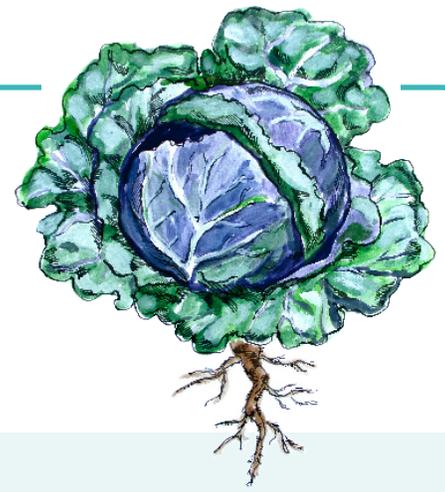


Brassicas



Did You Know

- “Brassica” is a genus, or group of closely related plants in the mustard family. There are 3700+ species of Brassicaceae, or the Brassica plant family, ranging from cauliflower to kohlrabi. There are several subcategories of Brassicas known as “cole crops” or cruciferous vegetables. Several of these vegetables were derived from the same ancestor, wild mustard or *Brassica oleracea*. This includes: broccoli, cabbage, cauliflower, collards, Brussels sprouts, and others. See the illustration below.
- Brassicas are diverse and depending on the variety, we eat different parts of the plant: roots, stems, leaves, flowers, and seeds.
- Many of the Brassicas that we enjoy as food today either originated in northwest Europe or the Mediterranean but over the past 2,000 years, Brassicas were most likely domesticated in the Mediterranean region. The ancient Greeks recorded medicinal and culinary uses of Brassicas.
- Cabbage, a popular Brassica grown in Montana, has roughly 400 varieties. Although they all share certain structural features and properties, cabbage varieties vary greatly in shape, size, and color. Look for purple, green, and white cabbages!

Gardening

Brassicas are a perfect addition to any Montana garden! They enjoy cooler weather and can be planted as early as April in Montana. Cabbages take 50 to 100 days to mature. The right timing and temperature are imperative for healthy, flavorful, and beautiful Brassicas. Here are some special considerations when planting Brassicas:

- Because some Brassicas can be susceptible to pests, it is important to cover cabbages, broccoli, and cauliflower with row covers.
- Be sure to pick a sunny spot when planting, as Brassicas need at least 5 hours of sun daily but prefer full sun.
- All Brassicas grow best in firm, fertile, free-draining soil, so be sure to amend your garden with compost when growing these diverse crops.
- Rotating Brassica crops with other crops will help avoid a buildup of pests or diseases particular to one plant family. It will also help balance the nutrients being used, as Brassicas require nutrient-dense soil to grow well.

Selection

When selecting Brassicas, it is important to make sure the vegetable is dense and firm. Avoid Brassicas that are limp, discolored, or bruised.

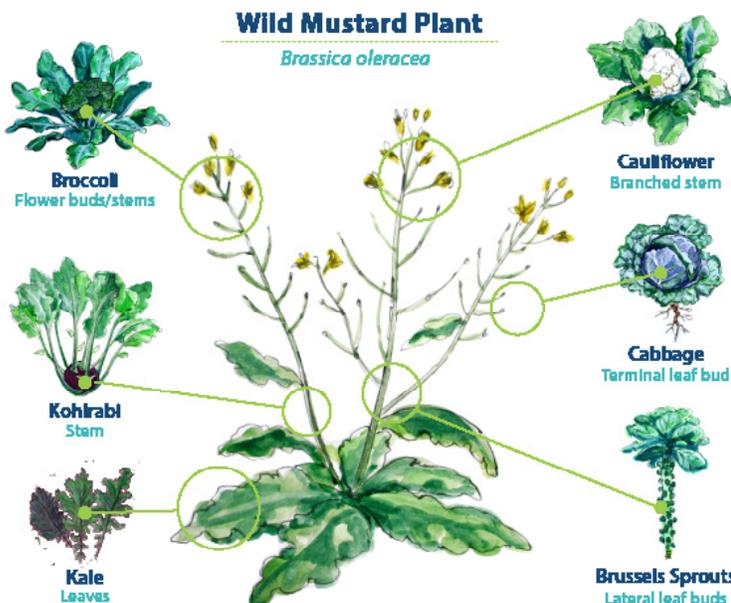
Cooking

Fresh. Many Brassicas are delicious served raw. Broccoli, cauliflower, and cabbage are tasty options that require little preparation. Shredding those Brassicas create a dynamic component to any salad.

