National Indigenous Diabetes Association | Association nationale autochtone du diabète

Spring 2020 Newsletter

SPRING WILD EDIBLES

HOW TO STORE FRESH FRUIT AND VEGETABLES FOR MONTHS WITHOUT A REFRIGERATOR

FEATURES

NIDA newsletters are distributed on a bi-monthly basis. The next newsletter will be June 21, 2020, with submission deadline of June 12, 2020. We welcome submissions related to all things related to wellness of First Nations, Inuit and Métis Peoples.

Please send submissions to executivedirector@nada.ca

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Message from the Executive Director

Happy Spring!

On behalf of the National Indigenous Diabetes Association Board of Directors and staff, we wish everyone good health and hope you are all doing well through these interesting times.

We didn't receive a lot of submissions for this newsletter as, undertandably, people, communities and organizations all over Turtle Island are focused on the priority of reducing the spread of COVID-19 and helping treat those affected. We extend our thanks and extreme gratitude to frontline healthcare staff, hospital staff, those working at grocery stores keeping things stocked and flowing, transportation drivers and companies keeping food and supplies flowing, people sharing their time and food, harvesters sharing with other communuty members, and countless others who are continuing their work in the face of this pandemic, for the good of all our relations.

What we do have for you in this newsletter is a fantastic special feature on Spring Wild Edibles from the Tend, Gather and Grow Curriculum by Elise Krohn and her colleagues, shared by NIDA Board Director Robynne Edgar. We also have a great article on How to Store Fresh Fruit and Vegetables for Months Without a Refrigerator, shared by Carly Fraser, founder at Live Love Fruit (https://livelovefruit.com/).

We welcome submissions related to all things related to wellness of First Nations, Inuit and Métis Peoples... diabetes and healthy-living, Aboriginal Diabetes Initiative, seasonal recipes, seasonal physical activity, kids' activities, eye care, physical activity, foot care, mental health, food sovereignty, food security, nutrition, research, community and personal success stories with diabetes management and prevention.

We would like to sincerely thank all our contributors for sharing the included articles with our readers!

All my relations,
Jeff LaPlante
Executive Director

BOARD & STAFF

SPRING WILD EDIBLES

In springtime, life surges forth from the depths of winter, and the forest is once again loud with activity as plants and animals spring into action. Indian plum leaves unfurl and give the first bright green color to the forest. Salmonberry sprouts and nettles emerge. People all over Salish country watch for these signs, signaling that it is time to harvest the first plant foods.

In late winter, my family watches for signs of springtime—anticipating the reddish-green nettle shoots emerging from the damp earth, the brilliant emerald shrines of Indian plum leaves, and the blushing-pink salmonberry flowers. As they begin to illuminate the forest, our hunger grows. We greet and gather these energizing foods, bringing them home to prepare and preserve.

Many springtime leaves, buds, and sprouts are nutrient powerhouses packed full of crucial vitamins and minerals that support our body. They wake up our bodies by transitioning us from wintertime, building our stamina, and getting us ready for the new year. They can often be found in abundance in gardens, backyards, fields, neighborhood parks, and local woodlands. Harvesting and incorporating them into our menu attunes us to the lands we live on while simultaneously reducing the amount of fossil fuels utilized to transport supermarket foods from long distances. And best of all, they are free!

Many grocery store vegetables are treated with pesticides and are transported from very long distances. Harvesting spring edible foods reduces the use of fossil fuels, strengthens access to good quality food, and is an opportunity to create memories with your friends and family. In fact, if you wild-harvest greens from a clean area (which should always be a harvesting practice), your exposure to pesticides and other harmful substances are avoided altogether. Eat your springtime edibles; they are waiting for you right outside your door!

–Valerie Segrest, Muckleshoot Tribal Herbalist & Nutritionist

Important Tips for Foragers:

- Make Sure You Have the Right Plant: Some wild greens have look-alike plants – for example, chickweed, dandelion, and wild lettuce. Check with plant experts, books, and reliable online sources to make sure you are not harvesting a non-edible species.
- Harvest from Safe Areas: Avoid harvesting from roadsides, railroad corridors, agricultural areas, or other areas that might be contaminated or sprayed with herbicides or pesticides. Plants can absorb toxins including heavy metals from the soil. These chemicals can make us sick.
- Ask Permission: Acknowledge whose land you are on. Do you have permission to harvest?
- Don't Take Too Much: Other animal species rely on berries for food, so leave enough for them to eat. Also, berries contain seeds that will grow into new plants, so when you leave some, you help ensure future harvests.

- Practice Reciprocity: When we harvest plants, we are receiving a gift. Many people offer a gift in return including taking a moment of mindful gratitude, a song, a prayer, or a special offering. We can give back to the land by cleaning up the area we are harvesting from, removing invasive species, returning unused plant parts to the land, and composting.
- Anticipate Processing Time and How Much You Need: Sometimes the bulk of the work comes when you get home and process the plants. Will you have time? And, how much will you be able to actually use?

Chickweed – *Stellaria media*

Chickweed grows in patches and can reach a little over a foot tall. Tiny white star-like flowers have five petals, but appear to have 10 because each petal is shaped like rabbit ears. The bright green leaves grow in opposite pairs. A single line of hair runs down the length of the stem, resembling a mohawk.

Chickweed is a common weed that will grow in any wet place it can take root, including carefully managed gardens and randomly available city dirt patches. It loves moist rich soil and will take over entire garden beds in early spring. As the sun gets brighter and the days warmer, it dies back in open areas, but continues to thrive in shady moist corners.

