Farm to School Month – Week Three: Leaves of Alaska

What Are the Various Types of Leaves You Eat?
Plants we grow to eat the leaves love growing in Alaska. There are too many to mention here so I tried to just hit a sample from a category you may have eaten! Here are a few to try. . .

- Basil
- Bok Choi
- Broccoli
- Brussels sprouts
- Cauliflower
- Celery
- Chard
- Chickweed
- Cilantro
- Collard greens
- Dandelions
- Endive
- Fennel
- Kale
- Mizuna
- Nasturtium
- Parsley
- Spinach
- Thyme
- Watercress

There are more ways to eat a vegetable than you realize. Many of the vegetables you eat regularly have leaves and stems that are completely edible -- parts of the vegetable you have probably been throwing away. Add these leaves to your vegetable dish for flavor or garnish, as well as the health benefits you will get from eating them.

- **Beans** Many of the beans you regularly eat by themselves or in soups, salads and chili have leaves that are completely edible. When growing your own lima beans, snap beans or green beans, pick a few of the leaves during harvest time and add them to your vegetable dishes. The vegetable leaves may be eaten when cooked or fresh, with cooked leaves being the preferred method for taste.

- **Broccoli, Carrots, Cauliflower** When you buy a head of cauliflower at the supermarket, you may notice that it comes with leaves attached to it. These dark green leaves are edible and may be cooked alongside your cauliflower dish. Other vegetables in your garden that you most likely eat
regularly include broccoli and carrots. If you often steam these three vegetables for a side dish at mealtimes, include a few of their dark leaves for added vitamins, protein and fiber.

- **Eggplant, Pumpkin, Squash** When harvesting your eggplant, pumpkin and squash in the fall, pay close attention to the leaves on these vegetables. These leaves are edible and may be eaten cooked or fresh, or used as a garnish. Add them to casseroles, soups, salads and other dishes for some added protein.

- **Lesser-Known Vegetables** Some of the lesser-known vegetables also have leaves that are edible. These include radishes, kohlrabi, beets and turnips. If you have these vegetables in your garden or purchase them from a supermarket with the leaves still intact, use the leaves in your side or main dishes.

- **Young Leaves** Young leaves generally provide the most flavor for your soups, salads and other vegetable dishes. Pick young leaves one-by-one and cook them according to your preference. The young leaves of certain vegetables are the only tasty ones, such as from white onions, Southern peas and squash. Other leaves from these vegetables are edible but will not taste very good.

**Shopper’s Tips**
You have found yourself ready to pick up delicious Alaska Grown and outside Alaska grown leaves for you and your family at the store/market/garden. Here are some ideas to keep in mind to find the right bunch:

- Make sure they are very fresh with no slimy parts.
- Look for vibrant dark leaves that are crisp and full.
- Do not waste your money on wilted or yellowed leaves.
- Younger, more tender leaves from all greens are typically a little sweeter than more mature, robust leaves.
- Kale and collards are also hardier greens, and they are often fresher in the store, and refrigerate better.
- After buying your greens, keep them refrigerated in a plastic bag (unless already packaged).
- If they aren’t in a plastic bag, they will dehydrate quickly and become limp.

**Food Safety to Keep in Mind**
Leafy greens are typically low risk when it comes to food safety standards. Often, they are sold prewashed, packaged, and ready to eat at the store, but keeping these few steps in mind will help make sure they are ready for your plate:

- First and foremost, make sure to wash your hands with warm water and soap for at least 20 seconds before you handle your greens, even prior to harvesting can help reduce the number of bacteria your produce is exposed to.
- When picking out and preparing your greens discard any brown or damaged areas of the leaves to ensure your greens are of the best quality.
- It is best to use cold running water to wash your leafy greens before eating them. Be sure to adequately dry any remaining portions before storing to keep them from harboring bacteria and keep them fresh.
• Be aware of possible cross contamination when working with raw meat while preparing your leafy greens. Once contaminated with juice from raw meat it can be difficult to properly clean your leaves again.

