fine tanning. Some of the best tanners decided to experiment in using the flour to improve their white buckskin. They used it in the tanning process and found it to be an excellent ingredient to whiten the buckskin. At last, some use was discovered and every woman who took pride in her tanning found a place on one of her pack horses to take her ration of flour along.

In time, some home maker learned to make bread. Probably she learned from a trapper or a fur trader who came to live with the Crow Indians, so another use was discovered. Today we have members of the tribe who excel in the art of bread making to suit our taste and needs, such as the Indian fried bread. In the old nomadic days when household equipment and cooking utensils were few and of the barest necessity, only an iron skillet or kettle was needed to prepare this tasty and delicious bread.
INDIAN FRIED BREAD

2 cups of sifted flour
4 tsp. baking powder
2 tbsp. sugar
2 tsp. salt
3/4 cup or more warm water
to make soft dough

Sift all dry ingredients into a mixing bowl, add all of the water and mix only until a soft dough forms. Turn out onto a floured board or table and pat into a ball, break off a piece of it and roll out to 1/2 inch thickness, the size of a saucer or roll out all of the dough and cut into squares to fry in deep fat like doughnuts. Fry until golden brown on one side then turn and brown the top side. Keep covered in pan or plate and serve warm with syrup or honey. This is especially delicious with stew or chili on a chilly winter day. Another way to serve is to split the golden brown square and fill it with spoonburgers or broiled steaks and steaming hot coffee.

CAMPFIRE BREAD

2 cups flour
4 tsp. baking powder
1 tablespoon salt
2 tbsp. sugar
1/4 cup shortening
3/4 cup milk or water

Sift the dry ingredients into a mixing bowl. Cut in shortening. Add the liquid and mix quickly, the less handled, the better. Turn the dough onto a floured board, knead it lightly and divide the dough into 2 or 3 balls to fit a heavy iron skillet that has been heated over a bed of coals. Roll out one ball of dough and put into the skillet that has been greased generously. Set the skillet back on the coals. Carefully move the dough around often to prevent burning or scorching on the bottom. When it is golden brown on the bottom,
lift the skillet by the handle to prop the bread to the fire with a stick and brown topside. Move the bread around often to brown evenly. This is a delicious bread with any entree. Serve hot with butter and choke cherry jelly or jam.

HOME MADE YEAST BREAD

My parents are of the first generation to be born on the newly created Crow Reservation. A federal boarding school was established at Crow Agency for the children. This school offered only the first six grades so that when the more aggressive pupils finished the sixth grade before they reached their eighteenth birthday they were sent off to other boarding schools of higher education. To recruit children for our agency boarding school, tribal policemen literally tore the children away from their mothers' arms and in many cases kidnapped them from their parents. My parents were enrolled at the tender age of four years by tribal policemen. Older boys and girls took care of these mere babies until they were old enough to take care of themselves and to learn to speak English. Then, their formal education began. By the time they were ten to twelve years of age they finished the sixth grade and were ready to go on to another institution of higher education. My father chose to go to Sherman Institute, Riverside, California, and my mother chose Carlyle Indian Training School, Carlyle, Pennsylvania.

From the white man, each learned many new skills that contributed to a happy home for their children. My mother made the best yeast bread in our whole valley. She made her own yeast and we
children gathered hops (Humulus lupulus L.) for her in the summer
time to dry and store for the year's supply. To make the yeast she
would boil some potatoes, 2 or 3 medium size ones with about a
cupful of the hops tied in a piece of white cloth. When the potatoes
were done she drained off the water, mashed the potatoes and set
them aside, then added some flour to the liquid and heated to make a thin
cooked paste. The mashed potatoes were then added to the paste
and about 1/2 to 3/4 cups sugar and a little salt were added to this.
It was covered and allowed to stand in a warm place to rise until bubbly.

TO MAKE BREAD

Add 1/2 cups of this sponge to 4 cups of liquid. Add 3/4
cups of sugar and 3 tablespoons salt, then add enough flour to make
a thin batter. Let this rise to double in bulk. In the old days
this was overnight; then in the morning add 1/2 cup of melted fat
and enough flour to make a satiny dough that will not stick to the
hands. Grease a pan and the top side of the dough, cover and let
stand in a warm place until double in bulk. Knead and form dough
into loaves and rolls. Individual loaves will bake at 400° F.
in 35-40 minutes. A pan of rolls will bake in 40-45 minutes.

SPECIALTIES FROM OTHER TRIBES

These are not Crow recipes but have a place in this section for
added interest in Indian cookery. My children are half Cherokee and
some of these recipes are of Cherokee origin supplied by their
relatives so that we might continue to enjoy them in our home.
CHEROKEE BEAN BREAD

Corn meal that has been ground at the grist mill is the best for this bread, but a good substitute is Quaker's Masa Harina for making corn tortillas, tamales, etc. Pinto beans cooked without bacon or ham are best. Measure 3 cups corn meal into a mixing bowl, add 2 cups cooked beans, well drained. Mix well to coat each bean with corn meal. Do not add any salt; it crumbles the bread. Add enough boiling water to the corn meal and beans to form a stiff dough. Make patties the size of your palm and about 2 inches thick or smaller. Drop these into a pot of boiling water, cover tightly and let simmer 45 minutes. Serve these dumplings with butter or drippings from roast beef or wild game.

SWEET POTATOE BREAD (CHEROKEE)

Prepare as for bean bread, using sweet potatoes instead of beans. Peel and chop 4 or 5 cooked large sweet potatoes, add to corn meal. Add boiling water to form dough into cakes and drop them into boiling water until done or bake in greased pans in oven.

GRIT BREAD (CHEROKEE)

Take 10 or 12 large green ears of Indian corn past the roasting stage. Cut corn off cobs then grate or scrape the rest of the corn off the cobs. Add 2 eggs, 1/2 cup of sugar, 2 tablespoons salt and 2 teaspoons of soda, add 1/4 cup of melted fat to corn, mix well and bake in moderately hot oven, 425° F. until brown. This is a chewy bread that has a wonderful flavor.
SOUR CORN BREAD

1 pkg. yeast
2 cups flour
3 cups corn meal

Dissolve yeast in warm water, add flour and corn meal and enough water to make a smooth batter. Cover tightly and set in a warm place over night. Next day: Add 1 cup corn meal, 1 cup cooked rice, 1 tablespoon salt, 3 tablespoons sugar, 2 teaspoons baking powder. Mix quickly and pour into a greased, hot, heavy skillet (3/4 full). Let simmer on top of stove until bubbly, then bake at 450° F. or until baked nice and brown.

PUMPKIN, CORN DUMPLINGS (WICHITA)

Take a gallon of water and 1/2 gallon of wood ashes from Hickory or Blackjack and bring to a boil. Add 1 gallon of Indian corn and boil for 20 minutes. Pour corn into a colander and wash thoroughly in several gallons of water or under a faucet. Let drain, then grind with food chopper. Take 2 qts. of dried pumpkin, cover with water and cook until done. Add 2 cups sugar and 1/2 cup chopped nut meats and thicken with the prepared corn meal. Mix enough to make a stiff dough to roll into an oblong ball. Drop these balls into 2 qts. boiling water, one at a time. Keep moving and turning the pot to prevent scorching. Stir with wooden spoon. Cook until juice is thick. Add another 1/2 cup chopped nut meats. Serve hot or cold, with or without cream.
DRIED CORN, PUMPKIN STEW (OSAGE)

2 cups dried squaw corn
1 lb. fresh pork shank

Cook together until done, then add 2 handfuls of dried pumpkin and continue to let stew simmer until pumpkin is tender.

INDIAN VILLAGE DISH (WICHITA)

Prepare squaw corn hominy and cook slowly. While the corn is cooking, prepare a meal of parched corn and parched whole pumpkin seeds. 1 cup of each is sufficient. Grind the parched seed and corn in food chopper, sift and use only fine meal. Mix with water as for gravy and add to the cooked corn to thicken. Salt to taste and serve.

FRIED DRIED PUMPKIN

Soak the dried strips of pumpkin in warm water until plump and double in size. Drain off water and remove the peeling. Fry the slices in a skillet as you would potatoes, using shortening or lard. Before the pumpkin is done, add sugar to taste, serve hot.

PARCH GREEN CORN

Husk roasting ears. Clean off silk. Have a bed of live coals ready and place the ears of corn on the coals. Turn the ears constantly until evenly browned. Serve with butter.
HICKORY NUT SOUP

GA-NU-GE OR CONUTCHEE

Pulverize whole hickory nuts until they can be pressed together by hand to form a ball. To make the soup, cook some hominy grits in a heavy kettle until done. Then take one or two of the hickory balls and cover with boiling water in another kettle. Stir constantly. When the nuts disintegrate in the hot water, some of the hulls will float to the top. Sieve this gruel to remove the hulls. Then add the strained hickory gruel to the hominy.

If this makes into a thick soup, it may be served with bread or dumplings. If it is made into a thin soup, it may be used as a drink. As the thin soup is poured off, more water can be added. The last of this mixture is not edible as there may be bits of hull.

CORN AND BEANS

Cook an equal amount of dried corn or hominy and beans separately until done. Mix the cooked vegetables together in a larger kettle to continue cooking. Add some dried pumpkin and cook until pumpkin is done. Then add to this mixture, cornmeal, beaten walnuts, hickory nut meats, and molasses to taste. Cook until meal is cooked. Serve at once, or it may be kept until it begins to sour. It does not keep well after it begins to sour.

Serve with sugar or salt.
VEGETABLES
All of the vegetables that the Crow Indians used were gathered early in the spring, prepared and dried in the sun to preserve for winter.

The wild turnip which the Crow Indians called "Ee-hay" and the botanist named *Psoralea argophylla* Pursh. is a root vegetable that grows best in sandy soil on hillsides. The size of the root varies from slender pencil size to the proportion of a large cultivated Oxheart carrot. The skin is smooth when quite small but becomes tough and woody when it reaches maturity. The root is dug early in June after the spring rains when the plant is in bloom; this is when the root reaches its peak in flavor. It is firm and peels easily. It is sweet to the taste and retains its natural flavors. The name "wild turnip" is misleading because it does not resemble the turnip in texture, flavor, or in any other way.

To use the root, the skin is peeled off and the white firm, starchy root is sliced off to the core. The slices are then dried in this form or pounded and mashed to a coarse meal, then spread out in the sun to dry. A stone mallet and a rawhide vessel, shaped like a large dish pan, served as a good chopper in the old days. Today the slices are put through the food chopper and the course meal is then sacked in cellophane freezer bags and stored in the deep freeze, or sun dried and stored in air tight containers.

The wild turnip can be eaten fresh. It is quite dry and starchy, but filling.
To prepare any of the vegetables it is more nutritious as well as flavorsome to cook them in a stock prepared from cracked marrow bones. Nothing was wasted from any game that the hunter brought home in the old days.

The homemaker saved the bones from which she removed the meat to make jerky. While the sliced meat was drying in the sun, she cracked the marrow bones, boiled them, and removed the fat to use later in pemmican or to add to her vegetables as a cook adds butter to her carefully steamed vegetables today.

The stock is the liquid in which the vegetables are cooked until done. This is thickened with the white shavings from the second layer of skin that the tanner saved from dressing a hide. This cooks into a gelatinous substance. The modern day cook uses flour or cornstarch for thickening.

Not many modern Crow Indian cooks crack marrow bones for the stock to cook native root vegetables and fruit. Water from the tap or well is used instead. Soaking the dried vegetables enhances the flavor and shortens the cooking time.

TO PREPARE WILD TURNIP

Soak two cups of ground meal in 2 cups or 3 cups of warm water until the particles are soft and swollen. Let simmer over medium heat until the vegetable is tender, about one hour. Mix 1/4 cup of flour with enough water to make a smooth paste. Add this to the cooked turnip, stir vigorously to prevent lumping, cover and let boil 5 minutes. Add 2 tablespoonsful of marrow fat or shortening and remove from fire. This is best sweetened with a little sugar. Serve warm.
WILD PARSLEY (BLACK ROOT)

"Marshaspita" is the Crow name, or "That Which Has Black Root."
(Botanical name- Musineon divaricatum (Pursh)Raf.)

This plant has a fleshy root. It is dug when it is in bloom. It grows in open meadows, where grass grows. It is starchy and has a pleasant and sweet flavor eaten fresh.

This plant can be cooked like the other roots. The almost black cuticle or skin peels off easily, but it can be eaten too. The roots are washed clean and boiled, and mashed when cooked. Then thicken a little and add a small amount of marrow or shortening.

WILD ONIONS

The wild onion (Allium textile Nels. & Macbr.) did not appeal to the Crow Indians as a food. It is used as a fertilizer in the tobacco planting ceremony. Some may have used it for medicinal purposes, but its general use was very limited.

The southern Indian tribes ate the wild onion in the spring with scrambled eggs. The outer skin is removed and the onion is chopped, sautéed in fat or butter until tender. Stir often to prevent browning. Mix eggs with a little cream, salt and pepper, and pour over the onions and stir. Let cook until done.

ROSE HIPS

"Mitch-gub-ay" is the Crow name. The literal translation might have been "Dog's Nose," but due to changes in language over the years the true meaning has been lost. Rosa nutkana Presl. is the botanical name.
The fruit is gathered and utilized by Crows for food after the first frost. The hips are stewed in stock or water, mashed when cooked with a potato masher and thickened with a flour paste; a tablespoonful of fat is added and sweetened to taste.

Another use is a concentrate which is served as a snack and roasted like marshmallows. This could be the Crow Indian "Marshmallow." The rosehip is a very rich source of Vitamin C.

**ROSE-HIPS CONCENTRATE**

Four cups of berries are mashed between two thicknesses of clean canvas about one-half yard square. Use a hammer or hatchet to mash the berries. Wash the hammer or hatchet. A food chopper may be used. Add to the mashed berries 2 cups of kidney fat that has been broken up in small pieces. Mash the two together until mixed well, then add 2 cups of sugar and mix well with hands. The sugar will make the mixture sticky. More sugar may be added to suit the taste. The concentrate is now ready to form into oblong balls. Put them in a pan and store in the refrigerator until "set" and until the balls do not stick to the hands.

To eat these balls use a clean stick about two feet long or a long picnic fork. Spear the balls lengthwise and roast closely over the open fire or over a bed of hot coals until the surface is brown and bubbly. It will be very hot so let it cool until it is comfortable to lick, spit out the seeds and continue to roast the rosehip ball. Lick and toast until you are through. This has the
combined flavors of delicious apples and strawberries.

The modern food chopper will do a good job of grinding and mashing the berries and suet together.

**ROSE-HIP JAMS**

Because rose hips are a valuable source of vitamin C, these berries are used in different ways, since the coming of the white man and the introduction of his jams, jellies, and preserves.

To make the jam, wash and remove the blossom ends of the berries. Cook in 4 cups of boiling water until soft. Mash with a potato masher, then rub through a fine sieve or food mill.

Measure 3 cups fruit pulp into a large 6 or 8 quart kettle. If there is not sufficient fruit pulp, fill the last cup with water. Add 1 package of M. C. P. pectin, stir well. Place over hottest fire available and bring to a boil, stirring constantly. Add 4 1/2 cups sugar and mix well. Continue stirring and bring to a full rolling boil; then boil exactly 4 minutes. A rolling boil is one you cannot stir down. Remove from fire and let boil subside and skim by turns for 5 minutes, cool slightly. Pour into glasses that have been washed in hot soapy water, scalded and drained. Use new parafin to seal the glasses. Do not fill glasses to top, allow space for melted parafin. Cover with parafin at once.

**ROSE-HIP JELLY**

Wash and remove blossom ends of rose hips. Chop coarsely 4 cups of rose-hips, put in kettle and add 2 cups of water and let boil for 5 minutes. Strain over night in a jelly bag. Boil
the juice with 3 cups of apple juice if you have it, or 3 cups of
juice to one package of M. C. P. pectin and 4 cups sugar.
Measure the sugar into a dry dish to be added later. Measure
fruit juice into large heavy kettle. Add M. C. P. pectin, stir well.
Place over hottest fire available and bring to a boil stirring
constantly. Now add the measured sugar all at once. Mix well,
continue stirring and bring to full rolling boil that you cannot
stir down. Remove from fire. Let boil subside. Skim carefully
and pour into glasses, leaving $\frac{1}{2}$ inch space at top for melted parafin.
Pour melted parafin at once.

**DRIED PUMPKIN AND CORN**

For this dish either hubbard squash or regular pie pumpkin may
be used. Pick the vegetables off the vine before the skin is tough.
Wash the young pumpkins, and slice them into strips or circles as
you would slice tomatoes. It is not necessary to remove the seeds
because they are not fully developed and are yet tender. Spread
the strips or circles on a clean tarp or muslin on a table or drying
rack to dry in the sun. Turn the strips over and stir them around
often to dry quickly. This may take several days. In the evening
gather the strips, or cover the drying rack with a piece of plastic
sheet to protect from moisture. Continue the drying process the
next day. When the pumpkin strips are quite dry, put them in a
flour sack and hang in a well-ventilated place to continue to dry
thoroughly before storing in an air-tight container.
TO FREEZE PUMPKIN

The dried pumpkin retains a better flavor than the frozen strips or slices, but drying takes time. Instead of spreading the thin slices in the sun to dry, put them in a kettle with a little water to prevent scorching and cover the kettle to steam through about 10 minutes. Let cool and sack the pumpkin strips in freezer bags and freeze.