Food: Chickweed contains a powerhouse of nutrients. Spinach is the most mineral rich green in grocery stores but chickweed boasts 12 times more calcium, five times more magnesium, 83 times more iron and six times more vitamin C! No wonder chickens and other green foraging animals love this nutritious plant! (Hence the name: *chick*weed.)

Young chickweed has a pleasant, mild flavor. It grows rapidly through March and April. Use scissors to harvest the tender new growth or just trim the top couple of inches off more developed plants. Rinse if necessary. Chickweed will last for several days in the refrigerator when wrapped it in a damp paper towel or placed in a plastic bag. If chickweed has a stringy tough texture, it is too old to be edible.

Add chickweed to salads or blend it into smoothies, pesto, and sauces. Add finely chopped chickweed to eggs, quiche, pasta sauce and lasagna to give them an extra nutrient boost and a splash of bright color. To preserve chickweed, place the tender greens in the blender with a little bit of water, blend well and pour into ice cube trays. Freeze, remove cubes and place them in a freezer bag for later use in smoothies and soups.

Medicine: Chickweed has soothing, cooling, hydrating, and healing properties. It can be mashed and put directly on the skin or infused in olive oil for skin inflammation, wounds, boils, rashes, acne, and to draw out infection. Chickweed is a favorite remedy for drawing splinters out of hard-working hands and for soothing dry, cracked skin.

Chickweed is nutritive and generally helps ease inflammation. It also builds our vitality through increasing absorption of nutrients across our intestines. For medicinal benefit eat 1-2 handfuls of fresh chickweed a day or drink 2-3 cups of tea per day for several months. To make chickweed tea, dry above-ground parts in baskets or paper bags and store in a cool dark place. Use 1 heaping tablespoon per cup of hot water and steep 10-15 minutes.

Cleavers – *Galium* spp.

Cleavers thrives in wet fields, forest floors, gardens, and back alleys. Leaves are pointed and clustered in whorls of 6-8 around square stems. Tiny whitish-green flowers have four petals. Fruits ripen into two-lobed green nutlets that are covered in hooked hairs and become brown when mature. There are about 13 species of *Galium* in the Pacific Northwest, with *Galium aparine* being the most abundant. The species name "aparine" comes from the Greek word for "to seize" because cleavers have reversed, barbed hairs on the leaf margins and stems to help it move toward the sun. If a lattice is not available for climbing, cleavers forms lush mats on the ground. Other *Galium* species including *G. oderatum* and *G. triflorum* are high in compounds called coumarins, which are odorless when fresh but when wilted or dried, release a pleasant vanilla-like fragrance. These are called fragrant bedstraw or sweet woodruff, are shorter growing, and have less barbed hairs.

Food: Cleavers are rich in chlorophyll and minerals including silica but they are covered in hairs that discourage foraging. All grazing animals eat cleavers, but they have to chew it for a long time. Young cleavers can be added to soups, sautés, and other dishes. Older plants become too hairy and fibrous for eating. The seeds do have some caffeine and have roasted and drunk as a substitute for coffee in Europe.

Spring cleavers can be pressed into a vibrant green juice that is similar to wheat grass. You can simply harvest a large handful, mash it up with your hands and squeeze it to get the juice out. In old Europe, farm-workers added cleavers to beer as a spring tonic. It was also dried and steeped in wine to make a beverage called "May wine." You can also make cleavers juice by roughly chopping the herb, blending it with a little water, and straining out the plant debris.

Medicine: Cleavers soothes our internal body movement by cooling inflammation and clearing obstacles that inhibit the smooth flow of lymph, blood, and urine. All species of cleavers contain asperuloside – an anti-inflammatory and mild laxative. Cleavers also contains tannins, which tighten inflamed tissue, and coumarins, which are known to strengthen cardiovascular structure including varicose veins. It can be helpful for clearing persistent colds and reoccurring infections or arthritis where there is a sense of needing to cool and clear heat and debris. Cleavers is particularly therapeutic for chronic swollen glands, especially in back of neck, ears, and head associated with immune deficiency.

Cleavers can be used topically as a poultice to ease minor burns and skin irritations. To make a poultice, gather a handful of spring to early summer cleavers and mash them with your hands until the juice begins to come out and the herb no longer feels sticky. Place it on the skin and secure it with a band-aid or cloth. Cleavers infused oil is used directly on the skin or in salves and creams to support skin health, clear acne, promote lymph flow and reduce swelling.

CAUTION: People who are taking blood thinners or who have diabetes and other diseases where a diuretic is contraindicated should not use cleavers.

Dandelion – *Taraxacum officinale*

Dandelion is a nutritious food and a powerful medicine. This common "weed" thrives in sidewalk cracks, grassy lawns, well-tended gardens, abandoned city lots, and even mountain meadows. It is surprisingly easy to misidentify. Many look-alike plants have similar leaves but dandelion leaves are hairless. They have toothed edges, hence the French name, "dent de lion" (lion's tooth). There is only one flower per stem. Stems are hollow.

What most people think of as a single dandelion flower is actually hundreds of flowers growing together on a single base. These open to the sunlight and close in dark, rainy weather. Each dandelion can produce more than 5,000 seeds per year in the form of "wish balls", easily blown away with the slightest breeze or breath. Individual seeds with parachute-like hairs have been known to travel on the wind as far as five miles!

