



Fresh from the Garden

ROOT VEGETABLES BEETS

This lesson may be presented as part of an overview of root vegetables, or as a stand-alone beet lesson.

If presenting two or more root vegetables as one lesson, some duplicated demonstrations and "tastings" may be eliminated.

It may be necessary to prepare some recipes in advance and reheat them during the presentation, if possible.

The material is suitable for both beginning gardeners and gardeners with established productive vegetable gardens.

Use the lesson to:

- Teach about the health benefits of beets
- Demonstrate how to properly harvest, store, handle, preserve, and healthfully prepare beets.
- Introduce new and/or unfamiliar vegetables to gardeners in order to encourage gardeners to include more nutrient dense cool weather vegetables in their gardens and their diets.
- Provide more healthful alternatives to traditional cooking techniques or recipes.
- Instruct gardeners how to deal with an overabundant crop.

With minor adaptation, the lesson can be used to introduce the concept of growing vegetables at home to non-gardeners. For example, a container gardening section could be added to demonstrate how to grow beets in a pot or container.

Key presentation points:

1. Nutrition and health benefits associated with vegetables
2. Importance of consuming fruits and vegetables daily.
3. Simple cultivation recommendations
4. Harvesting techniques
5. Washing and storing
6. Healthful cooking/preparation techniques
7. Recipe demonstration (1 or 2)
8. Recipe

Additional (optional) points:

- History or origin
- Cultural information
- Interesting or fun facts

Additional (optional) Activities:

- Compare vegetable name in English with another language appropriate for your audience.
- Taste and compare flavor of different root vegetables
- Sample thinly sliced raw beets with a healthful dip.
- Test audiences' knowledge regarding the difference between a fruit and a vegetable, and into which category selected produce falls.
- Demonstrate how beets may be grown in containers
- Distribute plants or seeds for immediate planting in the garden.

Beet Facts:

- Beets and beet juice have been used throughout history as a dye for clothing, cosmetics, and foods.
- In colonial America, beets were used to color cake frosting and pancakes.
- In Europe, beets are called beetroot, and sometimes called blood turnip.
- Beets are native to Europe, Africa, and the Near East
- Borscht is a Russian soup made with beets.
- Beets come in a variety of colors—white, yellow, and even striped

Preparation:

- Review lesson material
- Review presentation guidelines.
- Review demonstration checklist.
- Review resources for additional presentation information or activities.
- Select seasonal vegetables for demonstration.
- Prepare vegetables for demonstrations, as necessary.
- Prepare recipes or parts of recipes for demonstration and sampling, as necessary.

The following is a suggested script with step-by-step demonstration activities:

PRESENTATION: BEETS

Introduce yourself and review what you will be presenting with the audience. Discuss the recipe(s) that you will demonstrate.

“For good health, it is important to eat a variety of vegetables, including beets and other root vegetables.

Eat vegetables every day--at least 2 ½ cups, but more are better. The more you eat the better chance you have for a healthy life. Scientists have found that people who eat beets and other vegetables, have a lower risk of developing some of the more common cancers.

It's not difficult to figure out why beets are called a root vegetable. The edible part of the plant grows underground and is the plant's root.”

Note: Due to the amount of time required to cook beets (about 35-45 mins.), it may be necessary to cook beets for tasting and use in demonstrated recipes a day ahead of the presentation.

If you plan to demonstrate 2 recipes, select 1 that requires cooking and 1 that is served raw. Start the recipe that requires cooking at the beginning of the presentation to allow adequate cooking time. The 2nd recipe may be prepared at or towards the end of the presentation.

It may be necessary to prepare some recipes in advance and reheat them during the presentation, if possible.

☞ Display fresh beets with leafy tops and tap root intact, if possible. If not, display a photograph.

“Beets are the most colorful of the root vegetables. Before the round, red roots were developed they were grown strictly for their leafy tops.

Stories of how they came by their name are as colorful as the beets themselves. One claim is that the beet was so named because it resembles the second letter of the alphabet --"b." A less appetizing story is that beets reminded early cooks of a bleeding animal when they cut them open, so they named them bête, meaning "beast," which later became beat then beet.

Beets are considered low-maintenance and easy to grow. While they prefer cool weather and moist conditions, beets can also be grown in warmer weather. An advantage to having beets in your garden is that they can be left in the ground and harvested as needed.

Fresh from the garden beets have a distinctive sweet, earthy flavor, and a rich, deep red color that is nothing like slippery, pale, commercially canned beets. However, if you prefer to eat canned beets or frozen (which are rarely seen), go ahead. Frozen and canned vegetables have about the same amount of vitamins as fresh vegetables.”

☞ Display a can of beets

☞ Display a plate of cooked sliced fresh beets

☞ Compare the flavor, color and texture of fresh vs. canned beets

“Beets come in two basic shapes: globe-shaped, and cylindrical. The mild, tender beet greens or leaves are considered a green leafy vegetable.”