TO DRY CORN

Pick the corn when it is ready for the table. Sweet corn is best. Prepare the corn as for canning or freezing. Shuck and boil the ears of corn for 3-5 minutes to set the milk, then remove the ears from the kettle and cut the kernels off the cob. Dry the corn in the sun or freeze like the pumpkin.

TO COOK DRIED CORN AND PUMPKIN

Soak equal amounts of each vegetable, if they are dried, until swollen. Then cook until they are tender. If the vegetables are frozen the cooking time depends on how well done they were when they were frozen.

Mix some flour and water to make a smooth paste, and add to the cooked vegetables, stirring constantly to prevent lumping. Add 1 tablespoonful of marrow fat or butter, and sugar to taste. The thickening should be medium.
SEGO LILY

This plant is also called Mariposa Lily. The botanist calls it *Calochortus nuttallii* (Torr. & Gray); the Crow name is "Burned On Top Of Head."

The bulbs of this plant are dug when the flower is in full bloom. The bulbs are sweet and have a very pleasant creamy taste and flavor. The outer covering or skin is removed when they are to be eaten. The bulbs can be boiled in stock or plain water and thickened as the other mentioned plants, or they may be eaten fresh.

WILD POTATO

The native Crow name for this vegetable is "Mealy Root."
The botanist calls it *Claytonia lanceolata* Pursh. This is an early spring vegetable ready for use when the white or pink blossoms are in bloom. Mealy root grows where it is moist under brush and along creeks. In the mountains these plants grow in a thick carpet in the clearing where the snow has just melted. The root or bulb grows to the size of a small walnut, dark skin and creamy white mealy meat. The roots are dug, cleaned and cooked in boiling water, mashed and thickened with flour and sweetened to taste.

WILD CARROTS

We call this vegetable "Forked Grass." The common name is Squaw Root. The botanical name is *Perideridia gairdneri* (H. & A.) Mathias, wild carrot or yampa.

This plant grows anywhere there is grass, in open fields, near water or on top of the highest hill. The roots grow either in
clusters or form a large single root, the size of a young carrot. The skin is rather thick and dark, the meat is cream color, and crunchy to eat like celery and sweet when fresh. The root is ready when the plant is in bloom. A shovel is the instrument used to dig the roots after a rain, as the ground is soft and yields easily. After washing the roots to remove the sand and dirt, the carrots are boiled until tender. Like the turnip these are mashed by hand, but the food chopper is the quickest way to grind or mash carrots. They may be frozen or dried.

To prepare soak the amount desired in warm water, cover the dried vegetable and let it stand until soft. More water may be added to replace the amount the vegetable soaked up. This vegetable needs to be boiled only a short time because it is already cooked. Mix some flour and water to make a paste and add to the carrots to make a medium thick mixture. Add a tablespoonful of marrow shortening, or butter and sweeten to taste.

WILD CARROT PATTIES

Wash and cover the carrots with water. Boil until tender, then drain the water and let vegetable cool. Remove the skin and mash the carrots like potatoes, sweeten just enough to taste and make patties. Fry in butter to brown on both sides.

Serve warm. This vegetable tastes more like parsnips than carrots when prepared this way. It can also be baked like mashed sweet potato with marshmallows.
We call this plant "Like Skinny Ones." Botanists call it *Heracleum lanatum* Michx., cow parsnip. Unlike the vegetables already mentioned, the rhubarb is not edible once it is in bloom. It grows along creeks near the mountains. The hollow hairy stalks grow in a cluster, topped by big wide leaves hairy on the under side. It has a strong flavor. A taste for this has to be acquired. The young shoots are best for eating in early spring when they are tender and of less pungent flavor. To dry the wild rhubarb, cut or chop the stalks in lengths of one inch and steam them in a small amount of water until quite tender. More water may be added if necessary to prevent scorching. Drain the excess water and spread the cooked vegetable on a clean piece of canvas or muslin on a table in the sun. Cover it with cheese cloth to protect it from flies and stir often to hasten the drying process. When quite dry store it in a flour sack and hang it up in a well-ventilated place for a few days to be sure all moisture is dried out before storing in air-tight containers.

To freeze, cool the cooked vegetable quickly by a cold rinse, drain, sack in plastic bags and freeze immediately.

To prepare, soak 1 or 2 of the dried vegetables in warm water or stock to cover and let stand until it has taken up the liquid and is plump. Then add more liquid or stock and let it simmer for 10-15 minutes. Mix 1/4 cup flour with a little water to make a smooth thin paste. Add this to the simmering vegetable and stir vigorously to prevent lumps. Add 1 tablespoon of marrow fat or shortening and
let the rhubarb continue to simmer until the thickening is thoroughly cooked, 4 or 5 minutes. This should be a medium thickening. Serve sweetened.

The fresh vegetable is cut in one inch pieces, covered with water or stock and cooked in a sauce pan until tender, then thickened as above. This is a very delicate green color and quite tasty. It is the first fresh edible vegetable in the spring.

**BITTERROOT**

This is the state flower of the Big Sky Country. The botanical name is _Lewisia rediviva_ Pursh., bitterroot. The Crow name is "Bushy Root."

The root is dug during flower time when the cuticle is easily removed. The white root is dried in the sun until it becomes quite brittle.

To prepare, the roots are steeped and soaked in warm water until they are swollen and plump. Then they are drained and boiled in fresh water 2 or 3 times to remove the bitter taste. The roots are swollen to 2 or 3 times the original size in this process. The last cooking liquid is either marrow bone stock or plain water. The stock gives the best flavor. Thicken the stew with a small amount of flour and mix to make a thin paste. Add the small chunk of marrow or shortening about 1 or 2 tablespoonsful and sweeten to taste.

**BUFFALO BULL PERFUME** (_Madia glomerata_ Hoo.,)

The blossoms at pale pink stage of this plant are boiled. The first boiling water is removed, thus removing the bitter taste. The second boiling water is seasoned and the cooked blossom is eaten as a vegetable.
FRUITS
FRUITS

Most of the native berries, cherries, and other fruits can be sun dried to preserve for winter use.

As well as being responsible for the family's other foods, clothing, and shelter, the women and girls in a family gathered and prepared all of the fruit for drying or storing. Yet there was time for social activities and time to sit down for a visit. The older generation of Crow Indians was familiar only with native fruits and other foods known and used for hundreds of years. When new foods were introduced, amusing incidents occurred such as at the appearance of the first watermelon.

It looked like a squash or pumpkin, so it was cut in half. The Crows saw that it had red meat and many seeds. The women asked each other how they would cook it. Finally one brave cook built a fire, set her kettle of water on and cut up the melon and dropped the pieces into the kettle, covered it tightly and let it boil. When she thought it was about time to check, she peeked into the kettle and all she saw was the soggy, very unappetizing shriveled rinds and seeds floating. The broth was foamy. The women filled their coffee cups with the foamy broth and drank it and named it "water-pumpkin."

CHOKECHERRY

Now to go on with the native fruits, the chokecherry (Prunus virginiana L.) seems to be the most useful, from the root to the fruit. Early in the summer when the cherries turn bright red, the first picking began for fresh cherry stew or pudding. This was a welcome relief from the dried fruit.
CHOKECHERRY STEW

To prepare the stew, pick enough cherries to serve the family. In a kettle, add just enough water or marrow bone stock to cover the cherries and cook until the skin breaks. With a masher, mash the cherries only enough to free the pits or seeds. Then make a paste of flour and water to thicken the stew. Cover and let simmer until the thickening is well cooked. Cook about 5 or 10 minutes. Remove from the fire, add 1 tablespoon of marrow fat or shortening and enough sugar to taste. Serve warm with or without fried bread.

Fresh cherry stew like this can be served all summer until the cherries ripen. Then it is time to pick them to crush and pulverize the seeds to a paste then dry them in patties.

The modern day use of the chokecherry for jelly, jam, and syrup is best in the red-cherry state. The jelly is a beautiful clear red and the flavor is superb.

JELLY

Wash and stem the cherries, add enough water to cover fruit in a kettle. Let boil until the skin breaks. Mash the fruit and press through jelly bag and strain. Measure juice and bring to a boil. For each cup of juice add 1 cup of sugar. Boil rapidly to jelly stage. Skim and pour into sterilized jars. Pour melted parafin over the jelly when cold. Slightly rotate the glass as soon as the parafin is poured on so parafin will stick to the glass at the edges above the surface of the jelly.
TESTING FOR JELLY POINT

Dip a spoon in the boiling jelly. As the jelly nears the jelling point, it will drop from the side of the spoon in two drops. When the drops run together and slide off in a flake or sheet from the side of the spoon, the jelly is finished and should be removed from the heat at once.

Remove the foam from the jelly and pour at once into sterilized jars and glasses. The glasses should be dry; fill glasses to within 1/4 or 1/2 inch from the top.

SYRUP

Measure juice for medium syrup. Use 1 cup sugar to 2 cups juice. For heavy syrup, use 1 cup sugar to 1 cup juice. Boil sugar and juice until sugar is dissolved. Do not let the syrup boil down. Pour the syrup into sterilized jars, or bottles. Seal and store. Serve with hot cakes or waffles and ice cream for sundaes.

CHOKECHERRY JAM

Wash cherries, put in a kettle and add just enough water to cover fruit. Boil until skin bursts. Run the cherries through a sieve or food mill without breaking the seeds. Measure the pulp and juice together. To each cup of juice add 1 cup sugar. Cool until thick, stir often to prevent scorching. Pour into sterilized jars and seal.

TO CRUSH AND DRY CHOKECHERRIES

Wash ripe fruit and let drain and dry before crushing. Use
the finest knife or blade in a food chopper to grind the cherries. The nut blade grinds the best if you have one. The fruit should be put through the food chopper twice to grind the seeds. After the second time through the food chopper, the pulp is ready to measure. To each gallon, add 1 cup of lard and 2 or 3 cups of sugar. Mix well and make patties 1/4 or 1/2 inches thick or 2-3 inches in diameter. Place the patties on clean muslin or canvas, spread out on a table or drying rack in the sun. Turn over the patties daily until quite dry. Store in flour sack and hang up in a well-ventilated place for a few days to finish drying before storing in an air tight container.

TO FREEZE CRUSHED CHERRIES

Do not mix lard or sugar as in drying. Just fill freezer bags and freeze quickly. To use fruit, thaw out and proceed with the way you wish to use—in stew, pemmican, or Indian cherry spread.

INDIAN CHOKECHERRY SPREAD

Thaw out a quart or pint bag of cherries. Add 1/2 as much of melted marrow fat or lard and sugar to taste. Mix well and set in the refrigerator until the fat has congealed. Serve with hot biscuits, fried bread, or buckskin bread, or with dried meat.

DRIED CHOKECHERRY BUTTER SPREAD

To make butter out of dried patties, soak 1 quart or less with half as much warm water. Heat slowly until the patties disintegrate or break up. More water may be added if the patties take it up in
cooking. Break up the patties to make a thick mush, then add the fat and sugar as above. This keeps well and is a good accompaniment for pounded dry meat.

CHOKECHERRY STEW

Thaw out frozen fruit pulp in marrow bone stock, or warm water and cook through. The stewed pulp may be strained to remove the bits of seed. If it is not necessary, make a paste with flour and water and add to the cherries. Stir vigorously to prevent lumping. Cover and let boil for 5 minutes. Remove from the heat. If just warm water was used to cook the fruit, add 1 tablespoonful fat. If marrow bone stock is used it is not necessary to add fat. Sugar to taste and serve with warm fried bread.

CHOKECHERRY TEA

Select a stem about an inch or more in diameter and about 2 feet long. Remove the small branches and carefully peel the outer reddish brown bark. Scrape the greenish spongy second layer and use this for the tea.

To a quart of boiling water add a handful of shavings and let steep until tea is bright cherry red. If you want a stronger tea bring it to a quick boil then let it steep. Serve hot or iced.

BLOOD PUDDING

Blood is used in this pudding instead of water. It is collected in a kettle as the animal is bled when butchered. The blood is allowed to coagulate, then it is stirred and whipped to break up the congealed
mass and boiled. Meanwhile dried cherries 1/2 the amount of blood are stewed in a separate kettle then mixed with the cooked blood. Sugar is added to taste. This is a thin pudding.

CHOKECHERRY BEVERAGES

(See Beverages, page 56)
"I MAKE MY PEMMICAN"

Pemmican is still one of the very special foods in the Crow diet. Grandmothers and mothers carried a supply of pemmican for their lunch on their daily marches in the old days. It was not necessary to stop to prepare a meal while the Tribe was on the move. Each warrior took a supply when he joined a war party. This eliminated the necessity of a camp fire that would reveal the hiding place of the party to the enemy.

There is a story that has been handed down from the old days about a couple who left the main camp to get a supply of meat. Their camp was concealed by trees along the creek so they felt quite safe. One day the mother made some pemmican to take on their trip back to the main camp. It took longer than she had planned. Her son who was about two years old pestered his mother for bits of handout while he played around the camp fire. The husband watched his little son while he played. The boy asked his mother for more pemmican, so she formed a small size ball and gave it to him and he went outside. Soon he returned without his pemmican and asked for more. The mother gave him another small ball. Again he flew out the door to return later empty handed. The father watched his son's movements and became curious and alarmed. The next time the boy asked for pemmican his mother was about to question him when her husband quietly nudged her and said, "Give him a big ball of pemmican this time. He is not eating any of the handouts you gave him before. And he is not just running out with it."
So she made a generous serving and handed it to her son who was delighted to take it out of the lodge. Soon he returned in the arms of an enemy scout. The father quickly sat up and motioned his visitor to the seat of honor in their lodge and instructed his wife to prepare a quick meal.

While the wife went about her duty, the men visited by signs. The enemy scout told his host that he and his family were surrounded by a war party, and that he the visitor was posted near the camp to watch and to relay information on their movements and to count the number of men in camp before they attacked. When he came near the lodge to hide in the underbrush to spy, the small boy saw him and came out to share his pemmican.

The enemy scout said, "I was very hungry and your son shared his pemmican with me. He has touched my heart so I am going to give you time to escape. First, give every appearance by your activity that you are not aware of the enemy's presence. Build a fire, collect a little kindling and go after some water. Then as soon as I leave, crawl out of the lodge and go down to the creek and follow the bank down stream until you reach a wash out. You will be far enough away and out of sight of the watchful party here. Get out in the open and run for the highest hill to hide and watch until nightfall to continue your journey home. I will lead our war party up the stream and away from you. Before you go, leave your best suit of clothes for me behind the curtain by the entrance. Run as soon as I leave."

And he departed.
By this time the wife had served her guest and had packed the pemmican, her sewing and tanning tools and was ready to leave. As soon as the scout finished eating the host piled more wood on the fire while his wife went for water and collected a little kindling and secured the entrance flap. Then one by one the family crawled out of the shelter to the creek and down the bank. The mother put her child on her back and tied a strip of buckskin around him to her shoulders to free her arms so she could support herself as she felt her way along the bank. The three hardly breathed as they quietly picked their way along the bottom of the bank. They finally came to the washout and took a deep breath of air, climbed out and ran for the hills. They ran as they never ran before. The little family climbed the highest hill to hide among the rocks and kept watch over the surrounding country. They remained hidden there until nightfall then continued their journey home. The scout led the war party in the opposite direction and kept his promise.

TO MAKE PEMMican

Take the tenderloin from deer, elk, or beef. The tenderloin is the back strap, a long muscle on each side of the backbone.

After the carcass has been skinned, use a sharp knife to cut through the tough gristle-like skin over the backbone from the neck to the hip bone and to the ribs. Cut down next to the backbone to the ribs, the full length of the back and remove the long straps from each side of the backbone.
The tough gristle-like skin on the tenderloin is the sinew used for sewing. To remove the sinew for sewing purposes, remove the outer skin and fat by hand or knife. Next to the tenderloin is a white gristle covering the meat. Use a thin sharp knife to peel this white gristle-like cover carefully, beginning from the wide end of the long tenderloin. Then soak the sinew in water until the meat and fat adhering to the sinew scrapes off easily. Remove all trace of meat and fat, wash the sinew clean and spread it out smoothly on a flat surface to dry. When dry it will become loose from the flat surface. Store until needed.

After removing the sinew, the tenderloin is ready to be sliced and dried. Take the long tenderloin and cut down the center the full length to within one-half inch of cutting through. Then carefully slice the meat away from this center, cut one side at a time to make a thin sheet of meat, one inch thick. Handle carefully as this is very tender and will tear apart. Spread the sheet of meat on a drying rack or pole, or a window screen that permits the air to dry the meat from the underside. Turn the meat often to hasten drying. It is best to dry the meat on a breezy day. The meat must be quite dry. To make the best pemmican use tenderloin. However, other dried meat can be used, but remove all visible traces of gristle and connective tissues before roasting in the oven. This makes the pounding and pulverizing process easier.

Fresh ground lean meat can be used by dry-roasting it. Put the ground meat in a roaster or shallow bread pan and roast in a hot oven.
Stir often and pour off the drippings until the meat is brown and quite dry. Remove from pan and proceed with the pounding with hammer or hatchet on clean canvas until the hard kernels are mashed. Measure the pounded meat and place in a large mixing bowl or large dish pan; add stewed chokecherries, fat and sugar and mix well.

To roast the dried tenderloin or other dried meat, place it in a flat sheet or a shallow pan and roast in a hot oven 425° F., 10 to 15 minutes. Watch closely as the dried meat scorches easily. Turn once or twice then take out of the oven and sprinkle a little water on the meat on both sides; this makes a moist powder. Break up the larger pieces to convenient grinding size and put through a food grinder or chopper, using the fine blade.