Dandelion helps to improve soil quality. Roots draw minerals up from deep layers of earth – concentrating them in the whole plant. When the plant dies back, it deposits these minerals on topsoil. Roots also aerate hard-packed soil and create pathways for water to enter. Dandelion flowers are pollinated by over 90 insects.

Food: Dandelion leaves are high in vitamins and minerals, including potassium, calcium, magnesium, iron, and vitamins A, B, and C. Pinch off the young tender leaves from the center of plants. Rinse and keep cool. Add them fresh to salads or try steaming, sautéing, or boiling them. Older leaves become intensely bitter as they are exposed to increasing amounts of sunlight.

Dandelion buds can be eaten like capers when they are still tight little buttons. To remove bitterness, wait until the sepals have unfurled and pinch them off. The buds look like little watermelons and can be eaten fresh, cooked or pickled.

Dandelion flowers are high in Vitamin A and have a sweet, mild flavor. The base of the flowering head and the green sepals are bitter. You can pull the flowers off and use them straight in salads or add them to cooked foods like quiche, pancakes, muffins, and fritters.

Medicine: Dandelion is one of the oldest documented medicinal herbs. The leaves are used as a diuretic, meaning they help our kidneys to excrete excess water. Dandelion root supports our liver and kidneys in getting rid of waste products including dietary toxins, drugs, hormones, and metabolic waste. In the fall, dandelion root is sweeter and is high in a carbohydrate called inulin, which is excellent for gut health and insulin balance. Dandelion flower's high nutrient content makes it a popular addition to facial cleansers and creams. The milky white sap from the plant is used to get rid of warts by dabbing the wart with sap once or twice a day for a couple of weeks.

Evergreen Tree Tips

When the lime-green growth appears on the tips of Douglas fir, spruce, hemlock, and true fir trees, it is a sign that spring is in full swing. New needle growth from many varieties of evergreens can be used for food and medicine. Cedar and juniper do not have needles and are not used in this way.

Food: The young tips of evergreen trees are harvested when they are lime-green and tender. Tree flavors vary but you will pick up bright elements of citrus and pine with earthy undertones. Many have an astringent quality that makes you pucker up. You don't need too many – just a little handful is enough to satisfy. Because these tree tips are packed with vitamin C and electrolytes, some people call them "Nature's Gatorade", but without the sugary downside. Many Northwest Native People have eaten spring tips to ward off thirst and hunger. They have also been used to combat scurvy, colds, coughs, and fatigue.

To harvest evergreen tree tips, pinch off the new growth here and there – making sure not to gather too much in one place. Remember that you are pruning the tree. You can dry them for tea. Tips can be preserved in the fridge for several days.

Making Tree Tip Tea

You can prepare hot tea by taking a handful of evergreen tips per 3-4 cups of boiled water. Cover and let steep about 10 minutes. You can also make sun tea. This brings out the bright aromatics and vitamin C without the tannins. Nothing is as refreshing as a cup of Douglas fir sun tea after a hard day of working outside. Add 2 handfuls of tips in a quart jar, then cover with room temperature water. Place in a warm spot and let sit 3-8 hours. Strain and drink straight or mix with lemon or limejuice and sweetener. You can also put tree tips in your water bottle to make a delicious and energizing flavored water.



Nettles

Stinging nettles are our first edible greens to emerge in early spring. They offer us strength and energy during a generative time. You can find nettles in fields, streambeds, and disturbed areas with rich wet soil from the coast into the mountains. They grow 1-3 meters tall and have opposite deep-green leaves with serrated edges, tiny greenish flowers and square stems. The stalk and underside of leaves are covered with stinging hairs that rise from a gland containing formic acid. Gloves and scissors are usually used to harvest nettles.

Food: Nettles are often called a “superfood” and are one of the highest plant sources of chlorophyll, vitamins, amino acids, and minerals, including calcium, magnesium, and iron. Gather nettles to eat fresh *before* they flower in March-May. Do not gather nettles in agricultural or industrial areas because they may absorb inorganic nitrites and heavy metals. Ways to prepare nettles for food include boiling, steaming, and sautéing them. They only need to be boiled for a few minutes, as the “sting” will evaporate with heat. Nettles will cook down like spinach and can be used in soups, dips, quiches, casseroles, meat pies, egg scrambles, etc.

Nettle season is short, but you can enjoy their benefits throughout the year by preserving them. To can them, follow instructions for spinach. To freeze them, fill a medium-sized colander with the amount of nettle you think you will use for a typical dish. Wash the nettles. Fill the pot with enough water to submerge your plants, bring to a boil, and add nettles. Cook for about 3 minutes. Remove them from the water with a slotted spoon and submerge in a bowl of cold water to stop the cooking process. Remove with the slotted spoon and let them drain a minute before placing in a freezer bag. Start your next batch in the boiling water and repeat. You can quickly freeze many bags of nettle this way. The cooking water makes delicious tea or broth.

Medicine: Nettles can help energize people who are feeling debilitated or generally worn down. They are a tonic to the liver, blood, and kidneys. Nettles balance blood pH and assist our kidneys in filtering waste from the body and removing excess fluid. They can be especially useful for arthritis, gout, eczema, and skin rashes. Many people say that nettles help to ease allergies. For hay fever, drink two cups of nettle tea a day starting early in the spring and continuing into the allergy season. Nettles are also used to stop bleeding. A strong decoction is traditionally used to treat wounds, and to build blood after menstruation, birth, or other blood loss. Nettles are made into a tea and used as a hair rinse to make the hair glossy and stimulate growth.