Frozen. Brassicas can be stored frozen for up to 1 year after being blanched. To blanch Brassicas, briefly boil the prepared vegetables until the leaves are slightly soft and then dunk in ice water.

Steamed. Steaming can be a great solution for some Brassicas, including collards, cauliflower, and broccoli. Boil about an inch of water in a pot then add the trimmed and cleaned vegetable in a steamer basket over the boiling water. Cover and steam until tender to bite, about 3-5 minutes.

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Gingered Cabbage Salad

HACCP Process: 1 – No Cook 2 – Cook & Same Day Serve 3 – Cook, Cool, Reheat, Serve 4 – SOP Controlled

Ingredients	25 Servings	50 Servings	Directions
Red cabbage, <i>shredded</i>	2 1/2 lbs	5 lbs	<ol style="list-style-type: none"> Cut cabbage into wedges and remove the core. Shred in a food processor and set shredded cabbage aside in a bowl. Core and peel apples. Cut into wedges, then thinly slice wedges. Toss with lemon juice in a bowl to prevent browning. Whisk oil, vinegar, ginger, honey, mustard, garlic, salt, and pepper until well combined. Add apples and lemon juice to the cabbage. Drizzle with dressing and toss to coat. Add cranberries and toss again. Sprinkle with sunflower seeds. Cover and let stand for 15 minutes before serving. If preparing more than 30 minutes before service, refrigerate.
Green cabbage, <i>shredded</i>	1 1/4 lbs	2 1/2 lbs	
Apples, <i>thinly sliced</i>	3 1/3 cups	6 2/3 cups	
Lemon juice	3 Tbsp	1/3 cup	
Olive oil	1/3 cup	1/2 cup	
Cider vinegar	1/3 cup	1/2 cup	
Fresh ginger, <i>peeled, minced</i>	2 tsp	1 Tbsp	
Honey	2 tsp	1 Tbsp	
Dijon mustard	2 tsp	1 Tbsp	
Garlic, <i>minced</i>	1 tsp	2 tsp	
Dried cranberries	1 1/4 cups	2 1/2 cups	
Sunflower seeds	3/4 cup	1 1/4 cups	

Serving Size: 1 cup | **Yield:** 25 or 50 servings

Oven Temperature & Baking Time	Temperature	Minutes
Conventional		
Convection		
Pan Size		

Nutrition Analysis

Calories (kcal)	89
Protein (g)	1.6
Carbohydrate (g)	13.2
Total Fat (g)	4.11
Saturated Fat (g)	.56
Calories from Total Fat (%)	41.73
Vitamin A (IU)	537
Vitamin C (mg)	35
Iron (mg)	.69
Calcium (mg)	34
Sodium (mg)	43
Dietary Fiber (g)	2.6

Meal Component Fulfillment *(Based on Serving Size)*

1 Serving Provides:

7/8 cup other vegetable + 1/8 cup fruit

Notes

Source: Vermont FEED New School Cuisine Cookbook
[\(https://vtfeed.org/resources/new-school-cuisine-nutritious-and-seasonal-recipes-school-cooks-school-cooks/\)](https://vtfeed.org/resources/new-school-cuisine-nutritious-and-seasonal-recipes-school-cooks-school-cooks/)

Winter Vegetable Soup with Noodles

HACCP Process: _____ 1 – No Cook 2 – Cook & Same Day Serve _____ 3 – Cook, Cool, Reheat, Serve _____ 4 – SOP Controlled