Thaw out enough frozen ground chokecherries to equal one-half the amount of pounded meat or soak enough dried cherry patties in warm water to equal one-half the amount of meat. The dried cherry patties should disintegrate and take up most of the water. It is best to pour off excess liquid if the mixture is soupy. Then mix with melted marrow fat collected from cracked marrow bones and melt enough tallow fat or lard to equal the amount of cherries. Mix the cherries and fat with the pounded meat, add sugar to taste. Form into oblong balls to fit the palm of the hand. Place in a shallow pan to store in a cool place to set. Serve warm or cold.

Permican is such a special dish that it is sometimes worth a horse in exchange or gifts of wearing apparel and money today. There is a ceremony called the "Cooked Meat Sing" that features the permican as a means of barter; this is a thanksgiving ceremony. The sponsor
is usually the one who is especially thankful for an answered prayer or some event. This is also a means of rewarding or paying for the clan uncles' and aunts' prayers for the sponsor's well being.

It is the sponsor's duty to decide whom he wants to invite to the sing. He may invite a few or a great many. This depends on the amount of dried meat and chokecherries he has, because he has to prepare six small balls and a very large one for each of his guests. After the list of guests has been decided, the host prepares sticks from the chokecherry tree branches about the size and length of a pencil for each guest. This is the formal invitation and the guest is required to bring the stick to the designated place to be admitted. As he delivers the invitation the sponsor says only, "I sing for you at such and such a place and time," and gives the prepared stick to the person. The name of the ceremony is never mentioned. This is one event that must be carried through to the finish no matter what happens. It cannot be postponed or the set time changed in any way or else, it is believed, very bad luck will befall the host and sponsor. So to protect himself, the sponsor does not mention the name of the ceremony as he may not be able to carry out his obligations due to very serious circumstances beyond his control.

The host selects a man who is known to have "Bear Medicine" or owns a fossil as his medicine and as his protector to conduct the sing.

As each guest arrives he returns the stick to the host and is admitted. He takes his place in a circle in the room with his wife.
No children are allowed in the ceremony unless parents or grandparents bring a child purposely to seek a clan uncle's blessing or prayers. The clan uncle is given a horse for payment. The clan uncle is then obliged to give the largest ball of pemmican in return. No one is allowed to go in or out after the ceremony begins until a certain procedure in the sing is reached and the medicine man grants a recess.

The host hires the medicine man to conduct the sing and pays him with four articles of some value. The pemmican is placed before this man after the opening prayer and burning of the incense and he distributes the seven pemmican balls to each man, six small ones and one large one. This is the large one that is worth a horse. Following the opening prayer, the child for whom prayers and blessings are sought is admitted and he calls each guest by name and says, "I sing for you." The guest is obliged to offer a special prayer for the child or recounts a particularly pleasant dream of a prophetic nature for the child as a way of blessing. He says to the child, "I will arrive with you safely at this time of the year (a time which is usually in the future)." The Crow Indians have a great faith in visions and dreams. When a clan uncle or aunt receives a gift at any time he or she is obliged to recount a dream for the giver and this is considered a blessing or a very special prayer.

The medicine man begins the sing. After the opening prayer, burning the incense and smudging the medicine bundle, the bundle is passed to the guests. Each guest takes the bundle and holds it
to his breast and offers a prayer for the sponsor or for the person for whom the ceremony is conducted until every one has prayed. The bundle is then placed in the center of the circle. With a rattle to keep time, the sing begins. The medicine man sings first and he gives each clan uncle and aunt a ball of pemmican for the privilege of singing. He sings at least four of his medicine and power songs then any number of social or other songs that he particularly likes. The rattle is passed to the next guest and he does the same. If he wishes to buy very special prayers or blessings from an uncle he speaks for his large portion of pemmican and gives him a horse for it. If he does not have a horse he may give him a sum of money instead. The guests are required to give a gift to the sponsor and this is placed near the medicine bundle. The length of the sing depends on the number of songs each one sings; sometimes it lasts all night.
OTHER USES OF CHOKECHERRY

SHINNY STICKS

One of the ball games played in early spring until the chokecherry is in blossom is called the Shinny game and is probably best described as a kind of dry-land hockey. The stick is crooked like the hockey stick and it is taken from the chokecherry tree. A natural L-shaped root is the form needed to hit the ball and maneuver for a score. Each player prepares his ball stick. Sometimes it is like a Lacrosse stick, a shallow basket formed by two branches making a V and a long handle. This permits the player to scoop up the ball and run between the goal posts to score a victory for his team.

The ball field is stepped off by officials and players and goal posts are placed at each end like a football field. A bunch of eagle feathers are tied to each goal post. Someone is designated as the caretaker of the shinny balls and he carries several in a bag and officially launches a game after the captains line up with their players.

Each team chooses a side and waits for the official starter. He carries the ball to the center of the field as the players move in; he throws the ball in the air and gets off the field as quickly as possible. From then on each man is on his own to take the ball from the opposite team and send it flying through the air to the opposite goal. Guards are placed at each goal to keep the opposing team from scoring. When the ball is sent sailing between the other team's goal posts, as in football like a touchdown, it is a game.
This sounds easy but one game may last one to two hours or even longer as each side courageously defends the goal post as in football or as in hockey.

**ARROWS AND TEEPEE STAKES AND FIREWOOD**

Shafts for arrows and teepee stakes are taken from the chokecherry tree after the sap returns to the roots for the winter.

The chokecherry wood is a hard wood. It gives much heat in burning for cooking. A small amount of wood is needed to get this heat.

**MEDICINAL USES**

(See Medicinal Uses, page 10)

**SARVIS BERRY (JUNE BERRY OR SASKATOON)**

*Amelanchier alnifolia* Nutt., the botanist calls this shrub. The Crow name is "Berry Without Seeds." The Crow name for this fruit is misleading as this berry certainly does have seeds, but unlike the chokecherry or plum, one does not have to spit out the seeds when eating the sarvis berry. The name June-berry is also misleading; in the Big Horn Mountain area the berries are ripe in mid-July. The wood dries very hard and makes good tent stakes.

The berries are picked, washed and mashed and formed into patties to dry; or they can be water packed and canned in jars for winter or placed in plastic bags to freeze. They may be dried whole immediately after picking over and washing. The dried whole berries seem to retain more of their natural flavor.
FRESH SARVIS BERRY STEW OR PUDDING

To make fresh berry stew or pudding, allow about one-half cup of berries per serving. Wash and put the berries in a kettle. Cover with water or marrow bone stock and let boil until done. Mash the berries with a potato masher, make a paste of flour and water and add to the cooked berries, let boil. Add one tablespoonful of marrow fat, butter or lard and sugar to taste. Let boil until thickened, remove from fire and serve hot or cold without or with cream. It is best to make a thickening that is not quite as thick as medium white sauce.

SARVIS BERRY STEW FROM THE DRIED PATTIES

To make stew from dried patties, place the patties in a kettle, cover with warm water and bring to a brisk boil. Let cook until patties disintegrate. Drain the liquid but reserve it. Break up the patties, pour the liquid back into the kettle, make a paste of flour and water, add to the berries and stir to prevent lumps. Add sugar to taste and a chunk of marrow fat or lard. Serve warm or cold.

SARVIS BERRY PIE

Cook enough berries for a pie, about two cups of fresh or frozen berries per pie. Thicken the berries with cornstarch or flour paste, sugar to taste and add a teaspoon of vinegar or lemon juice or a chunk of butter. A few drops of almond extract may be added or a dash of nutmeg. Line a pie pan with favorite pastry and fill with the cooked berries. Roll out the pastry or make a lattice top and bake until the pastry is golden brown.
SARVIS BERRY JAM

Boil a kettle of clean berries in water until the skin breaks. Run the berries through a food grinder or chopper. For each cup of pulp, measure one cup of sugar. Mix well, add a little nutmeg and cinnamon if you wish. Bring to a rolling boil. If it is watery let it cook down a bit. Pour into sterilized jars and seal.

BUFFALO BERRY

The Crow name is "Red Jerky" or "Has Red Face;" the botanist says *Shepherdia argentea* Nutt. This berry is a rich source of Vitamin C and provides very good eating. The best time to pick is after the first frost when the berries come off the branches easily. Spread a tarp under the trees, then pull the loaded branches over the tarp and tap with a stick. The berries will fall off on the tarp. Wash and remove the leaves and bits of twigs and stickers as they float to the top of the water. Drain off the water and wash again with clean water to be sure that all of the leaves and stickers have been removed.

To dry the berries for winter, put them through the food chopper and mix some flour with the berries to form patties or scatter the mashed berries on a clean sheet and spread it on a table in the sun to dry. The patties must be turned over daily to dry thoroughly. The berries that are just scattered on a sheet must be stirred often. Cover berries overnight or collect and bring in the house at night to spread out in the morning again. When the drying process is completed, store in air tight cans or jars. Fresh
whole berries may be sacked for the freezer. Thaw out a sack in a bowl and watch the little ones help themselves to their portion of Vitamin C.

BUFFALO BERRY STEW

Because the buffalo berry is very tart, one half as much as chokecherry or the other berries is needed for pudding or berry stew. Marrow-bone stock is the recommended liquid for all berry stews, but plain water is acceptable. Soak the patties or the loose berries in enough water to cover until berries are tender. Add more water to replace the amount soaked up by berries, then add at least 2 cups more. Cook the berries to a brisk boil. Make a paste of flour and water and add to the berries. Stir vigorously to prevent lumping. Add sugar to taste and a lump of butter or marrow fat. Serve with fried bread.

CANNED BUFFALO BERRY STEW

To use the canned buffalo berries in stew, put the berries in a kettle and use a potato masher to mash them. Add more water, about two cups or more, to a quantity of berries and liquid. Heat to a boil, then add the thickening made from flour and water and sugar to taste. Add a lump of marrow fat, shortening or butter.

BUFFALO BERRY JELLY

Clean berries and cook in a large kettle. Add enough water to just cover the berries. Boil until the berries are cooked through. With a masher, mash the fruit. Put in jelly bag and squeeze the
juice or let hang and drip overnight to collect the juice.

Measure the juice and an equal amount of sugar, mix and let boil until it reaches the jelly stage. Pour into sterilized glasses or jars, seal and store. Buffalo berry does not need any pectin to jell. The test for jelly point is given in the chokecherry jelly section.

BUFFALO BERRY JAM

Prepare the fruit as for jelly. Use a food mill or a puree to remove the seeds. Collect the pulp, measure and proceed as for jelly. Mix and cook equal amounts of pulp and sugar together. Stir often as this scorches easily. Cook to the desired thickness, then take off of fire and pour into sterilized jars and seal.

WILD PLUMS

Plum trees (*Prunus americana* Marsh.) grow along creeks and do not bear fruit every year. Each of the wild fruit trees in Montana seem to bear a bumper crop only every two or three seasons. A damaging late frost in the spring also determines which of the wild fruit will be harvested.

The wild plum ripens in late August on the Crow Reservation. It is a delicious fruit eaten fresh. It can be dried for winter use or canned in jars. It also makes wonderful jellies and jams. Once the plums are hit by frost, they are not edible. The flavor changes and the fruit becomes soft and mushy and turns dark. Frosted plums cause a stomach ache worse than green apples.

Plums that are ripe enough to fall off when the tree is shaken are best for eating and preservation.
For drying, wash and pick over the fruit. Cook or steam the plums in water until the skin breaks. Remove from fire to cool. Drain the juice and collect for jelly. When cool enough to handle, remove the seeds, run the pulp through a food chopper, then spread the pulp on a clean sheet and let dry in the sun. Stir and turn over often for shorter drying period. Store in airtight containers or coffee cans. To can the plums cook as above but do not drain off liquid. Remove the seeds and add more water to the pulp and bring to a rolling boil. Pack in sterilized jars and seal.

WILD PLUM JELLY

To make plum jelly, add enough water to cover the plums in a kettle. Cook until the skins break. With a potato masher, mash the plums and put in a jelly bag with an equal amount of sugar and boil together until the jelly stage is reached. The test for the jelly point is given in the chokecherry jelly section. Skim the foam from the top and pour into sterilized jars or glasses, seal and store.

WILD PLUM JAM

To make jam, cook the plums as above. Let cool and remove the seeds. Use a food chopper to grind the pulp quite fine. Measure the pulp and an equal amount of sugar. Mix well and cook again to a gentle boil until it is as thick as you want. Stir often to prevent scorching. One teaspoon of soda added to a kettle of one gallon or more pulp will reduce the bitter taste and neutralize the acid. The
soda produces a greenish foam. Remove this before pouring the jam into sterilized jars or glasses.

GOOSEBERRIES

The Crows call this shrub "Spiny or Thorny Stem;" Two different species are useful, Ribes inerme Rydb. or the wild gooseberry, and Ribes setosum Lindl., or the half-breed gooseberry or redshoot gooseberry.

The gooseberry shrub grows along rivers or creeks where there is moisture. This is a prize fruit because the shrub does not bear every year. In fact the bumper crop comes after several intervening years. This is a perishable berry and it ripens in July and August. Protected by leather gloves and with a sharp hatchet the loaded shrub is trimmed and collected in a large canvas or tarp. With a stick the limbs are tapped to knock the berries off and collected on the tarp. The berries are washed in a large kettle of water and the leaves and stickers are removed.

To freeze, sack the clean berries in plastic bags and store in freezer. To can, boil the clean berries in water until the skin breaks; this is a very short time. Fill sterilized jars and seal.

The gooseberry used to be sun dried like the other fruits, but this is not practical today, especially if it can be sacked for the freezer to retain the natural juice and sugars.

GOOSEBERRY PIE

Line pie tins with favorite pastry and fill with cooked,
thickened and sweetened gooseberries. Dot with butter and top with pastry. Brush top with a sugar and cream mixture, and bake in a moderate oven at 375–400°F until golden brown.

GOOSEBERRY PUDDING OR STEW

For pudding or stew, open a quart jar or plastic bag of fruit and heat to a boil. Thicken with cornstarch or flour and sweeten to taste. Add water to frozen berries to cook. This is a tart fruit, so add water and sugar to suit the taste.

GOOSEBERRY JELLY

To make jelly, cook the berries in water until the skin breaks. Mash the fruit, then put in jelly bag and squeeze or let drip overnight. Measure the juice and add an equal amount of sugar. Cook to jelly stage. Pour into sterilized glasses or jars.

GOOSEBERRY JAM

Cook one quart berries in just enough water, about one cup, until skin breaks. Mash the fruit. Measure the three cups sugar and cook to the desired thickness and pour into clean hot jars or glasses. Seal at once.

ELDERBERRY

The botanical name is Sambucus melanocarpa A. Gray or Black Elderberry, or Sambucus pubens (Michx.) Scarlet Elderberry, both of which are edible. The Crow name is "Hollowwood Berries" and the shrubs are found near the mountains along the creeks where there
is a lot of moisture in the ground. The berries ripen in mid-July and August. They can be picked for quick freeze or canned in jars to store for winter. The fresh berries make delicious pie. To make pie, cook the berries, thicken and sweeten like huckleberries and fill a pastry lined pie tin, dot with butter. Roll out the other half of the pastry, cover, seal and flute the edge, brush top with cream, sprinkle with sugar and bake until the crust is golden brown.

ELDERBERRY JELLY

To make jelly, cook the berries in water enough to cover. Mash when done, put in jelly bag to drip. Measure juice and add to it an equal amount of sugar and boil to jelly state. Skim the top and pour into sterilized jars or glasses.

ELDERBERRY SAUCE

To make a sauce, cook berries, thicken and sweeten to taste. Add a chunk of butter and serve hot or cold with or without cream. Cornstarch may be used in place of flour and water paste.

WILD GRAPES

The Crow name for this fruit is literally "Slick Bear's Eyes;" the botanist's name, Vitis riparia Michx. Most of the common names for plants are quite descriptive even as are the names of people. Wild grape vines are found on trees along the rivers and creeks. The vines are cut and pulled off trees to get the grapes in the fall.
Wild grapes are very tart before frost but they are quite juicy. The acid content is too high to eat too many even for fruit. To make juice for jelly and dumplings it is not necessary to remove the grapes from the stem. Place the grapes and stem in a kettle with enough water to cover, and boil until the skin bursts. Put in jelly bag and let drip. Use the juice for jelly or boil it again and pour into jars to store for dumplings, syrup or fresh jelly later in the year.

**WILD GRAPE DUMPLINGS**

<table>
<thead>
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<th>Ingredient</th>
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<tbody>
<tr>
<td>3/4 cup grape juice</td>
<td>1 tsp. salt</td>
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<tr>
<td>2/3 teaspoon baking powder</td>
<td>2 tbsp. sugar</td>
</tr>
<tr>
<td>2 cups flour</td>
<td>4 tbsp. shortening</td>
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Mix dry ingredients. Rub in shortening. Stir in grape juice. Drop by spoonful or roll out and cut out in any shape, and drop into boiling sweetened grape juice. Cover tightly and let simmer for 30 minutes. Serve sauce over dumplings.

**WILD GRAPE JELLY**

Measure juice and equal amount of sugar. Mix and boil until the jelly stage is reached as described in chokecherry jelly section. Skim the foam off top and pour into sterilized jars or glasses.