Tea: To dry nettles, bundle them and hang them upside down in a dark, dry place or place them in a paper bag and rotate them daily until dry. Strip leaves off the stem and store away from sunlight. Use 1 tablespoon of dried leaves per cup of boiled water. Steep 15 minutes to several hours. Drink 1-3 cups a day. You can make a large batch of tea and keep it in the refrigerator for up to 3 days.

Other Uses: Nettles are used as a dye with shades ranging from yellow to deep green. The fiber makes strong cordage and was traditionally used to make cordage including fishing lines and fishnets. People around the world have stung themselves to cure arthritic joints and to stay awake and alert during battle or hunting. Compounds in nettle including histamine, acetylcholine, and formic acid are injected into our skin, activating cellular responses, nerve stimulation, and blood and lymph flow.

Purslane – *Portulaca oleracea*

Purslane is a low-growing succulent that thrives magnificently in disturbed areas, such as gardens, farmlands, or cracks in sidewalks and driveways. To most, purslane is thought to be nothing more than a noxious garden weed. However, it is still readily harvested as an edible and nutritious vegetable in many parts of the world, which is why its species name “oleracea” means “edible” or “vegetable.” Its leaves are thick, and shaped like ovular pads that grow opposite along the thick, red-to-brown stem.

Food: The nutty, slightly salty, tangy-tasting leaves are delicious and very nutritious. They are rich in beta-carotene, minerals, Vitamin C, and essential fatty acids. Purslane has more Omega-3 fatty acids than any other leafy vegetable. It can be eaten fresh, stir-fried, or added to soups.

Sprouts

"Sprouts" is a term used by many tribal communities to describe tender spring shoots – especially from salmonberry (*Rubus spectabilis*) and thimbleberry (*Rubus parviflorus)*. They are called bear candy because bears relish them. The shoots emerge at the base of plants and from old stems. Salmonberry has pink-to-magenta colored flowers with five petals and leaves resembling raspberry. Stems are pinkish-red to green when they are in the sprout phase and then become woody with thorns. Thimbleberry has large, fuzzy leaves with five tips and white five-petaled flowers. Their sprouts are bright green, do not have thorns, and become woody and brown as they mature. Both salmonberry and thimbleberry grow in moist woodlands and along stream sides. They prefer shade but will tolerate sunny spots. They are in the rose family.

Food: Salish elders teach that spouts are an important spring food to wake up our bodies after wintertime. They are loaded with minerals and vitamin C—nutrients we need to enter a new season with strength and vigor. They have a bright tart taste that enlivens our senses. If you have never experienced the sensation of astringent foods in your mouth you may be in for a surprise – brace yourself for something that puckers you up and nips you with the taste of a little lemon zest rounded out by honeyed sweetness. Astringent plants are drying and they tighten inflamed tissue including swollen gums.

Watch closely in spring or you will miss sprouts! They are only available for a few weeks unless you travel to colder regions. As soon as it gets warm, new shoots grow rapidly. During this time, they are tender, juicy, and can easily be pinched off from where they emerge on previous year's stems or from the ground. You will have to carefully navigate through the newly developed thorns of salmonberry as you pick them, but it is well worth it. As sprouts mature, they become hard and fibrous. If you can't easily pinch them off with your fingers, don't bother. Once they are a little too mature, chew them to get the juice but spit out the fiber.

Add sprouts to salads or serve on a vegetable tray with dipping sauce. They are traditionally dipped in eulachon, bear, or seal oil. Raspberry vinaigrette or blue cheese dressing will work well too. Some people enjoy lightly sautéing them in a little butter or olive oil. Or chop them up like celery and add them to soup.

Violet

Violets (*Viola* spp.) are beautiful low-growing plants that thrive in moist shady forests. There are many types in our region, including early spring violet, marsh violet, Canada violet, stream violet, and trailing yellow violet. They have heart or kidney-shaped leaves and five-petaled flowers that can be white, yellow, purple, or pink. Some have a wonderful smell. Try tasting the leaves or getting down on your hands and knees to smell them. It is worth it!

Food: All violet leaves and flowers are edible, including their close relatives, pansies and Johnny jump ups. Eating just a few violet leaves will fulfill your daily requirement for vitamin C! You can eat a handful as a trailside snack or you can add them to salads, soups, or sautés. Violets make a beautiful garnish for cakes and other desserts. You can brush egg white on the flowers, carefully coat them in confectioners' sugar, and bake them in the oven on the lowest temperature to make candied violets. Wild violet leaves contain saponins or soap-like compounds, which can cause digestive upset if eaten in very large quantities. A small handful is a good amount for one person.

Medicine: The leaves of violet soothe irritated tissue and contain salicylic acid, which helps reduce pain and swelling. Violet is traditionally used as a poultice to help heal bruises, swollen injuries, and to relieve congested tissue including tumors and cysts. Violets are also used internally as a tea to soothe inflamed tissue and promote healing.

Tea – Dry violet leaves and flowers in baskets or paper bags. Store in a jar or plastic bag in a cool dark place. Use 1 tablespoon of dried leaf and flower per cup of hot water. Infuse for 10 minutes to several hours, drink 2-3 cups a day. The wilted fragrant flowers can also be made into infused oil or honey.