Ingredients	25 Servings	50 Servings	Directions
Kale, collard greens, or Swiss chard	2 lbs	4 lbs	<ol style="list-style-type: none"> 1. Remove tough ribs from the greens. Cut into 1/2 inch pieces. 2. Trim and peel carrots and onions. Cut into 1/2 inch dice. 3. Heat oil in a large stockpot over medium heat. Add onion, garlic, and half of the salt. Cook, stir occasionally, until browned for 10-15 minutes. 4. Add carrots, squash, and turnips. 5. Reduce heat to medium-low and cook, stirring occasionally, until tender for 10-15 minutes. 6. Meanwhile, bring water to a boil in a large pot. Cook pasta until tender, about 10 minutes. Drain and set aside. 7. Rinse lentils. Bring 1 quart of water, lentils, and 1/4 of the salt to a boil in a large saucepan. Reduce heat to a simmer and cook until tender, about 30 minutes. Drain and set aside. 8. When the vegetables are tender, add the rest of the water, the rest of the salt, chicken base, and pepper to the pot. Bring to a simmer and cook for 20 minutes. 9. Add the greens and cook until just tender, about 5 minutes. Add the drained lentils. 10. To serve, add the cooked noodles right to individual serving bowls and ladle soup over top, or stir cooked noodles into the pot of soup.
Carrots	4 1/4 lbs	8 1/2 lbs	
Onions	3 cups	6 cups	
Vegetable oil	1/2 Tbsp	1 Tbsp 1 tsp	
Garlic, <i>chopped</i>	1/4 cup	1/2 cup	
Butternut squash, <i>peeled, seeded, diced into 1/2 in pieces</i>	2 cups	4 cups	
Turnips, <i>peeled and diced in 1/2 in pieces</i>	1 cup	2 cups	
Water	3 gal	5 3/4 gal	
Egg noodles, <i>whole-grain</i>	1 lb	2 lbs	
Green lentils, <i>dry/uncooked</i>	1 cup	2 cups	
Chicken boullion	2 1/2 Tbsp	5 Tbsp	
Black pepper, <i>ground</i>	1 tsp	2 tsp	
Salt, <i>Kosher</i>	1 Tbsp	2 Tbsp	

Serving Size: 2 3/4 cups + 1/3 cup noodles | **Yield:** 25 or 50 servings

Oven Temperature & Baking Time	Temperature	Minutes
Conventional		
Convection		
Pan Size		

Nutrition Analysis

Calories (kcal)	210
Protein (g)	5.9
Carbohydrate (g)	33.8
Total Fat (g)	3.2
Saturated Fat (g)	.3
Calories from Total Fat (%)	14.05
Vitamin A (IU)	17713
Vitamin C (mg)	53.7
Iron (mg)	2.1
Calcium (mg)	103.3
Sodium (mg)	562.7
Dietary Fiber (g)	5.5

Meal Component Fulfillment *(Based on Serving Size)*

1 Serving Provides:

.75 oz grain equivalent; 7/8 cup vegetable - 1/4 cup additional veg, 1/8 cup dark green, 3/8 cup red/orange, 1/8 cup other

Notes

Source: Vermont FEED New School Cuisine Cookbook

(<https://vtfeed.org/resources/new-school-cuisine-nutritious-and-seasonal-recipes-school-cooks-school-cooks>)