**Fiddlehead Ferns:**
When harvesting, and preparing Fiddlehead Ferns it is also important to keep these rules in mind.
• Be sure to only harvest ferns that are still tightly coiled and have not begun to fan out.
• Always cut the stock just below the coil and do not pull the roots up to harvest.
• Removed any browned chaff of the fern before preparing.

**How Do You Store Leaves to Eat?**
Leaves can be eaten steamed, sautéed, roasted (kale chips), grilled, stewed, boiled, or most commonly raw. Once you get them home from the store/market/garden, what do you do next?
• When you are ready to use your greens, give them a good wash! Get them submerged in a sinkful of cool water.
• Separate the leaves, and agitate a little with your hands to remove any soil and debris, and any bugs! Kale especially can house little critters, so get a good wash through those leaves.
• Then shake off the water until mostly dry, then you’re ready to use them.
• If not using right away, whisk away as much moisture as possible, then refrigerate.
• For hardier greens like kale and collards, lightly wrap in a clean tea towel and then pop in a ziploc bag, leaving it open. This helps keep the leaves from drying out but also not getting wilted from excess moisture.
• If you want to freeze greens like kale and collards for smoothies, you can do so. Remove the leaves from the stems, tear in pieces, and store in ziploc bags to freeze.

**Reasons to Eat Leaves**
• Dark green leafy vegetables are calorie for calorie, probably the most concentrated source of nutrition of any food group.
• They are packed with vitamins, minerals like iron and calcium, antioxidants, fiber, phytonutrients and chlorophyll.
• A one-cup (250-mL) raw serving of any of the leafy greens has at least your daily requirement of vitamin K, with kale providing more than six times your needs, dandelion greens five times and Swiss chard about three and a half times.
• Mustard greens and kale help lower cholesterol. Here’s how: The liver uses cholesterol to make bile acids, which aid in fat digestion. When bile acid binds with the fiber of these greens, it gets excreted from the body—which means the liver has to use up more cholesterol to make new bile acid and therefore cholesterol levels are reduced. According to a U.S. study in *Nutrition Research*, steamed mustard greens and kale do this to a greater extent than raw.
• The slightly bitter taste of many leafy greens is a good sign: It reflects their high levels of calcium. It’s unlikely you’d be able to eat enough greens in one day to get the 1,000 mg of calcium recommended daily for women ages 31-50, but they can help you get there: A ½-cup
A serving of dandelion greens contains 78 mg calcium; mustard greens have 55 mg; Swiss chard has 54 mg; and kale has 49 mg.

- Kale and mustard greens are part of the nutrient-rich Brassica family, which also includes broccoli and cabbage. A study in the *Journal of the American Dietetic Association* in 2011 linked a higher intake of these vegetables with a decreased risk of cancer in the ascending section of the colon. In Canada, one in 15 women and one in 14 men are expected to develop colorectal cancer.

**How Do You Prepare Leaves?**

If leaves are cooked for food, they may be referred to as **boiled greens**. Leaf vegetables may be stir-fried, stewed, steamed, or consumed raw. Leaf vegetables stewed with pork are a traditional dish in soul food and southern U.S. cuisine. They are also commonly eaten in a variety of South Asian dishes such as saag. Leafy greens can be used to wrap other ingredients into an edible package similar to how a tortilla is used. Many green leafy vegetables, such as lettuce or spinach, can also be eaten raw, for example in sandwiches or salads. A green smoothie enables large quantities of raw leafy greens to be consumed by blending the leaves with fruit and water.

Here are some more ideas to get more leaves into your diet:

- Sneak them into a smoothie.
- Stack onto sandwiches.
- Wrap them up.
- Put them into a meat pie.
- Toss them into pasta.
- Put them in potato salad.
- Use as a wrap.
- Bake into chips.
- Pack them into a pesto.
- Bring them to breakfast.
- Pile it on a pizza.
- Stir them into soup.
- Tuck them into tacos.
- Mix them into stir-fry.
- Stuff them into potatoes.
- Put them into a bowl: like yummy one-bowl meals instead of a sandwich or wrap.