Violet in History: Violet has been prized throughout history for its scent. It has a flirtatious smell that excites the senses and then disappears without a trace, only to return again with greater strength. Because of this, courtesans of ancient Greece used violet to scent themselves.

Flowers were placed between thin layers of fat, which absorbed the scent and could be used as perfume. Ancient Greeks called violet "heart's ease" and used it to cool anger, bring on sleep, and comfort and strengthen the heart. Because violet gives a sweet odor and vibrant color to liquids, alcohol or vinegar extractions were used to flavor and color foods and beverages.

Wild spinach

Wild spinach *(Chenopodium album)* is also called lamb's quarter, pigweed, goosefoot, wild amaranth. The scientific name translates as goose (*cheno*) foot (*podium*), referring to the triangular, goose-foot shaped leaves. Wild spinach is very common in gardens, on farms, in fields, and in waste places. It usually grows 1-4 feet tall. Leaves are thick, resistant to water, and have a whitish film that you can rub off. Small flowers grow in clusters and are greenish. Seeds are small, black, and abundant. Stems often have a reddish tinge. Edible species of *Chenapodium* are widespread across the world and are often cultivated for food. Strawberry spinach
(C. capitatium) is another common species with triangular to arrow-head shaped leaves and red flowering clusters that resemble strawberries.

Food: Wild spinach leaves can be harvested in spring to early summer. They are best when they are young, but you can harvest tender leaves from the top of the plant later in the season. Wild spinach can be used like spinach in salads, pesto, sautes, and soups. They are a nutrient superstar - containing protein, vitamins A and C; B vitamins thiamine, riboflavin, and niacin; and minerals including iron, calcium, magnesium, phosphorus, and potassium. Wild spinach is easy to harvest. You can pinch leaves off plants or cut them with scissors in the garden or field. Or you can cut the whole plants and process the leaves in the kitchen if you are weeding them out of a garden space. Seeds are harvested through late summer and fall. To harvest, cut entire stem with seeds attached and put them upside down in paper bags. Seeds will fall off with a little shaking and rubbing. Winnow and use in on food, in baking, or grind and use as a nutritious addition to flour.

CAUTION: Like spinach, chard, and wood sorrel, *Chenopodium* contains oxalic acid, which can bind with calcium and form crystals that are damaging to the kidneys. Oxalic acid is broken down by cooking. Eating a small amount raw is fine, but cook it if you are eating larger amounts.

Wood Sorrel

You can identify wood sorrel (*Oxalis stricta)* by its three heart-shaped leaflets that resemble shamrocks. Wild varieties have bright-green leaves with yellow 5-petaled flowers. Many nurseries now sell variegated leaf varieties with different colors of flowers. All are edible.

Food: Tart tasting wood sorrel leaves surprise and delight most people. Children say they taste like Sour Patch Kid candies – you might try calling them "sorrel patch kids." The tartness comes from oxalic acid and other acids. Wood sorrel leaf is a nutritious green that can be added to salads, sauces, and other dishes. They contain more iron than spinach. The flowers are tiny but edible and make a beautiful garnish. Be careful not to ingest too much wood sorrel as eating large quantities of foods with oxalic acid can cause loose bowels. Just a handful will be enough to enliven your senses.

Recipes

Bigleaf Maple Flower Fritters

You can experiment with fritters by adding either dried or fresh herbs. Try savory flavors like rosemary or garlic, or sweet flavors like vanilla and cinnamon. If you are preparing sweet fritters, consider serving them drizzled with a little maple syrup!

20 bigleaf maple flower clusters
½ cup flour
½ teaspoon baking powder
Pinch of salt and herbs or spices of choice
2 eggs beaten
¼ cup milk (cow, rice, almond, or even water if you do not have milk)
¼ cup oil for frying (sunflower, sesame, safflower, and coconut are favorites)

In a bowl, mix flour, salt, and herbs or spices. In another bowl, whisk eggs with milk. Put a medium-sized sauté pan on medium-high heat and add oil. Once the oil is heated, dip maple flower clusters in the egg mixture first, then dust them with the flour mixture, and place them in the pan. Place 4-5 in the pan at a time. When the fritters are golden, flip and let them brown on the other side. Let them drain on paper towels. Serve hot.

Variations – Pancake mix will work fine for this recipe. Blend a batter, dip the flower clusters, and let the excess drip off before you put them in the pan. Gluten-free pancake and biscuit mix can also be used.

Dandelion Bud Pickles

This recipe comes from herbalist Joyce Netishen. They are delicious on salads or straight up!

About 1 ½ cups early spring dandelion buds
1/3 cup sweet onion, finely chopped
2 cloves garlic, minced
Apple cider, brown rice or white wine vinegar
Tamari or soy sauce

Place onions and garlic in the bottom of a 16 oz. mason jar. Fill the jar with dandelion buds, leaving 1-2 inches of clearance on the top. Cover buds with a mixture of ¼ tamari or soy sauce and 3/4 vinegar. (about 10 ounces). Cap and let sit for at least 2 weeks – no refrigeration necessary. Stir every of couple days and ensure all buds are covered with vinegar. Ginger, coriander, cumin, or pickling spice are great additions to this recipe.

Dandelion Drop Biscuits

This recipe is quick, easy, and completely satisfying. You can use wheat-free flour baking mix or gluten-free flour mix with delicious results.