**GRAPE SYRUP**

For medium syrup, measure one cup juice to one cup sugar. For heavy syrup one cup juice to two cups sugar. Boil juice and sugar until sugar dissolves. Pour into sterilized bottles or jars and seal and store.
WILD GRAPE SAUCE

Put a quart of juice in a kettle, boil and test for tartness. If it is too tart it may be necessary to add some water. Make a thickening of corn starch or flour and water and add to the boiling juice. Sweeten to taste. Add a chunk of butter and serve with fried bread. The whole grape could be used, but the fruit is all juice and seed, so using strained juice is more practical.

HUCKLEBERRIES

The Crow name for huckleberry (Vaccinium scoparium Leiberg) is "Like Trimmed" because the berry is flat on the blossom end as if it had been sliced off. The species that grows in our Big Horn Mountain area is a plant about 8 to 10 inches high and it grows near pine trees and where there is water. This species is red when it is ripe and quite sweet and juicy like the blueberry. The berries reach the size of buffalo berries and sometimes smaller. The flavor is more like the dark huckleberry than the blueberry (V. membranaceum Dougl.). The berries are sun dried as they come from the plant and stored in air tight containers. They may be canned and stored in jars also. The fresh berries may be used in pies like commercial berry pie filling. Cook the berries, thicken with cornstarch, sweeten and fill pastry lined pie tin. Dot with butter and cover with pastry and slit for the steam to escape. Brush the top with cream and sprinkle with sugar or egg white mixed with 2 tablespoons of water. Bake in moderate oven until golden brown.
HUCKLEBERRY JAM

4 cups crushed berries
1/4 cup lemon juice

8 cups sugar
1 cup liquid pectin

Pick over and wash berries. Crush well and add lemon juice. Add sugar and heat to boiling, stirring constantly. Boil rapidly for one minute. Remove from heat and stir in pectin. Skim and pour into clean hot glasses. Seal at once.

HUCKLEBERRY FRUIT BATTER PUDDING

Place thick layer of fruit in the bottom of a greased baking dish and pour cottage pudding batter over it. Bake in a moderate oven 375-400° F. about 30 minutes.

COTTAGE PUDDING BATTER FOR HUCKLEBERRIES

1 1/2 cups flour
3 teaspoons baking powder
1/2 cup shortening

1/2 cup sugar
1/2 teaspoon salt

Sift flour and baking powder together. Cream shortening, add sugar and salt and egg. Beat well. Add milk and flour alternately. Pour over fruit.

HUCKLEBERRY STEW

For stew, use the dried whole, canned or frozen berries. Cook in water just enough to cover berries until tender. Thicken with cornstarch or flour paste. Add a chunk of butter and sweeten to taste. Serve warm or cold with or without cream.
Other fruits used by the Crows in the same ways as the above mentioned ones included Red Raspberries (*Rubus idaeus* L.), red or squaw currants (*Ribes cereum* Dougl.) and other members of the currant family (*Ribes viscossissimum* Pursh.)
BEVERAGES

From an account that has been handed down, coffee as a beverage won immediate approval among the Crow Indians. One account was made by my grandmother who witnessed the incident. It seems that the trappers were the first to introduce this brew to the Absarokee war parties or scouts who had occasion to meet and to share their fare.

During their wandering and following the game along the foothills of the Big Horn Mountains, one day some of the men who smoked and visited remarked about the wonderful hot brew that the trappers gave them to drink with their meal. They expressed their desire for another taste. This aroused the listeners' curiosity and they wanted to taste this brew, also. So it was decided that the camp would move to the Elk River trading post to trade pelts for the articles that had become necessary. The men mentioned rifles and ammunition. The blacksmith who hammered sheets of copper and bronze into pots and pans and water buckets, axes and the beads and calico that the women needed were also mentioned. So early the next morning the camp was on the move for a cup of coffee.

In a few days the tribe arrived at the trading post. Teepees were set up, kindling was gathered and the lodges were made comfortable. There was an air of excitement as each family prepared the bundles of fur pelts for barter. At last when everyone was ready the women packed their bundles on their backs and left for the post. The trading began in earnest. Some traded for brass buckets and kettles; others traded for calico, beads and trinkets. The men
spent their time at the rifle and ammunition department. The smithy was busy forging knives, awls and other equipment that was needed. The man who started this long trek for his cup of coffee bought his bag of green coffee beans and rushed home with his wife. He passed on to his wife the instructions he was given on the preparation of the coffee beans. He said, "Roast these seeds slowly in the fire until they are good and brown. Then grind them and have it ready for my evening meal when I return from my hunt."

The anxious wife listened carefully to avoid any mistakes in the preparation of these strange seeds that she travelled so far to taste. As soon as her husband left she built a big roaring fire, then let it die down to a bed of coals. She opened the bag of coffee beans and scattered them on the coals and stirred them around until they were roasted quite brown. Then she separated the coals from the coffee beans. She did not forget that her husband told her to grind them. She took out her grinding stones from one of her parfleche bags and did a wonderful job of grinding.

That evening when the husband returned to his camp he announced that he was ready for the coffee first, for he thought of little else all day as he hunted. The wife happily announced that it was quite ready for him. She pulled out the rawhide bag that she used to store her food and took out handfuls of something and placed it in the wooden serving plate and handed it to her husband. It was the ground coffee all right, with chunks of fat! The husband asked, "What is this?"
She replied that it was the coffee prepared exactly as he instructed her that morning before he left. She added, "It did not taste very good eaten alone so I added the chunks of fat and we all thought it was delicious."

The husband was so disgusted he could not say a word but he gave her such a look that only a wife would know the meaning. When he regained his composure he told her that it was not to be eaten that way, it was to be boiled in water like meat! The poor confused wife jumped up and said cheerfully, "Why did you not say so in the first place? Here, let me fix it." And she did.

She took the coffee and poured it into the kettle of meat that she had prepared for their evening meal and set the kettle back on the fire. When it boiled and turned a dirty greasy brown color, she happily brought it to her husband and poured a bowlful. By this time the husband had lost his appetite for the meat and the coffee that he thought about all day. Who could drink this dirty greasy brew? He stood up, kicked over the whole kettle, and left his lodge.

This turned out to be an expensive and a very painful experience but the wife eventually learned to brew a good cup of coffee.

NATIVE BEVERAGES

The native beverages were brewed from three different plants. These are peppermint (Mentha arvensis L.), huckleberry plant and leaves, and chokecherry bark.
WILD PEPPERMINT TEA

Wild peppermint grows in the water along the edge of creeks, ditches, and springs. The Crow Indians call this plant "Shu-shu-ah." Originally this probably meant something else, but according to the language we speak today, it sounds like "Spit-spit." It could be "spit-spit" as the plant has a very strong mint flavor and you do spit it out after chewing a leaf or two.

To use this plant for tea, pull the plant up by the root, wash and drop the whole plant into boiling water and set it off the fire to steep until a light green tea is made. Serve hot or iced. The darker the tea, the stronger the mint flavor.

A year's supply is dried in the sun. The leaves and dried stems are stored in air tight containers and used like Lipton's tea.

HUCKLEBERRY TEA

The wild huckleberry plant is used to brew a beverage like peppermint. The leaves and stems are dropped into boiling water until the desired color of tea is obtained. This is like the modern black tea and is very good. Serve it hot or cold.

CHOKECHERRY BARK TEA

The third beverage is tea from the second layer of chokecherry bark. Remove the top reddish brown bark. The green spongy second layer is the substance for the tea. Drop a handful into boiling water and continue boiling until the tea is a bright cherry red. Serve hot or cold.
SWEETNERS
SWEETNERS

The natural sweeteners are honey (found in hollow tree trunks), box elder sap, cottonwood sap, and honey suckle plant.

BOX ELDER SAP

Tapping box elder trees (*Acer negundo* L.) for sap in the spring was quite a social event for the young people in the old days. The young people were permitted to tap and gather the sap. It was a sweet drink that everyone enjoyed.

COTTONWOOD SAP

The other source of natural sweeteners was the tender juicy inner bark of the cottonwood tree (*Populus* sp.). In the spring when the cotton on the trees bursts and is flying, the natural sugar in the sap is at its peak. Couples of young people were permitted to go out in the company of other couples to de-bark the large cottonwood trees, to scrape the wood and inner bark and gather the sweet sap in a pail to take home. This was enjoyed very much.

HONEY SUCKLE PLANT SWEETNER

Grandmothers instructed the children in their charge in the sources of edible plants, and how to utilize them. Sugar as such was not known. Only the natural sources mentioned below and above. In the spring when the flowers are in bloom, there is a plant that has flowers like honey suckle (*Castilleja* sp.). Groups of children would go out to gather flowers while the parents were engaged in
shinny games or other sports like horse races, or enjoying an outing for a picnic. When there was a supply large enough to permit the children to sit down to enjoy it, they did just that. Each would get a handful and each pulled out the individual white blossom in the stem that resembled blue balls and sucked the nectar. This was quite sweet and had a very pleasant flavor.
MEATS
MEATS

The source of the meat supply determined the movement and travel of the Crow Nation. Crow country was fortunately blessed with an abundance of large game which still exists today, except for the buffalo. These are deer, elk and antelope. Mountain goat and sheep have retreated to higher elevations. Moose was found in the mountains west of the Big Horns. Today their feeding grounds are located in and around Yellowstone Park area and the Jackson Hole Country.

The small edible game and fowl that served as target for young boys who practiced their bow and arrow shooting skill were cottontail, jack rabbits, prairie chickens, blue grouse, sage hens, ducks, geese, and curlews.

On occasions, beaver and porcupine graced the table, but these were not regular fare.

BUFFALO

Much has been written about the buffalo providing the backbone of the Plains Indian economy and tribal organization. This was quite true. From this shaggy animal of the Great Plains came food, clothing and shelter. Nothing was wasted from the grunt to the hooves.

The medicine men and women who looked to the buffalo for powers of prophesy and healing, sang songs to invoke the buffalo spirits' blessings in dealing with the problems at hand whether it was a search for guidance in tribal warfare or healing physical illness. The grunt was imitated in these sacred songs. The legendary buffalo
was one of the messengers who gave instructions and direction in visions and dreams to the men and women who sought these blessings in fasting and in prayer.

There is a legend concerning Seven Buffalo Bulls who found an abandoned baby and raised him to young manhood only to return him to his own people the Absarokee because they, the buffalo, had failed to change the boy into a buffalo. Before the young man joined his own family, his adopted fathers endowed him with their power and wisdom and a pattern of living for leadership and they watched over him.

The list of uses of the buffalo begins with the horns. These were shaped into drinking vessels, serving scoops and spoons. The matted hair on the shoulders and sides was removed during the winter and early spring when the winter coat was shed. The hair was cleaned, stored and used to line baby cradles. This became the first disposable diapers.

The rawhide served many purposes, as soles for mocassins; parfleche bags, painted and decorated for packing all personal belongings and equipment; dried food for the winter and berry picking vessels; shields that the warriors carried in battle; and the covering of saddle trees. Also ropes and bridles were buffalo rawhide.

Whole hides were used to cover a frame-work of willows to make a boat. Drum heads for tom-toms were rawhide.

Clothing, robes, bedding, floor covering, covering for teepee, dew cloth or interior curtains in the lodges, cradles and mocassins were made from tanned hides.
Even the buffalo chips were useful as fuel and fertilizer in planting the sacred tobacco seeds in the spring of the year.

Every bit of the meat was utilized. The flesh was boned to slice into big sheets to dry in the wind and sun. This was stored in the parfleche bags strapped with thongs and packed on horses as the tribe moved. The flesh of the buffalo is coarser and darker than beef, but the flavor is equal to the prime grass-fed Big Sky beef. The bones were cracked and boiled to extract the melted marrow fat. This was used in pemmican meat, with berry and vegetable stews.

After the animal had been bled, skinned, and gutted, each part of the entrails was separated. This required knowledge, skill and cleanliness. The marrow gut was carefully removed first. The casings used for weiners and bologna in present day meat packing houses were carefully removed and cleaned out in running water or streams in those days. The tripe was emptied and washed in running water or streams and peeled.

The hoofs were washed thoroughly and boiled with dried corn or hominy until the meat fell off the bones.

**DEER AND ANTELOPE**

Deer and antelope require skill in butchering. To avoid the wild taste or flavor, scent glands on the hind legs of a deer must be removed immediately as well as castrating the bucks before skinning. The scent bag to remove in the antelope is located in the mane.
The safest way to remove this is to cut off the whole neck at the base. A buck antelope must also be castrated before proceeding with skinning.

Removing these glands eliminates marinating venison and this wild meat in vinegar, sour milk, garlic or even wine to camouflage the game taste. When it is properly butchered and seasoned one week to ten days in a cooler or meat house, where the temperature is 35-40° F., there is no tastier or finer eating meat than venison. It makes the best hamburger and can be used in any favorite recipe for beef-burger, such as in meat loaf, spoonburger, meat balls or chili. The steaks may be used as beef. The fat should be trimmed off as it congeals quickly and sometimes has an unpleasant flavor. Care must be taken in roasting venison as it may become too dry. The temperature and length of time is ten minutes to the pound for venison and antelope. Venison and antelope liver, kidneys, and heart may be left in a brine overnight before cooking. These organ meats are best used immediately.

The hooves are used by the Crow Indians for decorations in wearing apparel, medicine bags, or ornaments. These are boiled until the hoofs fall off. They are quite soft and malleable while they are warm. So the tips of the hoofs are cut off and trimmed and a hole made at the tip to string the cone shaped hoof. When these are dry and are strung they make jingles.

The hides are scraped, stretched, and dried to tan.

**ELK**

Elk is butchered like beef except the wind pipe must be removed
immediately after bleeding. This prevents the wild flavor in the meat. The bulls must be castrated and the hide on the belly side removed before proceeding with the skinning of the carcass. Elk teeth are prized by the Absarokee. Only two are obtainable from each animal. These teeth are sewed or tacked to a woman's garment for decoration, usually the Crow bridal gown. The hide is tanned for wearing apparel and footwear.

MOOSE

Moose is butchered like the elk and this animal is as large or larger than the elk. The hide is also tanned for robes, mocassins and other wearing apparel.

MOUNTAIN GOAT AND SHEEP

Mountain goat and sheep require the care of deer.

JERKY

Jerky is made from all of the wild game mentioned. To make jerky the meat must be boned first. The large chunks of meat are then sliced quite thin with the grain into large sheets and hung on a horizontal pole held at each end by two upright poles in the sun. The meat is turned over frequently to speed up the drying. When dried it can be stored for future use.

Another method to dry jerky is to smoke it. A willow frame is built. Inside is a slow burning fire giving off much smoke from green fire wood. On the willow frame is hung the salted slices of meat, to cure in the smoke. When these are smoked well on both
sides they may be removed to a regular drying rack to finish drying in the sun. Once smoked, the flies do not bother the meat. Salted and toasted jerky is a very tasty snack. Especially if this has been smoke cured. The fresh meat is salted heavily while drying to make the salty tasted jerky.

Those who are fortunate enough to live where game is plentiful know that to produce the greatest eating enjoyment, the meat from all wild game mentioned here should be clean, fresh, and tender. Hanging the meat for one week to ten days is considered enough time for this seasoning. The meat is cut up after the seasoning period by the butchers today into roasts, round steaks, and chops or roast from the loin, flank, brisket, rib, shoulder, and neck. All are wrapped and labelled for quick freeze. It is best to use the frozen venison within four to five months. The flavor changes if it is kept too long in the freezer.

COOKING

The degree of tenderness depends on the cut of meat and the age of the animal. So the cooking methods of tender and tough beef are the same here. Moist and lower heat for the tougher pieces, and shorter time and higher heat for the tender cuts. Commercial tenderizers are recommended for tough cuts, also pounding with a mallet to break down the fibers. Larding improves the flavor of a roast cut. In several places insert strips of beef fat, salt pork or bacon and tie a string around the roast to keep the gashes closed while cooking.
The tougher cuts, such as the neck, flank, and shanks, make flavorsome mincemeats, stews, hamburgers, and sausage.

VENISON LIVER AND ONIONS

The venison liver is considered very choice. It may be sliced and left in a brine of one tablespoon salt to each quart of water for two to three hours before cooking. Liver is best if not over-cooked. Slice the number of servings to be cooked. Soak in brine, rinse, dust with flour, salt, and pepper and brown quickly on each side. Remove from skillet but keep warm. Add more fat and sliced onions and cook over lower heat. Stir often to prevent browning. Cook onions until transparent then return the liver to the pan with the onions. Add \( \frac{1}{2} \) cup warm water, cover tightly and steam for five to ten minutes. The onions should be browned evenly but not scorched.

LIVER SUPREME

One pound venison liver sliced thin. Roll in mixture of \( \frac{1}{4} \) cup of cornmeal, \( \frac{1}{2} \) teaspoon salt, \( \frac{1}{4} \) teaspoon pepper and sage; brown on both sides in four tablespoons butter or bacon fat. Drain all but two tablespoon fat from skillet. Add one cup heavy or dairy sour cream. Season with salt and pepper. Heat but do not boil. Pour over hot liver slices.

KIINEYS

Split the kidneys and soak overnight in a brine of one tablespoon salt to each quart of water. When ready to cook, remove from the brine, dust with flour, salt, and pepper and fry in two to three
tablespoons fat to prevent sticking or scorching. Brown on each side quickly, then cover tightly and finish cooking over medium heat five to ten minutes.

**HEART**

Wash the heart and let stand in fresh water overnight, then slice and cook as you would steaks.