**How Much Do I Need?**

According to the USDA 2015-2020 Dietary Guidelines, a serving of cooked leaves is ½ cup and a serving of raw leaves is 1 cup. The best way to think about portion sizes of leaves we eat is to fill ¼ to ½ of your plate with vegetables that includes dark green, red and orange, legumes, and starchy food groups.

**Recommended Daily Amounts of Fruits and Vegetables**

<table>
<thead>
<tr>
<th></th>
<th>Kids, Ages 5-12</th>
<th>Teens and Adults, Ages 13 and up</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Males</strong></td>
<td>2½ - 5 cups per day</td>
<td>4½ - 6½ cups per day</td>
</tr>
<tr>
<td><strong>Females</strong></td>
<td>2½ - 5 cups per day</td>
<td>3½ - 5 cups per day</td>
</tr>
</tbody>
</table>
A Slice of Leaf History

- Nearly one thousand species of plants with edible leaves are known. Leaf vegetables most often come from short-lived herbaceous plants such as lettuce and spinach.
- Woody plants whose leaves can be eaten as leaf vegetables include *Adansonia*, *Aralia*, *Moringa*, *Morus*, *Sesbania*, and *Toona* species.
- Leaf vegetables contain many typical plant nutrients, but since they are photosynthetic tissues, their vitamin K levels are particularly notable.
- Swiss chard isn’t native to Switzerland—it originally grew near the Mediterranean. It was named by a Swiss botanist in a clever bit of branding.
- Dishes containing spinach are known as “Florentine” because Florence native (and later Queen of France) Catherine de’ Medici famously enjoyed munching the healthy leaves.

Just the Facts

- Spinach is not as loaded with iron as you might think. A German scientist misplaced a decimal point in his research on spinach’s iron content in 1870, and it took 70 years or so for anyone to notice the mistake.
- The world over, one vegetable continually tops the lists of “most hated”: Brussels sprouts.
- Cabbage is the veggie that has the most nutritional bang for your buck. Cabbage is a nutritional-powerhouse, cruciferous vegetable rich in antioxidants and anti-inflammatory compounds.
- California produces almost all the broccoli sold in the United States.
- Swiss chard is very low in calories (19 calories per 100 g fresh, raw leaves) and fat, and is recommended in cholesterol-controlling and weight reduction programs.
- Broccoli and cauliflower are vegetables, but they are also actually flowers.
• Kale tastes sweeter after it is frozen or exposed to frost.
• Spinach is believed to be of Persian origin and was introduced into Europe in the 15th century though it was not commonly eaten in the US until the early 19th century.
• The nutritional value of vegetables decreases during the cooking process.
• Soluble vitamins are lost through the absorption of liquid - for example, when boiling.
• The nutritional value of vegetables decreases during the cooking process.
• Celery is a fantastic vegetable for athletes as it quickly replaces lost nutrients and sodium. Just three celery stalks will provide one of your five a day recommended portions of fruits and vegetables.
• Basil was used in the embalming process in ancient Egypt.
• Don’t let bok choy’s celery-like appearance fool you, it’s actually a member of the cabbage family.
• Watercress has more than 15 essential vitamins and minerals, its health-giving properties have been known since ancient times. It is believed that Around 400 BC Hippocrates, the father of medicine, located his first hospital beside a stream so that he could grow an abundance of watercress to help treat his patients.
• Beet greens have also been cultivated since prehistoric times. In fact, early Romans only ate the beet tops and left the beet roots for medicinal purposes.
• Leafy green vegetables supply you with plenty of fiber: collards and spinach have 5 to 7 g of fiber per cup.
• Most dark leafy green vegetables have 20-25 calories per serving. With all the fiber and a serving being one cup, they are a great snack between meals to keep you healthy and feeling full.