2 cups all-purpose flour (or 1 cup white flour and 1 cup whole wheat flour)
2-½ teaspoons baking powder
½ teaspoon salt
1 teaspoon dried herbs such as rosemary, marjoram, thyme, basil, or chives
5 tablespoons cold unsalted butter, cut into small pieces
1 cup milk
½ cup dandelion flowers – pulled off the base without sepals

Preheat oven to 450°. Mix dry ingredients, then add butter. Work mixture with your hands until the batter is the size of coarse breadcrumbs. Stir in milk, herbs, and dandelion flowers. Do not overwork. Batter should be moist and sticky but not smooth. Use a spoon to form about ¼ cup scoops. Place on cookie sheet 1-2 inches apart. Bake until the bottom is browned and the edges are just starting to brown, about 12 minutes.

Dandelion Flower Fritters

Dandelion flowers are sweet and mild tasting. Pick recently opened flowers and remove the green sepals from the base of the flower. Even wary wild food consumers will be delighted when they taste these crispy poppers.

½ cup flour
½ teaspoon baking powder
Pinch of salt
2 eggs beaten
½ cup milk
2 cups fresh flowers
Sunflower or sesame oil for frying

Mix flour, baking powder, and salt in a bowl. You can add herbs like basil and rosemary to this if you choose. In another bowl, blend eggs and milk. Heat a skillet with about ¼ inch of a high-heat tolerant oil like sunflower or sesame. Dip flowers in egg batter then coat with flour mixture. Fry until golden, then flip to other side. Drain on paper towels. Fine cornmeal can be substituted for flour. If you have small flowers, you can make a batter by mixing all the ingredients together. Mix half batter and half flowers, then sauté in oil to make “flower pancakes.” You can use this recipe to make fiddlehead, blue elderflower, big leaf maple flower, wild onion flower, or fireweed shoot fritters.

Nettle Pesto

Try tossing this with pasta, potatoes, or cooked vegetables. It can also be spread on crackers or fresh vegetables as a snack. Raw chickweed, purslane, wild spinach, wood sorrel, and other wild greens can be added to pesto!

1 small bag (about 6 cups) of young fresh nettles, rinsed
1 bunch basil leaves, stems removed, washed and drained (about 2 cups)
½ cup Parmesan or Romano cheese, grated
1/3 cup walnuts or pine nuts
1/3 cup of extra virgin olive oil
1 clove garlic, chopped
1 teaspoon lemon juice
Salt and pepper to taste

Rinse nettles in a strainer, then boil them in water (blanch) for one minute to remove the sting. Drain well, let cool, and roughly chop. Place all ingredients in a food processor or blender. Blend until smooth. Add salt and pepper to taste. Place the pesto in a clean jar and pour a little extra olive oil over the top. Cover with a lid. This will keep for 1-2 weeks in the refrigerator.

Spring Nettle Soup

This simple soup is a perfect energizing food for springtime. It is easy to make and has a nice, smooth texture when blended.

1 bag of fresh nettles (plastic grocery sized)
3 tablespoons olive oil or butter
2 large onions, diced
2 cloves of garlic, chopped
8-10 cups water or broth
4 potatoes, peeled and diced
2 cups corn
Juice of 1 lemon
Salt and pepper to taste

Wash nettles in a colander, chop with scissors, and set aside. In a large soup pot, sauté onions and garlic until tender. Add corn, potatoes, nettles, and water or broth then bring to a boil and simmer for 15 minutes. Blend all ingredients in a blender or a food processor. Add lemon juice, salt, and pepper to taste. You can add other vegetables like celery, carrots, and squash.

Wild Greens Sauté

You can easily modify this dish to your taste by adding different spices or toppings. Dandelion leaves, chard, and kale also work well if you do not have nettles.

1 small bag of nettles
1 small onion, chopped
2 tablespoons olive oil
2 cloves garlic, chopped
2 tablespoons balsamic vinegar or lemon juice
Salt and pepper to taste
*Optional – ½ cup feta cheese

Gather fresh greens, wash and chop into large pieces. In a medium-sized sauté pan, sauté garlic and onions in olive oil until onions are translucent. Add lemon juice and greens. Sauté until greens are tender. Add salt and pepper, sprinkle with fresh feta and serve.

Spring Greens Salad

This delicious salad is packed with nutrients and bright floral flavors. Blend the dressing ingredients in a blender until smooth and pour over the salad just before serving.

1 cup chopped chickweed greens (substitute lettuce if unavailable)
1 cup candy flower leaves (substitute lettuce if unavailable)
½ cup violet leaf and flower
½ cup wood sorrel leaves
½ cup edible flowers – salmonberry, thimbleberry, strawberry, calendula, or rose

Dressing – Huckleberry or blueberry balsamic vinaigrette
½ cup fresh or frozen and thawed huckleberries or blueberries
¼ cup extra virgin olive oil or walnut oil
2 tablespoons Balsamic vinegar
1 teaspoons honey
Pinch of salt and pepper

Additional Resources

www.wildfoodsandmedicine.com

Discovering Wild Plants: Alaska, Western Canada, and the Northwest by Janice Schofield

Edible Garden Weeds of Canada by Nancy Turner and Adam Szczawinski

Edible Wild Plants: A North American Field Guide by Thomas Elias and Peter Dykeman

Edible Wild Plants: Wild Food From Dirt to Plate by John Kallas

Forager's Harvest and Nature's Garden by Sam Thayer

Pacific Feasts by Jennifer Hahn

Pacific Northwest Foraging by Douglas Deur

Plants of the Pacific Northwest Coast by Jim Pojar and Andy Mackinnon

Photo Credits

All photos by Elise Krohn except nettle soup (istock)

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How to Store Fresh Fruit and Vegetables for Months Without a Refrigerator

Storing fresh fruit and vegetables from the garden is an easy task in the summer months. However, once the cooler months roll around, the abundance of produce is so overwhelming that not even our fridges can keep up.