**STUFFED BAKED HEART**

Trim and wash the heart and pat dry. Prepare your favorite dressing and stuff the heart. Rub with bacon grease or paste with melted butter as it bakes. Bake at 325-350° F. for one hour or until the dressing is done. Remove from oven, slice and serve.

**VENISON STROGANOFF**

4 tbsp. butter or shortening  
1 large onion chopped  
1 clove garlic minced finely (optional)  
2 pound ground venison  
4 tbsp. flour  
2 cups sour cream  
1 cup cream of mushroom soup or consomme

Salt and pepper to taste. Melt fat in cast iron skillet or dutch oven. Add onion and cook until transparent. Add venison burger and stir often while cooking until the red color disappears. Add seasoning with flour and mix well. Add soup and more liquid if necessary. Stir thoroughly and cook slowly 20 minutes over low fire or heat. At serving time stir in sour cream but do not cook. Serve hot over cooked rice or noodles. Serves 8 to 10.
**BRAISED VENISON**

Use slices of the tougher cuts for this, such as shoulder, brisket or tough round steaks. Use either the mallet to pound the meat tender or use commercial tenderizer. Sprinkle the slices with a little garlic salt. Heat enough fat to sauté the slices of meat. Arrange in a baking dish. Stir enough flour with fat to make a thin gravy to cover the slices. Cook for a few minutes. Add enough water to make a thin gravy. Pour over the slices and bake in a 350° F. oven until meat is done and tender. Do not overcook.

**COOKING OVER COALS**

**BROILED RIBS OR ROAST OVER COALS**

Remove the ribs intact from the backbone. Trim excess fat, then rub salt and pepper on both sides. Build a big fire so there will be a thick bed of live coals after the flame dies down. Adjust the grill over the coals and put the ribs on. Watch to prevent the dripping fat from bursting into flame to scorch the meat. Turn often to brown and cook evenly. The ribs may be covered with a large dishpan or lid to hold in the heat to hasten the cooking. This may take 45 minutes to an hour depending on the size of the ribs, and the amount of meat on them. To serve cut each rib apart full length. This may be eaten like corn on the cob with hands and napkins at each end of the rib, or the meat carved from the bone with knife and fork.

Another way to cook ribs in this manner is on an upright revolving spit by open flame. This must be basted often with bacon grease, barbeque sauce or melted butter.
OVEN ROAST RIBS

Trim and cut ribs as for pork spare ribs, rub salt and pepper and a little garlic over ribs, and roast in 350-400°F oven until brown and crispy, or in the oven broiler.

BOILED RIBS

Trim and cut ribs in serving size, cover with cold water in kettle and boil until tender. Serve hot with crispy brown fried potatoes, salad, and hot biscuits and butter, and chokecherry jelly.

ROAST VENISON WITH BARBECUE SAUCE

Trim fat off 4 or 5 pounds roast. Rub with salt and pepper. Place on a sheet of heavy aluminum, large enough that the meat will be surrounded, fold on top tightly to retain steam. Cover the meat with 1 cup prepared barbeque sauce or the one given in the following recipe. Fold the foil and seal tightly around the meat, test to make sure it does not leak. If not, place the meat on the grill where bed of coals is ready from briquette charcoal, or wood fire. Cook 2-2 1/2 hours turning once or twice. Test for doneness and cook a little longer if necessary. Take care to avoid puncturing the foil while cooking. Serves 8 to 10. Place more briquettes around the edge to insure longer cooking if necessary.

BARBECUE SAUCE

1/4 cup salad oil
1/2 tsp. garlic salt
1/2 tsp. dried thyme
1 tsp. salt
CHICKEN FRIED STEAKS

Cut one inch thick slices of steak or tenderloin. Trim all fat. With a mallet pound the meat on both sides. Dip slices in water and shake off the excess drops. Roll in flour seasoned with salt and pepper and a little garlic salt or accent if desired. Brown quickly in a 1/4 cup shortening in skillet. Cover tightly and finish cooking over medium heat. To serve remove steaks, add enough flour (about 2 tbsp.) to remaining fat and 1 cup water or milk to make brown gravy for potatoes or rice.

GOLDEN VENISON NUGGETS

Cut steaks or tenderloin as for chicken fried steaks. Combine 1 cup unseasoned fine dry bread or cracker crumbs, 1/2 cup grated parmesan cheese, 2 teaspoon accent, 1 teaspoon salt, 1 1/2 teaspoon dried leaf thyme or 1 teaspoon powdered thyme, 1 teaspoon dried leaf basil, and 1 cup butter or margarine melted.

Dip steaks in melted butter, then in crumb mixture. Place in single layer on foil lined bake sheet. Bake in 400° F. oven for 10 to 15 minutes.
VENISON STEAK STEW

1½ to 2 pounds round steak ½” thick 4 tbsp. fat
1 can cream tomato soup or tomato sauce ½ cup water
1 medium onion sliced ¼ green pepper minced

Cut steaks in strips, then in 1 inch pieces. Brown in fat. Add soup, water, onion and green peppers. Simmer until tender, about 45 minutes. Serves 6.

SWISS STEAK

½ cup flour 4 tbsp fat
2 tsp. salt 2½-3 pounds round steak 2 inches thick
½ tsp. pepper
1 can 8 ounce stewed tomatoes

Pound flour and seasoning into steak with mallet or edge of heavy plate. Brown on both sides in hot fat in a dutch oven or heavy skillet. Pour on tomatoes, cover tightly and bake in 350° F. oven until tender, 1½ to 2 hours. Makes 8 servings.

(All game meats mentioned above may be used in each of the recipes.)

ENTRAILS AND ORGAN MEATS

Beef has replaced the game entrails today. Tripe is sold in meat markets in many parts of the country. Packing and slaughter houses will sell some of the entrails after federal meat inspection and approval of the meat have been made. Tripe is the first stomach of the animal. Grass, hay and grain are contained in this stomach,
as the first stage of the digestion process begins. It is very important not to puncture any part of the entrails. This is sometimes referred to as the paunch. The first step is to empty the paunch and wash it in running water or stream. It is best to peel the lining and use only the white meat. Cut this up into serving sizes, cover with water in a stew kettle and boil until quite tender, 2 to 3 hours. Open two cans of hominy or whole corn and add to the meat. Cook a few minutes longer, then serve with tender golden-brown squares of fried bread and coffee.

DEEP FAT FRIED TRIPE

When tripe is fork tender and ready for the table, remove from broth, pat pieces dry in paper towels. Dip in egg and milk that have been beaten together in a bowl, then roll in flour and drop in hot deep fat and fry until golden brown and crispy.

HONEY COMB TRIPE STEW

Trim the fat and cook the honey comb tripe in water until very tender. Remove from the broth and cut into small bite-size pieces. Peel 2 or 3 medium potatoes and dice them. Add 1 large onion diced, 1 small green pepper chopped finely, 1 cup diced carrots. Cook in the broth and season with oregano, powdered cumin and chili to taste. When tender, add the diced tripe and heat through. Serve in bowls with fried bread, tortillas or crackers.
MANIFOLD TRIPE

This is one of the four stomachs. There are many leaves when it is cut open. This is usually about the size of a large basketball. It is attached to the paunch. Detach it carefully and cut open into four pieces like an apple cut in fourths. Swish each piece in running water and wash clean, clean, clean. Separate each leaf and wash it thoroughly. Peel off excess fat and the discolored tissue on the outside, then cut into serving size and boil until tender, or tear and remove the leaves and broil the remaining white meat over live coals. Turn over often until done. Salt and pepper to taste. Serve while hot.

MARROW GUT

This is the last step in the digestive process of the grain, grasses, and hay. The contents of these small intestines is the final nourishment that the animal is ready to assimilate or absorb. All of the necessary proteins, carbohydrates, fats, minerals, and vitamins that make up good beef are now in final form for the animal.

Trim off most of the fat. Do not puncture the casing. Tie a string at each end, and drop all of it into a pot of boiling water. Cook until fork-tender. Remove carefully from the broth. Cut into serving pieces and serve while hot, or dip the pieces in egg and milk mixture, then in seasoned flour. Fry in deep fat until golden brown.
This is delicious served with sourdough cakes or scrambled eggs for breakfast.

If this is from a young animal, it is not necessary to parboil. It can be immediately broiled over hot coals until well done.

**SHE-BO-LAY (INDIAN SAUSAGE)**

This entree ranks with the very best that any fancy chef can serve royalty. It is considered one of the tastiest of special dishes that the Crow Indians serve on very special occasions, such as a dinner for clan uncles and aunts, or a feast for a special occasion, such as a wedding, a celebration honoring the returnee from military action as from a world war, or a feast of Thanksgiving. Lucky is the child whose grandmother will slip even a very small portion on the side if this is prepared for an occasion. This dish may be described as Indian ring bologna as it is the weiner casing stuffed and filled with strips of tenderloin, then broiled in a bed of coals until half done, then dropped into a kettle of boiling water to finish cooking. Care must be taken not to overcook or the casing will burst and the soup will leak out. A family may prepare this food for just pure enjoyment without making it an occasion.

To prepare she-bo-lay the straight gut or colon is carefully removed from the animal. The cut ends of each intestine are tied securely to keep the contents from contaminating the rest of the entrails. This straight gut or colon is encased in fat in a circular
and straight back-and-forth pattern. An experienced person can use a knife without puncturing to loosen and remove the casing. The less experienced person will do well to use his hands and fingers the full length of 3 or 6 yards.

This colon is immediately taken to the stream or running water, untied and washed out thoroughly. Remove the fat carefully or it is easy to tear or puncture the casing.

Meanwhile slice the tenderloin into a large thin sheet as in preparing jerky for pemmican. Spread this out on a cutting board, and cut into a continuous strip 1\(\frac{1}{2}\) inches wide. Put this in a shallow pan, add 1 cup of cold water. Season with salt and pepper. Use more salt than you ordinarily use for broiling.

To stuff the casing is the tricky step. Take one end of the casing and fold the edge inside and at the same time insert the end of the strip of tenderloin into and with it. Gently push the meat in with one thumb, while holding the casing in the other hand. The casing is literally being turned inside out with the strip of seasoned tenderloin inside. If the casing is punctured or torn, tear it off there and continue with the rest of it until the desired amount has been filled. Allow about a foot length for each serving.

The stuffed casing may be stored in the refrigerator or a cool place until ready for the next step.

A fire made from large dry willows or cottonwood makes the best coals for She-bo-lay. Make thick bed of coals about 5 or 6
inches deep. Take the stuffed casing and lay it on the coals. With a blunt turning stick made from a limb of a tree, or a clean broom handle, turn the meat often so it will brown nicely and evenly, but not scorch through the thin casing. This will draw up or contract in this process. Test between thumb and forefinger. If it is quite firm to a slight pressure it is ready for the pot of boiling water. Before dropping it into the water, tie each end with a strip of material or bandage, as a string will cut through the casing. Brush off the ashes that adhere and put it into the kettle and let it boil until it looks swollen, and is firm to pressure between the forefinger and thumb. Let it boil gently about 15 to 20 minutes.

Remove from kettle using a long wooden mixing spoon to prevent puncturing. Let it cool off before cutting as the soup inside of the casing will be boiling hot.

Have ready strips of material 4 or 5 inches long to tie off each serving. When cool enough, cut each serving for the person while he holds just below the next tie, to keep the soup in his serving from spilling. This is eaten with the fingers.

BLOWN OR DRIED CASING

After the marrow gut and the She-bo-lay casing have been removed, there is left what the Crow Indians call "The Blue." This is next to the marrow gut. It is straightened out by trimming the fat, removing about 3/4 of the fat, then it is untied at each end and washed out thoroughly and salted heavily. It is turned inside out.
One end is tied again. With an old fashioned tire pump or a hand pump, blow air into the long casing until it is the size of ring bologna. Tie the end with a string and ring this around the jerky drying pole or clothes line to dry in the sun. After 2 or 3 days, let the air out and pack in dry container for future use.

UDDER

In the spring of the year when the buffalo cow was nursing a calf, the udder was a choice dish. In the old days this must have been boiled until tender. Today it is baked in a moderate oven 350-400°F until quite tender. It is then sliced and served. Today, a beef udder is a good substitute.

UNBORN CALF

The very young calf, even the unborn calf was quite a delicacy. This was removed, cleaned and boiled or roasted in the oven.

TONGUE

The tongue, particularly the buffalo tongue, was very choice.

Most of the adult Crow Indians living on the reservation today enjoyed buffalo in all the different ways of serving mentioned above. There was a herd owned by the tribe for many years until negotiations were underway to build the Yellowtail Dam on the Big Horn River. Unfortunately the buffalo pasture was located where the National Park Service envisioned a recreation center. Then the tribal herd became inflicted with brucellosis and had to be exterminated.
SMALL GAME

Unless there was a famine, or a very severe shortage of meat from larger game, the Crow Indians did not bother with small game. When they did they were a little choosy. Young boys practiced their skill with bow and arrows on rabbits. The young girls who went along to help with the butchering built the fire and roasted the kill over live coals to serve the young warriors imitating their elders.

Rabbit stew and boiled rabbit are other ways to prepare. Jack rabbit was served the same way as the cottontail rabbit. There is a variety of modern cooking methods to serve rabbit and hare. Since rabbit resembles chicken in flavor, it can be pan fried, fricassee, roasted with dressing or in a pie, or smothered. One's favorite chicken recipes may be used here.

BEAVER

The pelt of the beaver was a trade item, an article for barter with the fur traders. Other uses for the fur were for mittens, cap, lining for mocassins in winter for warmth.

The tail is quite a delicacy for those who have acquired a taste. It is quite rich so a person cannot eat very much of it. The tail is covered with a tough thick skin, which must be removed, then the tail is boiled until tender. Season with salt and pepper to taste and serve. This can be browned in the oven after it has been boiled until tender. A stew with vegetables is also recommended. Skin the tail and boil until tender, then add onions and potatoes, and
carrots, and continue cooking until the vegetables are done. Serve with biscuits or buckskin bread and chokecherry tea.

The beaver castor or musk was considered quite an item for perfume. This is an oily substance contained in a sac. It is also used with the incense in a medicine ceremony, and in some of the prayer ceremony of the Sun Dance.

The beaver is insulated with a thick layer of fat. Trim the fat and boil the meat in 3 changes of water. The last water should be kept boiling until the meat is tender. Serve it this way or brown it in the oven. Hot peppermint tea is an excellent beverage with the entree.

FOWL AND FISH

Prairie chicken, blue and ruffled grouse, sage hen, curlew, wild duck and geese were the native wild fowl in the Crow Country. In their wandering and travels the Crows found a bird they named "Enemy of the Birds." This turned out to be the wild turkey. He was not a native of our cold north country but in recent years several kinds of game birds have been planted here and they have become a part of our wild fowl community. These are the partridge, Chinese pheasant, and wild turkey. The State Game and Wild Life Commission designates the hunting season for all of these birds.

The wild fowl native to the Crow Country play a colorful part in our tribal lore. There is a story about the trusting and kind prairie chicken who was tricked into supplying berries and prying
Old Man Coyote loose from the ice to which he was stuck fast, only to be paid by sudden death, thus supplying the trickster with delectable roast chicken.

These predictable human traits in the animals and birds of our legends teach lessons in human nature, and the obvious "do's and don'ts" that are more meaningful to youngsters in story form.

There was a time in my childhood when prairie chickens were so plentiful that during cold weather in winter, the barren trees were literally loaded with roosting birds. There are a few left now and these have taken to the hills, away from the roads and highways, where a two-legged creature with a gun in his hands walks.

The ducks and wild geese supplied eggs in the spring and a welcome change in the diet.

A story is told about a warrior who did not return to his family after a battle with the enemy. The family finally gave up waiting for his return, having decided that he had been slain in battle.

In the fall that year the birds returned to their winter feeding grounds. A flock of geese flew high over the camp. It was noticed that the last one in the V-formation labored to keep up with the rest, because he was carrying a passenger. This happened each time the birds flew over the camp. Each trip the one with the passenger moved up closer to the head of the formation. Finally on the fourth trip they reached the leader's position. The geese circled the camp to give the warrior whom they had adopted and were taking to the southland for the last time to live forever with the geese, an
opportunity to bid his people farewell. This created quite a commotion in camp. Old Man Coyote was in camp that day and he saw what a hero the man became. Old Man Coyote became very desirous of that kind of hero worship and attention so he quickly found a flock of geese and tricked them into carrying him as a passenger and flying over the camp. The young men and boys in camp all joined in hollering and giving out ear splitting war whoops to distract the geese until the one carrying the passenger gave up in frustration and fell to the ground carrying Old Man Coyote with him. Instead of a hero Old Man Coyote became the laughing stock. He sneaked out of camp to escape the ridicule and abuse the people gave him for being such a fraud. The young Crow Indian listener learns from this story that one does not earn mass approval and respect from his fellow men by deceit.

**FRIED PRAIRIE CHICKEN, SAGE HEN, GROUSE, CURLEW, PHEASANT**

The prairie chicken is skinned and the entrails are removed quickly; then it is washed thoroughly. The bird is cut up for cooking and let stand in a brine of 1 tablespoon of salt to each quart of water overnight in the refrigerator. In the morning for breakfast, drain the brine and rinse the meat in clear water.

Prepare seasoned flour in a paper sack. Drop the rinsed dried pieces of chicken into the sack and shake to coat each piece. Fry in 3 to 4 tablespoons fat in a heavy skillet. Brown quickly on each side then lower the heat, cover tightly and finish cooking.
BROASTED CHICKEN

This was one of the methods of cooking the chickens in the old days. It is a combination of broiling and roasting over open fire and coals. This was the method employed by Old Man Coyote after the chickens danced around him and pried him from the ice in the legend.