Brassica

Plant Part Commonly Eaten

Selection

Storage

							
Bok Choy	Broccoli	Brussels Sprouts	Cabbage	Cauliflower	Collards	Kohlrabi	Turnips
Leaves	Flower bud	Axillary buds	Leaf bud	Stem, cauliflower heads are fleshy, branched ends of stems.	Leaves	Stem, the "bulb" is an enlarged stem, is typically what is eaten, although the entire plant is edible.	The root is typically what is eaten, but the top greens can also be eaten.
When buying bok choy, look for compact, firm, fresh ribs with no brown spots. It is fine if leaves are slightly wilted, especially if they are being cooked.	Choose broccoli that is firm and evenly colored. Broccoli with flowers or wilted buds should be avoided because it's neither fresh nor tender.	Buy Brussels sprouts that are compact and firm. They should be bright green without any yellowing leaves.	Select a cabbage that is heavy and compact. It should have crisp, well-colored, and shiny leaves that are free from bruises and cracks.	When buying cauliflower, be sure to find one with a firm and compact head. Determine freshness by how bright green the outer leaves look.	Choose collards with brightly colored, firm, relatively small leaves that are unblemished.	Look for kohlrabi that is smooth and unblemished, and if there are leaves, make sure they are firm and bright green. Smaller specimens tend to be less fibrous, so keep in mind your preference when selecting kohlrabi.	When buying turnips, the smaller the better because it means they are sweet and have the best texture. They should be firm and heavy for their size, and free from any nicks or cuts.
Bok choy will only keep in the fridge for a couple days so to ensure freshness, wash it at the last minute. When storing, put it in a perforated bag in the vegetable drawer of the refrigerator.	Broccoli is very perishable, so store it in the vegetable drawer for up to 5 days if fresh. Blanched and frozen, broccoli can be kept in the freezer for up to one year.	Brussels sprouts will keep for 3-4 days unwashed in a perforated bag in the vegetable drawer of the fridge. Blanched and frozen, Brussels sprouts can be kept in the freezer for up to one year.	Cabbage will keep for about 2 weeks in the vegetable drawer or in a perforated bag in the fridge. Store it away from other foods, because over time the odor from cabbage can become more noticeable. Blanched and frozen, cabbage can be kept in the freezer for up to one year. It can also be dried.	Unwashed, cauliflower can be kept in a perforated bag in the fridge for up to 10 days. Cooked, cauliflower will only keep for 2-3 days in the fridge. Blanched and frozen, cauliflower can be kept in the freezer for up to one year.	Store unwashed collards in the fridge wrapped in a damp paper towel and a perforated bag. They will keep for several days but are tastier when fresh. Blanched and frozen, collards can be kept in the freezer for up to one year.	If stored in a perforated bag, kohlrabi will keep for up to a week in the refrigerator. The leaves should be stored separately from the bulb, because they only keep for a day or two. When frozen, kohlrabi's texture changes so freezing is not the best storage method.	Tightly wrapped in the refrigerator, turnips will last up to 2 weeks. Peel them and trim the tops right before cooking to preserve freshness.

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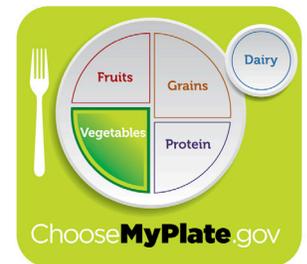
Roasted. Roasting Brassicas is a delicious option to add flavor and accentuate the texture of the vegetables. Kale, Brussels sprouts, and turnips are delicious when tossed with oil and seasoning then roasted in the oven. Kale can be roasted or dehydrated to make tasty kale chips!

Fermented. Making sauerkraut is an excellent way to enjoy a bounty of cabbage throughout the year! Visit https://store.msuxextension.org/Products/Canning-Pickles-and-Sauerkraut__MT200902HR.aspx to learn how to ferment this Brassica.

Preserved. For information on preserving Brassicas, look for Extension MontGuides on Home Canning Pressures and Processing Time. Visit <https://nutrition.msuxextension.org/> and click on the food preservation link or contact your Extension Office.

Nutrition Information

Although the Brassica genus is extremely diverse, most Brassicas are excellent sources of vitamin C and good sources of potassium, vitamin A, and vitamin B6. Vitamin A is important because it helps maintain good vision and keeps skin healthy. All Brassicas are rich in phytochemicals, meaning they are antioxidant-dense and have anticarcinogenic and anti-inflammatory properties. Brassicas credit as vegetables for National School Lunch and Breakfast Programs.



4 Montana Harvest of the Month: Brassicas



The Montana Harvest of the Month program showcases Montana grown foods in Montana communities. This program is a collaboration between Montana Farm to School, Office of Public Instruction, Montana Team Nutrition Program, National Center for Appropriate Technology, Montana State University Extension, Gallatin Valley Farm to School, FoodCorps Montana, and Montana Department of Agriculture. More information and resources are available at: mtharvestofthemoth.org.

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