Utilizing fridges as our main source of food preservation isn't always the best, either. There are several downfalls that come with using a refrigerator to preserve food. For example, the nutritional value of foods will decrease if kept for over several weeks, and if your home experiences a power outage, all of that food could potentially go to waste.

How Did Our Ancestors Preserve Food?

You might have wondered at some point in your life – how did my ancestors preserve a whole winter seasons worth of frost-intolerant produce? While the techniques vary widely across cultures, the main method of food preservation was by utilizing a root cellar, storing large amounts of produce in the cool underground. This allowed them to enjoy the benefits of fresh vegetables throughout the cold winter months and far into spring.

Historical records indicate that the Indigenous peoples of Australia were utilizing the technique of burying food in the ground to preserve it more than 40,000 years ago. The Incas historically introduced the production of chuños to South America – a way of preserving potatoes by exposing a frost-resistant potato variety to the very low night temperatures of the Andean Altiplano, freezing them, and then exposing them to intense sunlight during the day (1). By the 17th century, walk-in root cellars started to become popular in England.

With the variety of food preservation techniques around the world, it is clear that root cellars served an amazing purpose. Imagine storing a whole harvest's worth of your food in an area that required almost no energy to power? Sounds pretty great to me.

What Is A Root Cellar?

A root cellar is basically an underground room for preserving fruit and vegetables for several weeks to months at a time. Many homes have them built in the basement, but they can also be structures separate from the home. When properly built, root cellars are cool in temperature, have the correct humidity levels and are well-ventilated.

While many cannot just get up and build their own old-world root cellars, a little common sense and wisdom of temperature and humidity guidelines will allow anybody to whip together an ideal plan for prolonging produce shelf-life throughout winter.

Keeping the rules of root cellars in mind, we should pay attention to temperature, humidity and air circulation.

1. Temperature

Cooler temperatures help to preserve produce by slowing the rate at which they release ethylene gas, thereby slowing the rate at which they go bad. While the ideal temperature of a root cellar varies depending on what fruit and vegetables you will be storing, it should be between 32 and 50 degrees Fahrenheit.

2. Humidity

Humidity levels will also depend on how fresh your produce stays. Most produce stores best in an environment where the relative humidity is high – between 85-95 percent. Most root cellars are naturally humid, as they are constructed of the earth, but it is still a good idea to include a hygrometer (a device that measures humidity) in your root cellar. If the root cellar is too dry, you can increase humidity by sprinkling water on the floor, or by packing vegetables in damp sawdust. If humidity levels are too high, you can increase ventilation or add barrels of rock salt.

3. Air Circulation

Proper ventilation will allow for greater temperature control, as well as controlling the number of ethylene gases produced by the fruit and vegetables being stored. If these gases have no way of escaping, your entire root cellar will quickly rot. There should be at least two vents, one high and one low. Warm stale air needs to

float out of the top of your chamber, as fresh cooler air makes its way through the bottom.

4. Darkness

Light accelerates the decomposition of fruit and vegetables. Storage in complete darkness is the best way to preserve the shelf-life of produce.

Many people have devised make-shift root cellars if they don't have the resources to make an "official" root cellar that comes with some homes. The videos below describe just how to do so.

Types of Root Cellars

1. Trash Can Cellar

This homemade, inexpensive version of a makeshift root cellar is an easy way to store root crops. Potatoes, carrots, kohlrabi, beets, rutabagas, turnips, and parsnips are perfect for this type of storage. This cellar is made using a metal trash can and dug underground so that the mouth of the can lays flat with the top of the earth.

2. Barrel Root Cellar

A barrel root cellar is basically the same as a trash can cellar, except using a very large plastic barrel.

3. Straw Storage

Straw storage might be the easiest for most people. You put layers of straw followed by layers of potatoes (or other root veggies) in a large basket or wooden barrel. You can store this in a dark, cool area of the home, and they should last months.

How To Store Fruit and Vegetables Without a Fridge

If you're wanting to extend the life of your fruit and vegetables, utilize the following tips. As a rule of thumb, do **not wash any produce prior to storing**. Washing them will reduce their ability to keep throughout the months. Instead, provide enough drying time for the dirt on the outside to dehydrate, and then brush off any large clumps.

When stored properly, all of the vegetables below can last a very long time. Most people think that only root vegetables like carrots, beets, potatoes, and onions can last several months, when in fact, **tomatoes, cucumbers, and cauliflower can last just as long if properly stored**.

Here's how to store your fruit and vegetables long-term:

1. Apples
This fruit can be dangerous to store with other produce, because as they age, they release ethylene gas, which causes other produce to rot, too. Isolate apples in shallow containers with lids. They keep best in 80-90% relative humidity and prefer temperatures of around 32-40 degrees Fahrenheit. Check them often, and if you see any signs of rot, remove the bad apples immediately.