Prepare the bird for cooking by splitting it in half. Brush the pieces with melted fat and secure them to a stick or a spit. Cook over the live coals. Turn often to cook and brown evenly. Baste often.

BROILED CHICKEN

This method is for young birds. Older birds require moist heat. Cut up chicken in serving sizes and pieces. Brown in butter on both sides in a heavy skillet. Remove to a broiler to finish cooking and brown nicely. Season with salt and pepper.

BRAISED CHICKEN

For older birds that are too tough to fry, braising is the method of cooking that is the best. Prepare the bird for cooking by cutting it into serving sizes. Dust it with seasoned flour: 1 cup flour, 1/2 teaspoon pepper, 1 teaspoon salt, 1/2 teaspoon paprika, 1/2 teaspoon powdered thyme and 1/2 teaspoon marjoram.

Brown quickly on both sides in a heavy deep skillet or a Dutch oven. Pour enough water or milk to cover the meat. Cover tightly and finish cooking in a moderate oven 350-400°F until tender and brown.
STEWED CHICKEN

Boil a tough chicken or bird until tender enough to bone. Remove the chicken from the broth and add to the soup 1 cup chopped celery, 1 cup diced potatoes, $\frac{1}{2}$ cup chopped onion. Cook until tender. Add the boned meat to the vegetables. Serve hot, with crackers or fresh hot rolls and butter.

CHICKEN AND NOODLES

Prepare home made egg noodles. Meanwhile add to the broth 1 cup chopped celery and $\frac{1}{2}$ cup chopped onions and the boned meat. Cover tightly and cook until tender. Add the noodles and continue cooking until noodles are done, 25-30 minutes.

NOODLES

1 cup all purpose flour
6 egg yolks or more if needed
1 teaspoon salt.

Blend salt and egg yolks. Stir in flour until well blended. Place on floured board and roll as thin as possible. Roll as for jelly roll and cut into very narrow strips about $\frac{1}{4}$ inches wide. Unroll the strips and let dry to store for future use, or drop them into the boiling liquid as in stew or soups and cook until done.

CHICKEN PIE

Prepare the chicken and vegetables as for stew. Thicken the soup with a little flour and water paste. Pour into a casserole
or bake pan. Prepare biscuit dough, roll out and cut and arrange on top of the mixture. Brush top of biscuits with melted fat or cream and bake in hot oven 425-450° F. until bubbly and golden brown.

**CHICKEN A LA KING**

Boil the chicken in a kettle until tender. Bone and cube the meat. Thicken the broth with $\frac{1}{4}$ cup flour mixed with $\frac{1}{2}$ cup water. Salt and pepper to taste, add 2 tablespoons butter and cubed meat. Heat through and serve on buttered toast or biscuits.

Grouse, pheasant, and partridge, sage hen and curlew may be substituted for the prairie chicken in the recipe.

**DUCKS AND GEESE**

According to our tribal legend, it was the duck who assisted Old Man Coyote in securing mud from the bottom of the sea to create land and separate it from the water. Old Man Coyote then proceeded to stock the land with animals, the fowl of the air, fish in streams, lakes, and ocean. He looked over the land and found it good but He was lonely so He created man out of mud and breathed life into him. Then He gave man all that He created for man’s use, food, clothing, and shelter, and instructed him on how to procure all of these things.

In time Old Man Coyote saw that man became lonely, too; so He put man to sleep, removed a rib from him and created a mate for him. This was the beginning of the human race.

And this is how one little duck helped to create the world.
There is one religious society which still exists today among the Crow Indians called the Tobacco Society. This comes closest to the idea of a tribal religion. However one belongs to the Society only through adoption. The Sacred Seed we call tobacco is the core of the ceremony.

The Society is divided into groups and each member of the group has his own individual prayer and each song to sing and dance to. Only members of his group are allowed to dance with him.

Some substitute societies include the duck, geese, the swan, the blackbrid, the otter, weasel and buffalo.

**DUCK AND GEESE**

Skinning these birds was the way the Indians dressed them. The only two methods of cooking were boiling and roasting over live coals or low flame. The Crow Indians did not include many ducks or geese in their diet.

**DUCK FRIED IN BUTTER**

The only method of cooking duck that appealed to me is as follows: Skin the ducks, split them and clean thoroughly. Boil in salted water until very tender. Remove from soup and let dry. Melt some butter in heavy skillet and brown the tender duck halves on both sides. Salt and pepper to taste.

**WILD GOOSE AND TURKEY**

Stuff the bird with any favorite stuffing, and roast as you would a domesticated bird.
FISH

Fish have never been a favorite food for the Crow Indians. Even today most of our families prefer meat to fish. There are many good eating fish in our streams and rivers. Number one is trout. The most common species are rainbow, brook, mackinaw and brown. There are also white fish, sturgeon, grayling, bullheads, catfish and ling.

Those who like fish have their favorite recipes to prepare fish for the table. The catfish grows to ten pounds and heavier. These can be filleted and baked, or served in steaks like salmon or halibut.
MEDICINAL PLANTS AND HERBS
The uses of the plants and herbs discussed and described here were probably known only to a very selected few at one time. The "doctors" in the old days guarded their knowledge of plant uses and kept them absolutely secret. It was the custom then as it is today to buy the secret formulas and the techniques. The purchaser was taught and was also sworn to guard the secret techniques and knowledge until he was ready to pass it on to a younger person.

In time many of these became household remedies and practices. The present childhood diseases against which our babies are inoculated were unknown. There were many other diseases that were unheard of such as polio, muscular distrophy, T. B., small-pox, measles, etc.

From the list of uses of plants and herbs, an inkling of the tribal health profile emerges. These people were healthy and robust. The men grew to immense size as has been observed and recorded by the early explorers, historians, the artists, such as George Catlin and others who came in contact with the Crow Indians. This was a society of the survival of the fittest and they were fit to live a life in the wide open spaces.

The human body requires proper and balanced nourishment to develop and to grow to the size the Crow men grew and to remain healthy. Nutrition as we know it today is concerned with balancing the "Daily Four," and how the body utilizes these to function properly. The Crow diet was basically protein balanced by the minerals, vitamins
and carbohydrates of the native fruits and vegetables. The natural sugars in the wild fruits were the only known sweetners. Salt as such was not known.

There was so much physical activity to provide food, clothing, shelter, and living by the chase that no one had time to sit down to become obese or to develop hardening of the arteries. Environmental sanitation was hardly a problem as the tribe was on the move almost daily. Water life was respected to the point of giving a share of one's food with a prayer that the tribe might continue to enjoy an abundance of food and that the "water people" might help in safe crossing of the larger rivers such as the Yellowstone, Missouri and Big Horn. Pollution of our streams was impossible with this kind of reverence and respect.

Personal grooming and cleanliness, as modern man practices, starts with a bath or a shower, with running hot and cold water. For the Crow Indian a daily bath, winter and summer, was also an absolute must beginning with the camp-crier's revelie at the break of dawn. In my early childhood, my grandparents assumed part of the child rearing responsibility. One of my vivid memories is a hole chopped in the ice so each of the family could take his daily bath no matter what the temperature registered. None of us could read it anyway. I have returned to the house many times with frozen braids, but this must have toughened me to ride horseback five miles to school during the winter when I reached school age.
The plants and herbs discussed below are not all of those used but they give an idea what diseases and common illnesses plagued the Crow Indians. None of the well-guarded secrets is included here.

**PEPPERMINT (Mentha arvensis L.)**

The Crow name is "Shu-shu-ah." A literal translation in Crow is spit, spit. Perhaps this has reference to the strong biting taste of the mint.

**Uses:**
1. **Beverage**
2. **Tonic and diuretic**
3. **Treatment of swelling**
4. **Snakebite**
5. **Flavoring for pounded meat**

**BEVERAGE**

From fresh plants, wash a handful of stems and leaves and drop them into boiling water and let steep until the tea is the desired color. The tea can be used hot or iced.

For winter uses, pick, wash and dry the stems and leaves in the sun. Pack in air tight containers and use as needed like any other tea.

**TONIC AND DIURETIC**

An infusion stronger than for beverage is brewed for the tonic and diuretic. Several cups of the hot tea are taken during the day.
POULTICE FOR SWELLING

A strong infusion is made from leaves and stems. The leaves and stems are removed to apply to the swelling and the tea is used to keep the poultice saturated until the swelling is reduced.

SNAKE BITE

There are two mint combinations for treatment of snake bite.

One, equal parts of peppermint leaves and stems, sagebrush (Artemisia sp.) and buffalo perfume (Madia glomerata Hook.) are boiled to make a strong solution. The plants are removed to apply to the wound after it has been bled and cleansed with some of the tea. The poultice is kept saturated with the heated solution. This is repeated with fresh poultice and solution until the swelling is reduced.

Second, a solution is made from a combination of mint and chewing tobacco. The mint and tobacco are used for the poultice to reduce the swelling and to draw the poison and infection out. The solution is kept as hot as the patient can stand and applied until the swelling is reduced.

FLAVORING FOR MEAT

To crushed or pulverized, dried, roasted or jerked meat a few crushed leaves of mint are added and mixed thoroughly and stored in a container for a day or so to flavor the meat.
HORSE MINT (*Monarda fistulosa* L.)

The Crow name is "bahpuize." It is used for respiratory congestion, for colds and coughs. A strong infusion is prepared from stems, leaves and blossoms, strained, and taken hot for colds and coughs, as often as necessary.

The plant is harvested in bloom, dried in the sun and stored in air tight containers.

BEAR ROOT (*Lomatium macrocarpum* (Hook. & A.) C. & R.)

The Crow word "ee-zay" could be translated to mean Big Root.

**Uses:**

1. Cough and sore throat
2. Reduce swelling
3. Deodorant to purify air as with incense
4. Colic
5. Additive to fertilizer for tobacco planting ceremony
6. In salve to treat sores

The root is harvested when the plant is in bloom. These are as large as beets and larger. The roots are roasted in a bed of live coals until cooked through then cooled and the burned outer crust is scraped and stored.

For a cold, shavings from the root are steeped in boiled water with a piece of fat. The infusion is taken hot as needed.

For sore throat, a piece of the root is chewed and the juice is swallowed as needed.
To treat swelling, a poultice is prepared by boiling shavings of the root in a small amount of water to obtain a strong infusion. Shavings are removed and applied to the swelling and kept saturated with the tea.

Ceremonial incense is prepared by scraping or shaving the root and sprinkling it on live coals. This is also used to purify and deodorize air.

Shavings of the root are mixed with buffalo chips and sacred tobacco seed for planting.

To prepare a salve, pulverized shavings are added and boiled with melted tallow with a small amount of water until the water is boiled off. The congealed fat is stored in a container and used as needed.

**NEZ PERCE ROOT**

Often this plant is called wild celery root.

Uses:

1. Additive to smoking tobacco
2. Incense
3. Sinus infection
4. Sore throat
5. Colds and cough
6. Ear ache
7. Abscessed ear

This is not a native plant but it has become so useful that the Crow Indians trade for it from their Nez Perce friends of Idaho.
and Washington state.

Shavings added to kinnikinnick (*Arctostaphylos uva-ursi* (L.) Spreng.) and tobacco make wonderful smoking. Shavings sprinkled on live coals produce a fine incense. Shavings are added to boiling water for a steam inhalent for sinus infection and congestion. A strained strong infusion made from mashed roots and boiling water is sniffed into the nostrils. A piece of root is kept in the mouth and the juice is swallowed for sore throat. For a cold and cough a strong infusion is taken as needed. One or two drops of the warm strong infusion is dropped in the ear for an ear ache. For an abscessed ear a poultice from shavings is applied to the affected area.

**ROSIN WEED (Grindelia squarrosa (Pursh.) Dunal.)**

The Crow name for this plant is "stink yellow blossom."

It is called Rosin or gypsum weed or curlcup gumweed and is harvested when blossoms have formed the curlcup. They are dried and stored.

**Uses:**

1. Cough and catarrh
2. After-birth pains
3. Reduce swelling
4. Incense to dispell evil spirits

An infusion is prepared from the blossom ends of the plant. The hot tea is taken as needed for cough. The same tea is sniffed into the nostrils for catarrh. Hot tea is taken after a baby is born to prevent or lessen the after pain. Hot compresses from the strong infusion are applied to reduce swelling. To dispell evil spirits, crushed blossom ends are sprinkled over live coals, and the whole house or lodge is smudged.
YARROW (*Achillea lanulosa* Nutt.)

The Indian name is "Prairie Dog Tail" or "eihpachi ziizze."

Uses:
1. As poultice
2. For salve
3. For tooth ache

Collect the plant when in bloom. Dry in the sun, pulverize or break up into small pieces and store in jars or air tight containers.

A strong tea to saturate poultice is made from boiled plant leaves and used for burns. To make a poultice for boils and open sores, boil leaves and stems for poultice. Tea is strained and used to keep poultice saturated.

Crushed leaves and stems are boiled with goose grease and strained. Added to congealed fat, this is used for salve.

A strong infusion is made from leaves and stems for tooth ache, and abscessed gums. Hold tea in mouth as hot as patient can stand. Repeat until ache subsides. For abscessed gums, hold tea in mouth same as for tooth ache until relieved of pain. Repeat until swelling is reduced.

YUCCA (*Yucca glauca* Nutt.)

The Crow name is "deer's needles" and others call it soapweed or spanish bayonette. It is used for shampoo and to wash hides in the tanning process. The root is cleaned, crushed and boiled in water. It is then strained and the liquid is used for shampoo or to soak the prepared hide to be tanned.
SWEET SAGE (Artemisia michauxiana Bess.)

Crow name is ":I:sahcizu:we" which means bunched roots or stems. Other species (A. cana Nutt. and A. frigida Willd.) are also used.

Uses:
1. Incense to purify and deodorize the air
2. Astringent and treatment of eczema
3. Deodorant for body
4. Foot bath for perspiration

For incense, dried leaves and fresh leaves and blossoms are sprinkled on live coals in a container and rooms in a house are smudged or in the lodge.

For astringent and eczema a strong infusion is prepared from the leaves boiled in water and strained. This is repeated several times a day to dry up the eczema. The warm tea is patted on and let dry for astringent.

A strong solution is prepared as for eczema and patted on the body and let dry for body odor. This is especially effective for under arm perspiration.

For a bath to combat foot odor and perspiration, a strong solution is prepared from boiling the leaves and stems. Strain and soak the feet in the solution as hot as can be tolerated.

WOLF'S PERFUME (Artemisia dracunculus L.)

False-tarragon sagewort is called "cetizba:ilicitee" by the Crows. It is useful for an eyewash and for snow blindness. A strong infusion is prepared from the stems and leaves. This is
strained through cloth or cheese cloth to remove all of the particles and the solution is dropped in the eyes as needed.

For snow blindness, the same preparation as above is made. The strained leaves are saved and used for a poultice on the eyes and kept saturated with the solution.

JUNIPER (Juniperus scopulorum Sarg.)

Often called cedar the Crows call this plant "Bukuxbe" or Holy or medicine wood.

Uses:

1. To stop hemmorhage
2. To induce appetite and settle upset stomach
3. Incense
4. To check diarrhea
5. To cleanse and heal after childbirth

To stop lung or nose hemmorhage, shavings from cedar wood are boiled in water, strained and given to drink as needed. The infusion is also sniffed into the nostril until bleeding ceases.

To settle an upset stomach, two or three berries are chewed and swallowed at intervals until the desired effect is obtained.

To induce appetite, one or two berries are chewed and swallowed a short time before a meal.

For ceremonial incense, dried leaves are sprinkled over live coals.

To check diarrhea, an infusion is prepared from boiling the needles in water, straining and giving after each bowel movement. This same infusion is given after a birth for cleansing and healing.
BALSAM NEEDLES (*Tsuga heterophylla* (Raf.) Sarg.) AND DEER'S PERFUME

Balsam needles, "ba:ilicitce" in Crow or "That which is fragrant" and Deer's perfume, "u:xizba:ilicitce," are combined for the following uses:

1. For cough and respiratory congestion for babies, also for pneumonia
2. Mild laxative for children
3. Needles for incense

The balsam needles and the leaves of the shrub are harvested in the summer and late fall. These are dried in the sun. The leaves of the shrub are then crushed and mixed in equal proportion with the balsam needles and stored in a container.

For a cold and cough, it is best to brew enough tea for the day, usually two or three cups. About two pinches of the dried leaf and needle mixture for each cup are sufficient. Heat the water and the needles and leaves to a boil then let steep, strain and store. It is best to take the tea hot.

For a mild laxative, a stronger infusion is prepared as above. Dried balsam needles are sprinkled over live coals for incense.

JOINT WEED (*Equisetum variegatum*)

Joint weed is called "Ghost's Pipe" or "ahpala:xizipcikizze" by the Crows. This plant is harvested in the blossom stage. The tip of the plant is velvety brown when it is ready. These are dried in the sun and stored for use.
Uses:

1. Diuretic

2. To relieve pain in the bladder and prostate area

For man or beast for failure to void, a strong infusion is prepared by boiling the joint weed in water, straining and taking the infusion hot as often as needed until relieved.

To relieve pain a hot poultice is prepared from the strained plant and applied to the lower abdomen. The hot solution is used to keep the poultice saturated.