2. Beets
Beets can withstand more humidity than apples, but they prefer the 32-40 degree Fahrenheit range. Before hard frost hits, hoe dirt over the protruding shoulders, keeping the foliage exposed. As winter begins, add mulch to the rows with up to a foot of leaves, straw or hay (more for colder climates, less for warmer). This method can also be applied to carrots, parsnips, turnips, celery, rutabagas, cabbages, leeks, kale and with some success, spinach. The longer you keep cold-tolerant produce in the ground, the better. Cool fall and winter temperatures actually increase the sugar content in many vegetables like beets and carrots (thus, making them taste ten times better!).

3. Brussels Sprouts
This vegetable is very frost-hardy and can be left in the garden until late fall. They can be kept in a root cellar, but a lack of moisture will shorten their life span. Keep brussels sprouts at a temperature of 32-40 degrees Fahrenheit and a high relative humidity level of 90-95%.

4. Cabbage
Can withstand light frost when it is young, and moderately severe frost when mature. You can utilize the same method of mulching beets with cabbage. They prefer cooler temperatures of 32-40 degrees Fahrenheit, and high moisture levels of around 80-95% relative humidity. You can pull out the entire plant (roots included), and this will ensure the cabbage lasts a little bit longer. If a stump of cabbage is left in the ground for the following year, however, a smaller leafy cabbage will emerge the following season. If you decide to pull out the cabbage with roots included, you can store them by tying a sturdy string to the roots (like hemp cord) and then let them hang upside down in the cellar.

5. Carrots
As described above, carrots can be kept in the garden under mulch, much like beets. They prefer temperatures of 32-40 degrees Fahrenheit, and relative humidity of 90-95% in a root cellar. If you are storing in a cellar, harvest before the soil freezes and cut the stems close to the carrot. Store them in a bucket of leaves or sawdust with a loose lid.

6. Cauliflower
Prefer cool temperatures of 32-40 degrees Fahrenheit and very moist relative humidity levels of 90-95%. You can wrap cauliflower in leaves to extend their shelf-life.

7. Celery
Prefer cool temperatures of 32-40 degrees Fahrenheit and very moist relative humidity levels of 90-95%. They don't tend to last too long into the winter months,

8. Celeriac
This vegetable, which is actually the root base of celery itself, is one of the best keeping vegetables during the winter months. Trim off the longer roots, making sure

not to cut too close to the bulb. Store in damp sawdust, sand, or moss, at an ideal temperature range of 32-40 degrees Fahrenheit. They prefer a very moist relative humidity of 90-95%.

9. Garlic
This spice needs to be air-dried in a warm, arid area for 2-3 weeks before storage. Remove the root and store at 32-50 degrees Fahrenheit with 60-70% relative humidity and good airflow.

10. Leeks
Try to grow frost-hardy varieties if you're wanting to keep for the winter months. They can withstand a bit of snow, and the mulching process (as described above with beets) may be used up until the ground freezes. Harvest with some roots still attached, and store upright at 32-40 degrees Fahrenheit, preferable in wet sand. Try not to wet the leaves during storage. They prefer relatively high humidity of 90-95%.

11. Onions
Require curing until the necks are tight before storing. To cure, spread them in a dry area with lots of airflow, or hang them upside down. They prefer temperatures of 32-40 degrees Fahrenheit, with a relative humidity of 60-70%. Make sure to store them in breathable containers like mesh bags or crates.

12. Parsnips
Store well in uncovered ground until a solid freeze, at which point they should be mulched. The frost improves their flavour for a delicious spring harvest. If you harvest during winter, store them in damp sawdust at 32-40 degrees Fahrenheit, and a high relative humidity of 90-95%.

13. Potatoes
Potatoes should be cured in a dark place for 1-2 weeks at 45-50 degrees Fahrenheit. After this, they prefer cold temperatures of 32-40 degrees Fahrenheit, and moist relative humidity of 80-90%. You can also store potatoes outdoors by piling an insulating material like straw or hay on top of unused winter garden space with a few inches of dirt on top. Keep a ventilation hole, clear of dirt, on one side of the pile and a drainage ditch around the perimeter equipped with a small runoff canal. Throughout the winter, you can reach through the ventilation hole and fish out the produce. If you have a tarp, you can cover the top of the pile (not the ventilation hole) to prevent the storage mound from eroding away. If you have lots of potatoes that need storing, and more than one pile is not an option, layer the pile with 4-6 inches of the insulating medium, followed by a single layer of potatoes, followed by 4 inches of soil. Repeat the layering process.

14. Pumpkins
Cure pumpkins as you would a winter squash (see below) with the stem attached and stored around 50-55 degrees Fahrenheit. Relative humidity should be around 60-75%.

15. Sweet Potatoes
These guys can be stored all the way till spring if properly cured and stored. To cure, let them air-dry in a warm humid environment of 80-85 degrees Fahrenheit and 90% relative humidity for 10-14 days. This will toughen the skin and improve its flavor. Sweet potatoes store best in an unheated room of 50-60 degrees, with a moderate relative humidity of 60-70%, taking great care not to let them drop below 50 degrees Fahrenheit.

16. Turnips
This root veggie should always be harvested before a heavy frost hits. Remove the tops, and store as you would carrots in a moist insulator such as sawdust, moss or sand.

17. Winter Squash
Should be harvested before a hard frost, when the skin is tough enough to prevent penetration from a pressed thumb. Allow the seeds to fully develop before consuming them. Leave the stem on the fruit and cure for 10 days at 75-85 degrees Fahrenheit. Store them in a moderately dry and warm spot, where the temperature doesn't drop below 50 and preferably stays below 60 degrees. The best relative humidity for storage falls between 60-70%.

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