**SNOWBERRY (Symphoricarpos albus (L.) Blake)**

"Bizkaxcia:" is translated "dog bush." The root of this shrub called buckbrush or snowberry by botanists is used any time as needed for animals for failure to void. A strong infusion is made from the crushed root boiled in water. A large amount is needed for horses. The solution is strained and poured down the animal's throat. This is repeated until the desired effect is obtained.

**ROSE BUSH ROOT (Rosa sp.)**

"Bickapapa:li:cihoaizia" or rose bush root is used in the following ways:

Uses:

1. To check diarrhea
2. To reduce swelling
3. To check nose and mouth hemorrhage
4. To relieve sore throat and tonsilitis
To check diarrhea, the root is washed, crushed and boiled in water and the infusion is given after each bowel movement.

To reduce swelling, the infusion as above is used for hot compresses until the swelling is reduced.

For hemorrhage of the nose and mouth, tonsilitis and sore throat, a strong infusion is prepared. It is sniffed up into the nostril until the bleeding stops. For hemorrhage from the mouth, the infusion is taken by mouth until relieved. For tonsilitis and sore throat, the infusion is used to gargle and some is swallowed.

**CHOKECHERRY BARK (Prunus virginia L.)**

"Bacua" can only be translated as cherry.

**Uses:**

1. Beverage
2. To check diarrhea
3. To cleanse sores, ulcerated sores or burns before other medication is applied

There is no set time to harvest the second layer of bark to prepare the infusion for the uses listed above. The trees grow and are found anywhere. The important thing is to get a piece of trunk of the tree long enough to peel the outer bark and scrape enough of the spongy green second layer to boil and then let steep for use.

For beverage, scrape about a cupful of the second layer of the bark and drop into a quart of boiling water. Let it come to a full boil, remove from fire, and let steep until color is bright cherry red.
This beverage can be served hot or iced.

For checking diarrhea, a strong solution is made from the second layer of bark and is given in place of all liquid intake until the desired effect has been achieved.

For cleansing sores and burned areas, an infusion as strong as above is used while it is warm. For an ulcerated sore, hot or warm compresses or immersing the area to soak if possible in the solution before other medication is applied. This is a very effective cleansing agent for an open wound. To soak an encrusted sore, a strong solution is prepared from the second layer of bark same as above. This is used to cleanse the infected area before other medication is applied.

**SNAKEWEED (Gutierrezia sarothrae** (Pursh.) B. & R.)

"Plant the Buffalo Will Not Eat," or "Bize:wai:lu:zisse," to the Crows is broom snakeweed. The leaves and blossoms of this plant are harvested, dried and stored for later use.

**Uses:**

1. Sinus infection
2. Kidney infection
3. Reduce swelling

To check the listed ailments above, a strong infusion is made by boiling the leaves and blossoms and straining and straining the warm solution. It is sniffed into the nostril for sinus infection.
To reduce swelling, if possible, the area is immersed in the hot solution and soaked and kept hot until relieved or hot compresses are applied.

For kidney infection, a milder infusion is prepared as above and is substituted for all liquid intake for the day.

"LIKE COMB" (*Echinacea angustifolia* (D. C.) Heller)

Uses:
1. For colds
2. To relieve a toothache
3. To relieve colic

Harvesting for the root of this plant is when it is in bloom. The roots are washed and dried in the sun.

For a cold a piece of root is kept in the mouth and the juice is swallowed. For a toothache, a piece of the root is softened in the mouth and held to the offending tooth. An infusion is made by crushing or breaking the dried root into small pieces and boiling it in water. This is strained and given in small amounts until colic pains are relieved.

**SNAKE WOOD** (*Rhus trilobata* (Nutt.))

The literal translation of the Crow *Ixasabale* is Snake's Wood, meaning a favorite hiding place for the snake. Others call this shrub skunkbush because of its odor.

Uses:
1. To treat eczema
2. To check diarrhea
The harvest is while the sap is still in the wood. The outer bark is carefully removed and the second is scraped off the wood and dried. For eczema, a strong solution is made from the scraped layer of the wood or shrub and used to cleanse and bathe the affected area and let dry. For diarrhea the same method of preparation is used and the infusion taken after each bowel movement until the condition is relieved.

YELLOW CURRANT BARK (*Ribes aureum* Pursh.)

The translation of the Crow "Bize:cihtazi" is yellow gooseberry or yellow currants. This plant is used in treatment of cankor sores. The inner bark of the stems is scraped and mashed or if it is dried it is pulverized to powder and applied to the sores in the mouth.

SWEET MEDICINE IN THE WATER (*Osmorhiza longistylis* (Torn.) D. C.)

The Crow word "Bimmuxba licikua" in translation means "Sweet medicine in the water."

Uses:
1. To treat biliousness from an over-active gall bladder
2. To relieve sore throat

This plant is harvested when it is in bloom. The blossoms and the roots are gathered and dried. A tea is brewed from the blossoms and drank until relief from biliousness occurs. For sore throat, the root is crushed and boiled in water. The tea is used to gargle. A piece of the root is chewed and the juice swallowed for sore throat.
CACTUS (Opuntia polyacantha Haw.)

The Crows say "Bickalia", others call it prickly pear.

The juice from the pulpy leaf is applied to painted rawhide surfaces. The clear, sticky juice dries to form an insoluble protective coating. The stickers of the cactus are removed and the leaf is split to rub on the rawhide surfaces. Red berries from another type of cactus are eaten fresh.

AMERICAN ELM (Ulmus americana L.)

The Crows say "Balitce" or "Good Wood."

Uses:
1. To check severe nosebleed and hemorrhage
2. To relieve constipation

The inner bark is scraped and boiled. The solution is sniffed into the nostril until bleeding ceases. A strong infusion is prepared as for hemorrhage and taken warm to relieve constipation.

RED DOGWOOD (Cornus stolonifera Michx.)

Translation of the Crow name "Bili:zi:zze" is red willow.

Uses:
1. Smoking
2. The white berries are used as an additive to the fertilizer for tobacco seed planting
3. The white berries chewed to dissolve tartar deposits on teeth.

For smoking, the outer red bark is carefully peeled off and the second layer is scraped down to the wood and dried thoroughly in
the sun. It is then mashed or broken into a coarse powder or particles and mixed with dried kinnikinnick, or broken coarsely fine and added in equal part to twist tobacco leaves. A little wild celery root shaving is added to this mixture to give off a wonderful aroma.

For fertilizer, the white berries are added to the prepared buffalo chip mixed with the sacred seeds, moistened and dropped into the prepared ground.

To remove the tartar deposit on teeth, handfuls of the bitter berries are chewed, some of the juice is swallowed.

COTTONWOOD (Populus sargentii Dode)

"Bahkuzua" in Crow is translated to "green seed Pods." It is used for sweetening and firewood.

In the spring of the year when the cotton flies, the bark of the cottonwood is ready to yield the sweet inner bark. This becomes a social occasion for the young people, one of the few times a young man may openly court his lady. With other couples, the young people were allowed to enter the woods to search and select the trees, to debark them and scrape the inner bark to collect the sweet sap to bring home to share with other members of the family.

The other use is for firewood. The dry wood gives a clean hot fire and it is plentiful. It is a soft wood so it was not difficult for the women who gathered wood to break it up into convenient loads and to pack it home on their backs.
BOX ELDER (Acer negundo L.)

The Crows call it "Bizbe".

Uses:
1. Sap collected for sweetning
2. Shinney ball stick

This tree belongs to the maple family so like the cottonwood, the sap furnishes a sweet treat when the sap runs in early spring. A chunk of the wood is chopped out of the horizontal trunk to fill up like a cup. The sap is collected when the cup is full.

Box elder wood does not break easily, so it makes a good ball stick. The natural L-shaped branches make the best shinney sticks.

KINNIKINNICK (Arctostaphylos uva-ursi (L.) Spreng)

The Crow Name "O:pi:zia" means "Mixed with Tobacco."

Uses:
1. Smoking mixture
2. To treat Canker sores in the mouth
3. To treat open sores
4. Ripe berries eaten fresh

This plant does not grow high. It clings to the ground and forms a thick carpet. The branches are broken to harvest the leaves. The leaves are dried in the sun and used for pipe smoking.

Dried leaves are pulverized and the powder is applied to canker sores in the mouth. An open sore is cleansed and the leaf powder is sprinkled over it.

In mid-summer when the berries are bright red they are edible.
BLUE JOINT GRASS (Agropyron smithii Rydb.)

"Bikka:ka:ze" or real grass is known to others as western wheat grass. The tough young blades are used to scrape eyelids to treat trachoma. Another remedy to treat cataracts is an eyewash prepared from camel water.

LICHEN (Evernia vulkina (L.) Ach.)

and

WILLOW BARK (Salix amygdaloides Anders.)

Lichen in Crow is "Awizce" or "Ground rust," and willow is "Bili:ce."

The willow bark and lichen are boiled together for an eye-wash solution for cataracts. This is used as needed.

SNEEZING PLANT

The Crow name is "I:wa:pi:axua," the translation of which is "what makes one sneeze."

The blossoms are collected after the plant has gone to seed. This is sniffed to induce sneezing to relieve nasal congestion due to a cold.

NEW GROWTH OF YOUNG WILLOW (Salix sp.)

The Crow word is "Bili:ce" for which there is no translation. An infusion from the crushed root of the new or young willow is used for scalp treatment for falling hair. Willow bark is chewed to clean teeth, to prevent cavities and to relieve headaches.
HORSE SCENT

The warty growth on the foreleg of a horse is boiled in a small amount of water and the tea or broth is given to quicken labor in childbirth. This causes the cervix to dilate for a quick and easy birth.

PEYOTE

The Crow word is "Bickalia" which is the same word for cactus for this plant belongs to the cactus family.

Peyote is not native to this area. It grows in southern Texas and Mexico and is used to treat many ailments but specific mention is made here for its use in easing the labor pains in childbirth. One or two buttons are chewed and swallowed.

PUFF BALLS

The Crow word for puff balls is "I:wa:izdalete," a translation of which is "Used to Make One Blind." The black powder in the puff ball is used to treat impetigo or open sores. The sores are cleansed and the powder is sprinkled over them.

LICHEN

The lichen (Evernia vulkina (L.) Ach.) mentioned above is parched, pulverized and sprinkled on canker sores. A tea made from the lichen is used to gargle for laryngitis and also as a mouthwash for canker sores. Lichen is chewed to prevent cavities.

The green lichen on pine trees (Ba:zi:le) in translation describes the yellow dyeing qualities of this fungi. It is used as incense to quicken labor in childbirth and as ceremonial incense.
FRAGRANT YELLOW BLOSSOMS \textit{(Matricaria matricarioides (Less.) Porter)}

The Crow word is "Ba:uhpazi:lilicitce" meaning "fragrant yellow blossoms. The buds and leaves are collected, dried and crushed to line baby cradles.

\textit{ROOT THAT TURNS BACK (Polygonum bistortoides Pursh.)}

The tiny white turned back tips of the root of this plant are raw-chewed for correction of diarrhea.
OTHER USES OF PLANTS AND TREES

SACHET

The fragrance of leaves and blossoms appealed to the Crow men and women as it does to people everywhere. It was possible to dry some so they retained their fragrance. To use, a little of the dried plants was moistened to apply to the hair, body or clothing. A drop or so of oil from beaver castor was sometimes added in some mixtures. The ingredients in the best sachets and perfumes were kept secret. One that is commonly known is a blend of three or four plants. These are horse mint blossoms (*Monarda fistulosa* L.), the plant that is called "smells like willows" (*Ivesia gordonii* (Hook) T. & G.), and seeds from a plant that grows in the lower altitudes along the rivers called "rough-end seed" (*Thaliotrum dasycarpum* Fisch. & All.) or purple meadow rue.

Fragrant pine needles and fragrant tree fungus are also used.

These leaves, seeds and fungi were dried, pulverized and mixed in the proportions that produce the most pleasing blends and were stored in a decorated buckskin pouch with the other articles of personal grooming.

A man was expected to be perfectly groomed daily. After his morning dip and bath, he returned to his lodge, ate and dressed in his fine buckskin clothes, combed and oiled his hair, painted his face and applied his perfume and he was ready for the day.
AN ACCOUNT OF A CROW BOY'S EXPERIENCE AT SCHOOL

A Crow man told of his experience with the use of his sachet when he started his formal education. This man was the pride and joy of his grandparents when he was a little fellow. In fact, as was the custom, the grandparents assumed the responsibility for his training in matters of custom and culture, so he lived with them from the time he was big enough to leave his own parents.

When he reached school age, he was enrolled to attend one of the reservation day schools. His grandfather was also ready to embark on this new road of adventure. The riding gear for both "men" was repaired and made ready for the Day and the saddle horses received extra care and attention. Days were marked off the calendar and at night the grandparents prayed over and held their sleeping little fellow tighter to their bosoms and heart. They knew that they could not travel with the boy into the new life; but this was one of the new doors the whiteman had opened on the reservation and the boy might just learn the new language to interpret and explain to them the whiteman's ways and customs.

In the meantime there was much preparation the grandmother must make. Extra pairs of mocassins must be made and put away, so hides had to be tanned and smoked. The boy might happen to find a pool of water to get his mocassins wet. They would not become stiff as they dried, if they were made from smoked hides. There was much jerky to be made, to roast and pound and mix with just the right
amount of wild peppermint to flavor and chunks of cooked hard back fat of beef for the lunch. Some of the dried meat would be roasted and salted for a snack during the afternoon when he played with the other boys. Some days the lunch would be boiled jerky, bacon and a potato and a piece of buckskin bread baked by the open campfire.

So the days came and went and the grandmother would lie awake at night and wonder what was ahead for the dear little boy who was sleeping so peacefully with not a care in the world.

At last the day arrived! Grandmother was up to greet the new day, build a fire and start the breakfast. Then it was time for the morning bath. The men were awakened and they all proceeded to the river. The coffee was ready upon their return, so when breakfast was out of the way, the ritual of dressing began. The boy's long hair was combed, oiled and braided carefully, the red paint was brought out and his face was painted as if he were getting ready for the warpath. New overalls, shirt and new moccasins completed the outfit.

With their lunch tied on the back of their saddles, grandfather took a pouch out of his pocket, opened it and put a handful of the contents into his mouth and chewed it thoroughly. He called the boy over and spit what was in his mouth into his hands and plastered it on the boy's head, and rubbed some of it on his clothes.

"Now you are ready for school!" he said and released the boy to enter the one-room school building.
The grandfather did not go home that day or any other day until he was certain that the boy was all right. Each day as the boy came out for recess grandfather noticed that the perfume or the sachet that he had applied to his grandson's head was not on his hair, so grandfather would hurriedly chew some more and plaster it on the boy's hair and send him back in. This went on for sometime until the teacher finally appealed to the interpreter to "Please tell the old man to quit plastering the boy's hair with manure!"

In time the boy's long braids were cut, his war paint was put away and he was able to ride to school alone.

**DIAMOND WILLOW** (*Salix amygdaloides* Anders.)

"Pe:latcizbale" or "Ravens' tree" as the Crows called it was used. After the sap receded into the roots in the fall of the year, this tree provided the rims for the tom-toms and wood for the saddle trees.

**SLOUGH GRASS**

This long tough grass is collected and tied together in a bundle to make a sweat bath switch. Each person makes and uses his own switch.

**DOG BRUSH BROOM** (*Symphoricarpos albus* (L) Blake)

The Crow name is *Iwai:cilakaxua:* meaning broom. Comfortable handfuls were cut and tied in a bundle to sweep out the lodge and the work area. This was the native broom.
CURRANT WOOD (Ribes aureum Pursh.)

Currant wood ("BlwIde") is resilient and quite strong. It was used for bows and pipestems.

RED HIRCH (Betula occidentalis Hook.)

Red birch which the Crows described as "like twisted rope or thread" grew straight and tall. It was used for teepee stakes, frame work for sweat bath wickiup, pipe stems, and quirts.

OTHERS

Tall willow trees (BiliIce) were used for sweat bath wickiups.

Sarvisberry wood (Amelanchier alnifolia Nutt.) is used for teepee stakes and teepee closure pins.

Chokecherry wood (Prunus virginiana L.) is used for teepee stakes, teepee closure pins, bows, hot fire for a quick meal. A few sticks of this wood gives more heat than other firewood. It is the hard wood in this area. The root forms a natural angle for a shiny stick. The wood dries and hardens for a root pick to dig roots.

Lodgepoles (Pinus contorta Dougl.) are tall straight, thin pines and are used for poles for teepees.

CLAYS

Red and white clay are mineral deposits in the earth and are very useful. The finely sifted red powder mixed with fat is the best and quickest healing salve for diaper burns and heat rash in the summer.
Usually one or two applications are sufficient. The red salve is also very good for athletes' foot. Severe wind burns and chap and sunburns also heal quickly when the red salve is applied.

White Clay, a fine white clay powder, mixed with water checks diarrhea. This is also used to clean and whiten buckskin. A wet paste is first rubbed in the soiled spot and let dry. It is then scraped off with a rough edge of an instrument or sandpaper till clean.
Emerging from the nomadic stone-age to the first encounter with the white man, the Crow Indian found a people from an entirely different world. The Indian stepped back to watch for an explanation and an understanding of these strangely behaved people. The sound of that clash of the first head-on collision of these two cultures has grown in volume to the present time in more than the gum chewing area.

We speak glibly today of the transition and finally assimilation into the white man's world. We even applaud the individual who seems to have made the grade. If the truth were known, there is not a Crow Indian who is comfortable in his own society who wishes to lose his identity. Those who have lost their tribal customs are the successful ones to become integrated and assimilated. These are the "white" Indians. Even they, in many cases, have to keep their Indian blood a secret to remain integrated or assimilated unless they are successful and influential enough in whatever field they are established to boast of this great-grandfather's Indian great-grandmother.

Those who are in a position to see some of the detrimental changes are saddened by the loss of some of the finer aspects of their tribal life and organization. For instance, the changes that have affected the very strict personal discipline that was quite adequate for the individual may be detrimental. Without discipline in his personal, religious and family life the Crow Indian was not considered a man.
There were established tribal protocol, social graces, personal etiquette and conduct based on a way of life and need. Many of these are in direct conflict with Emily Post and Amy Vanderbilt so that even today we find a constant hammering and erosion on what is left to conform to the mold that our own Indian benefactors believe to be the only way we will succeed as a people.

There is a need to mention these conflicts only in passing here. Now to go on to a lesser one in the habit of gum chewing. This personal habit has become naturally acceptable. In early Emily Post time it was not.

Gum chewing had a function in the Crow cultures. The native gum was not a product of the tropical tree from which Wrigley's spearmint and others on the market are made. The sources of our gum were the white pine (Pinus monticola Dougl.) from which the hardened resin was collected from the trunk of the trees and from a species of milkweed (Lygodemia juncea (Pursh.) D. Don) which was pulled up by the roots and exposed to the sun until the milk that oozed out dried and congealed to a rubbery substance. Hundreds of plants had to be uprooted to collect the congealed milk but it was done. One had to be careful not to expose the resin gum to fresh air while chewing or it became granulated and it had to be chewed all over again. If these two substances were chewed long enough, they softened somewhat and could be popped noisily.

The elders tell that this gum popping was all accepted practice for a young woman in the old days. She chewed daintily and popped her gum demurely, if one could accomplish such a feat. To attract
the attention of the opposite sex was one practice in particular. She was not allowed to attract or draw attention to herself otherwise in any boisterous manner or dress. She was taught to move and speak softly and to conduct herself with dignity and in a manner that would not cause any embarrassment to the men of her family.

The man on the other hand was allowed to dress in his finest clothes and trappings, to ride his fanciest mount and to openly sing and flirt with the ladies. Chewing-and-popping the tough pine resin and the rubbery milkweed substances was certainly a small leeway granted to the young woman to let the world know that she was around! So we continue to chew and pop gum at social functions, on the streets, in school, on campus, in church, and everywhere on the reservation.
APPENDICES
APPENDICES

A. THE CROW ALPHABET

B. GLOSSARY OF CROW INDIAN WORDS

C. PLANT LIST
APPENDIX A

CROW READING INSTRUCTIONS*

The Crow Alphabet

CONSONANTS

<table>
<thead>
<tr>
<th>Letter</th>
<th>Crow Word</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>bace</td>
<td>man</td>
</tr>
<tr>
<td>c</td>
<td>caxo</td>
<td>five</td>
</tr>
<tr>
<td>d</td>
<td>daxbe</td>
<td>hide</td>
</tr>
<tr>
<td>h</td>
<td>hule</td>
<td>bone</td>
</tr>
<tr>
<td>k</td>
<td>ka:le</td>
<td>old woman</td>
</tr>
<tr>
<td>l</td>
<td>bale</td>
<td>money</td>
</tr>
<tr>
<td>m</td>
<td>kamme:wu:k</td>
<td>let's go</td>
</tr>
<tr>
<td>n</td>
<td>bila:nne</td>
<td>stove</td>
</tr>
<tr>
<td>p</td>
<td>po:pahte</td>
<td>owl</td>
</tr>
<tr>
<td>s</td>
<td>sahpua</td>
<td>seven</td>
</tr>
<tr>
<td>t</td>
<td>tawe:k</td>
<td>it's hot</td>
</tr>
<tr>
<td>w</td>
<td>awe</td>
<td>land</td>
</tr>
<tr>
<td>x</td>
<td>xuahce</td>
<td>skunk</td>
</tr>
<tr>
<td>z</td>
<td>zipia:</td>
<td>mud</td>
</tr>
</tbody>
</table>

After reading the above list, look at the list again and note not only the underlined symbols, but also study carefully the entire word. This will help to speed your reading later on.

*Mr. Ray Gordon, linguist working on a written Crow language, developed the alphabet and reading system here.*
<table>
<thead>
<tr>
<th>Letter</th>
<th>Crow Word</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>aptè</td>
<td>liver</td>
</tr>
<tr>
<td>a:</td>
<td>a:pe</td>
<td>neck</td>
</tr>
<tr>
<td>e</td>
<td>aluke</td>
<td>meat</td>
</tr>
<tr>
<td>e:</td>
<td>de:ize</td>
<td>tongue</td>
</tr>
<tr>
<td>i</td>
<td>bile</td>
<td>water</td>
</tr>
<tr>
<td>i:</td>
<td>i:le</td>
<td>blood</td>
</tr>
<tr>
<td>o</td>
<td>kok</td>
<td>that's it</td>
</tr>
<tr>
<td>o:</td>
<td>o:pe</td>
<td>tobacco</td>
</tr>
<tr>
<td>u</td>
<td>huec</td>
<td>wind</td>
</tr>
<tr>
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<td>u:ixe</td>
<td>deer</td>
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<tr>
<td>ia:</td>
<td>ia:</td>
<td>mouth</td>
</tr>
<tr>
<td>ua</td>
<td>bua</td>
<td>fish</td>
</tr>
<tr>
<td>ua:</td>
<td>bua:ette</td>
<td>coyote</td>
</tr>
</tbody>
</table>

(Since translation of single words out of context is extremely difficult at some points, do not allow this to detract from the Crow words themselves.)
The Crow accent system is very much different from English. It may take considerable practice before the accent can be read easily on new words. Try to learn the accent from a study of the words themselves first. Look again at the words on the previous pages and note their accent mark.

Pronounce and compare the following:

- bale /'bæl/ money
- bale /'bæl/ wood
- ahpe /'æhpe/ evening
- ahpe /'æhpe/ his ear
- da:sua:/ /dɑːˈsuːə/ your house
- da:sua:/ /dɑːˈsuːə/ their hearts

Note the accents on the following:

- hawate /ˈhɔwət/ one
- pilake /ˈpɪleɪk/ ten
- cicaxe /ˈsɪkɑːx/ circle
- bilapce /ˈbɪləpθ/ ashes
- kukwe /ˈkʌkwə/ pumpkin
- binnaxce /ˈbɪnəkθ/ fence
- iaxuke /ˈɪəkθ/ fox
- u:wate /ˈjuːwət/ iron
- bla:wakze /ˈblaːwəkθ/ summer
- bakkahpe /ˈbækəhθ/ hail
- baxawua /ˈbækəwə/ bread
- ilapxe /ˈɪlæpθ/ his father
- ba:lappia /ˈbæləpθia/ pudding
- ba:puxde /ˈbæpʌθ/ otter
LENGTH

The long mark : is placed following the vowel of the long syllable. The combination of the long marks and the syllable accent determine the pronunciation of the words.

Pronounce and compare the following:

- b'ale  money
- b'ale:  winter
- b'ale  water
- b'ale:  fire
- dape  your nose
- dape:  your neck

Study carefully the following words. The accent is the same for all of them, so the only difference is the long mark. By studying these words you can learn the effect a long syllable has on the sound of a word.

- b'azua  my song
- b'azua:  my neck
- b'azua  my spit
- b'azua:  my house
Read the following sentences:

1. kamma:le:wik

2. basi:la:le iluzzizik

3. cila:klak bi:hpimma:cik

4. bile hammakkaweh

5. kalaze: bai:lawisse:k

6. bilicikua: basitciwa:k

7. hu:lez ammalapazkua: kuzba:le:k

hinne azkape hua akduxxi:kucke hawak. de:la: dakke
ditua: hinne. bace:im kuzbasak dappi:lo:ak kuzbasak:
ditdak dakke hua kok. isu:watbalaxxia ba:ku:lu
dutcilak hawak. i:ci:le azem midias:pa:zku:u: kuh
hawak. hilen zo:pat. immio:lo:ak kammacettu:k basse:
k: alaxcia:hu:z zohpa: immek huk. ko:te zo:pat-tacia
APPENDIX B  GLOSSARY OF CROW INDIAN WORDS

BREAD

1. fried bread - ba:xawuattammizze
2. buckskin - ba:xawuappacuo
3. biscuits - ba:xawuaitale
4. yeast bread - ba:xawuappua:

VEGETABLES

1. wild turnip - ihé
2. wild carrot - bikka:sáhte
3. bitterroot - ba:isa:xa:we
4. potato - ba:isa:zizce
5. milkweed pods - cétizbaxupe
6. wild rhubarb - ba:xaláxxate
7. succatash (corn & pumpkin) - cilici:tua
8. rosehips - bickapé
9. sego lily - izzie:lo:ze
10. dried pumpkin corn (see above no. 7)
11. wild onions - bitxua
12. wild parsley - ba:isa:zizbite

BERRIES

1. chokecherry - bacu:ta:le
2. sarvis berry - bacu:wu:lete
3. buffalo berry - ba:liszhizze
4. plum - buluhpe
5. grape - dixbiic:izdzise
6. gooseberry - bice:cihtie
7. huckleberry - kapiliialia:zde
8. elderberry - balawu:letbacua
9. raspberry - baxohke
10. strawberry - izko:ziite
11. currants - Yellow - bize:cihtazi:ile
   Black - bize:cihtazipite
   Red - bize:cihtahizze
12. sego lily - ize:lo:ze
13. rose hips - bickapé

CHOKECHERRY USES
1. stew - bailappia
2. Indian butter - bacustale:
3. blood pudding - innappau
4. beverage - balapu:wilizipite
5. Modern uses - jam
   jelly - ba:apcisua
   syrup - bilizi:zde
6. pemmican - ia:xze
7. Other uses - bow - balaxxia:ze
   arrow - alu:te
   teepee stakes - i:kka:ze
   medicine - i:wai:lo
   ball stick - i:wupcilitua
BEVERAGES
1. chokecherry tea - balapi:Wilizipite
2. huckleberry tea - kapili:liazi:Wilizipite:pe

SWEETNERS
1. honey - akihcilakka:z bilizi:zde bitale
2. box elder tree sap - bizbwilaxe:
3. Cottonwood sap - bahkuzu:wilaxe:
4. honeysuckle -

MEATS
1. antelope - u:xa:ze
2. beaver - bilape
3. buffalo - bize:
4. cottontail rabbit - i:sa:bi:te
5. elk - i:ci:lika:ze
6. mountain goat
7. mountain sheep - i:saxbu:a:tahe
8. moose - apizbia:
9. venison - u:ixe
10. porcupine - apa:liia
11. squirrel - izdale:zcia

ORGAN MEATS
1. tongue - de:ze
2. brains - ciwuse
3. sweetbreads - a:palazce:wo
4. kidney - ə:xohke
5. liver - aptə
6. mountain oysters -
7. lung - da:xo
8. udder - atcite
9. heart - da:se
10. spleen - pia:xîte
11. shebolay - zi:pole
12. marrowgut - alacia:

DRIED MEATS
1. jerky - ba:li:ze
2. tripe - i:zbua
3. blown casing - zi:pka:tau
4. hoof - ice

FOWL
1. prairie chicken - ci:ckè
2. blue grouse - ci:cki:puluppe
3. partridge
4. duck - bia:xâ:ke
5. goose - bi:le
6. wild turkey - daka:kîsko:cìa:
7. pheasant - ci:cki:packite
8. sage hen - ci:ckìse:
9. ruffled grouse
10. curlew - ba:i:wa:ze
FISH
1. trout - buaxaxe
2. bullhead - buapi:wize
3. catfish - buapi:wize
4. whitefish
5. sturgeon
6. grayling
7. ling - buai:xa:xase

PLANTS
1. wild peppermint - zuzzua
2. horse mint - bahpu:ze
3. yarrow - cihpatci:zkizze
4. soap weed - uixizbatzuakizze
5. sage - i:sa:hxu:we
6. rosin weed - ba:uhpazi:ilitizia
7. wolf's perfume - cetizbailicitce
8. balsam needles - ba:licitce
9. dog brush - bizkaxcia:
10. ghost pipes - ahpala:xicpcikizze
11. chikecherry - bacua (bacu:ta:le)
12. buffalo won't eat - bize:wa:lu:zisse
13. wild gladiolas - i:wala:ku:kuluhackizze
14. snake wood - ia:xasaizbale
15. wild anise - bimmu:xba:licikua
16. cactus - bickalia
17. American elm - balitce
18. red willow - bili:zizze
19. cottonwood - bahkuzua
20. box elder - bizbe
21. blue grass - bikka:ka:ze
22. willow - bili:ce
23. sweet sage - i:sahcixu:wi:licitce
24. fragrant yellow buds - ba:uhpazi:licitce
25. buffalo bull's perfume - cilapizba:licitce
26. smells like willow - bili:titdia:
27. juniper berry - buluxba:wa:cu:ua
28. cedar - buluxbe:
29. rose bush root - bickapapa:li:ci:hcizia
30. sneezing plant - i:wa:pi:axua:
31. bear root - ise:
32. deer's perfume - ixizba:licitce
33. sweet grass - bacua:te
34. wide blade grass - bikka:zu:zu:hkate
35. fungi pine - ba:izi:le
      puff balls - i:wa:izdalete
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36. horse scent - ci:ilizba:licitce
37. pine rosin - bizka:ka:ze
38. tree mushroom
39. cottonwood bark - bili:zizze
OTHER PLANT USES

1. diamond willow - pe:\latcoizba:\n
2. kinnikinnick - o:\pi:zie

3. red willow bark - o:\ptawihce

4. slough grass - bikka:zu:zuhkate

5. dogbrush broom - iwa:cilakaxu\n
6. currant wood - pipe stem - i:pcu:pe

7. red birch - basa:pu:te

8. lodgepole - azi:lia:
The author has a collection of dried, pressed, and identified specimens of all plants mentioned here and in the preceding text. A duplicate collection is on file in the Herbarium at Montana State University at Bozeman, Montana.


5. *Amelanchier alnifolia* Nutt., Serviceberry, Sarvis berry, Shad, Juneberry, Big Horn County on Robert Yellowtail cow pasture south of Lodgegrass, grows in clumps, tall trees on sunny slopes, July 30, 1968, page 39, 115.


25. *Juniperus scopulorum* Sarg., Treelike juniper, page 98


34. Nez Perce Root

35. *Opuntia polyacantha* Haw., Cactus, Plains Prickly pear, Big Horn County, southeast Wyola, Owl Creek, on sand hill, July 5, 1968, page 105.

36. *Osmorhiza longistylis* (Torn.) D. C., "Sweet medicine in water," longstyle sweetroot, Big Horn County, 2 miles below Lodgegrass Canyon on river bank in moist shade of cottonwood trees, June 20, 1968, page 104.


40. *Prunus americana* Marsh., Wild plum, Ed Toineeta place, 7½ miles south Lodgegrass, Big Horn County, growing along bank of Little Horn River, June 1, 1968, page 43.


48. *Ribes viscossissimum* Pursh., Currant, Big Horn County, 10 miles
southwest Wyola on Ray Powers Ranch, road, Sept. 18, 1968,
page 51.

49. *Rosa nutkana* Presl., Nootka Rose, Big Horn County, Ed Toineeta
place, 7\(\frac{1}{2}\) miles south Lodgegrass, growing on creek bank,

50. *Rosa* sp., page 100.

51. *Rubus idaeus* L., Red Raspberry, Big Horn Mts., west of Buffalo,
Wyoming, growing in clumps along streams and in open fields,
Aug. 9, 1968, page 51.

52. *Salix amygdaloides* Anders., Ravens' Tree, Ed Toineeta place,
Big Horn County, 7\(\frac{1}{2}\) miles south Lodgegrass on river bank,


54. *Sambucus melanocarpa* A. Gray, Black Elderberry, Big Horn
west of Buffalo, Wyoming, Aug. 9, 1968, page 46.

55. *Sambucus pubens* Michx., Scarlet elderberry, Big Horn Mountains,
west of Buffalo, Wyoming, Aug. 9, 1968, page 46.

56. *Shepherdia argentea* Nutt., buffaloberry, Owl Creek, Big Horn
County, 15 miles southeast of Wyola, along creek bank, Sept.
14, 1968, page 41.

57. *Symphoricarpos albus* (L.) Blake, snowberry, Ed Toineeta place,
Big Horn County, 7\(\frac{1}{2}\) miles south Lodgegrass on river bank and

58. *Thalictrum dasycarpum* Fisch. & All., "Rough on the point,"
purple meadow rue, Big Horn County, 7 miles south lodgegrass,
growing on highway barrowpit, July 10, 1968, page 111.

60. *Ulmus americana* L., page 105.

61. *Vaccinium membranaceum* Dougl., Huckleberry, Crow Reservation, Big Horn County, growing under pine trees in mountains or in open spots, especially following a fire, Aug. 9, 1968, page 49.

62. *Vaccinium scoparium* Leiberg, Low Red Huckleberry, Crow Reservation, Big Horn County, growing under pine trees in mountains, also grows in open fields, Aug. 9, 1968, page 49.


64. *Yucca glauca* Nutt., Soapweed, Big Horn County about 5 mile south Wyola, Otto Bear Ground Allotment on slope, sandy ground, July 13, 1968, page 96.
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