☞ Display globe shaped and cylindrical beets. If unavailable, display photographs

☞ Display the beet greens and compare to other leafy greens, such as spinach

☞ Distribute a few beet leaves for tasting raw

“Beets are an excellent source of folate, an essential vitamin that may prevent certain types of birth defects and cancers, and may protect against heart attacks. One average size beet contains ¼ of the daily folate requirement. The deep red color of beets tells us that they also contain the antioxidant vitamin A, which is good for our skin and may prevent cancer. It also is an important vitamin for our eyes and plays a role in preventing a common form of blindness in the elderly called macular degeneration. Dark green and orange vegetables are also good sources of Vitamin A. Eat the leafy tops—beet greens—for calcium, iron, and more vitamins.

Beets have a high sugar content but are still very low in calories. One half cup of boiled, diced beets is only about 30 calories and has as much potassium as a banana.

Harvest beets when the root is from 2 to 4 inches in diameter. Beets may be left in the ground and pulled up as you need them, but very large beets may get woody (tough and fibrous).”

- ☞ Display and compare a small, medium and large sized beet
- ☞ If available, display a very large woody beet

“If beets are clean, store them unwashed with the greens removed, in the refrigerator crisper or in a plastic bag. They will last 2-3 weeks.

Wash beets well before eating raw or cooking. Scrub with a brush and rinse with plenty of water. Be careful not to puncture or tear the skin or some of the color will be lost during cooking.”

- ☞ Demonstrate washing technique

COOKING BEETS:

Cut off all but 2 inches of the tops, and leave the root end attached. Do not peel. Bake, boil, or microwave until tender.

Boil: Cover beets with water and heat to boiling. Cover, reduce heat to a full simmer, and cook for 35 to 45 minutes or until tender. Cooking time depends on the age, size, and amount of beets.

Bake: Wrap 1- 3 beets in a double layer of foil. Place on oven rack; bake at 425°F until tender— about 1 to 1 1/4 hours for medium sized turnips. Peel, if desired.

Roast: Trim and peel beets. Cut large beets in half or in quarters. Toss beets with just enough oil to coat them lightly, and place in a heatproof pan. Roast at 400°F until tender—about 45 minutes to 1 hour. Beets may be roasted unpeeled, and the skins removed after cooking.

Microwave: Cook 5 medium beets in a covered dish with 1/4 cup water for about 10 to 11 minutes. Let stand covered for at least 5 minutes.

“Beets may be boiled, steamed, baked, roasted, microwaved, pickled, or made into a hot or cold soup. They may also be eaten raw. Try grated raw beets in a green salad, or mixed with a variety of vegetables, fruits and dressings.

It isn't necessary to peel small young beets with tender skin, but older beets are best when peeled. Trim and peel beets as you would a potato.

In the past, beets and their juice were used as dyes, so be careful when handling them. They can leave red stains on dishtowels, cutting boards, clothing, and skin. Use a little salt to clean stained fingers.”

- ☞ Demonstrate peeling and grating raw beets
- ☞ Point out how color bleeds and stains
- ☞ Distribute a small portion of raw grated beets for tasting
- ☞ Optional Recipe: Introduce a recipe that uses raw beets
- ☞ Demonstrate Recipe
- ☞ Distribute a small portion for tasting
- ☞ Ask Audience how they like the recipe

“Roasting is an unusual but easy way to prepare fresh beets. The hot oven concentrates their natural sugar and produces a deliciously different version to serve as a side dish or to use in salads. Beets may be roasted peeled or unpeeled.”

- ☞ Demonstrate how to prepare beets for roasting
- ☞ Discuss the difference between roasting and baking instructions
- ☞ Discuss roasting time and temperature
- ☞ Option #1: Distribute a small portion of roasted beets for tasting, or
- ☞ Option #2: Introduce roasted beet salad recipe and demonstrate
- ☞ Distribute a small portion for tasting
- ☞ Ask audience how they like the recipe
- ☞ Option #3: Move to the next section without a demonstration or tasting

“When boiling beets, they bleed less if left whole and unpeeled. Leave the taproot on and about 2 to 3 inches of the stems attached.”

- ☞ Point out tap root
- ☞ Demonstrate how to trim beet tops leaving stems attached

“Do not discard the very nutritious leafy green tops. They also contain folate, vitamins A and C. Prolonged cooking will destroy vitamin C, so cook them quickly in a small amount of butter, oil, or broth and serve, or mix the cooked greens with the cooked roots.

Beet greens are prepared like spinach or any other leafy green. They may be added raw to salads, stir-fried and mixed with cooked beets, or served alone as a separate side dish.”

- ☞ Display greens previously removed from whole beets
- ☞ Optional recipe: sauté trimmed beet tops following the basic recipe at the end of the lesson. If beet greens are the main recipe, other flavoring ingredients may be added to the basic recipe.
- ☞ Distribute a small sample for tasting
- ☞ Display raw beet prepared for cooking

- ☞ Unless you are cooking beets for a recipe demonstration, simulate the cooking process. Use previously cooked beets for the recipe demonstration.

“To cook beets, cover with water, heat to boiling. Reduce the heat to a full simmer, and cook for 35 to 45 minutes or until tender. The cooking time will vary according to size. Larger beets may require an hour or more to become tender.

When cool enough to handle, trim the root and stems and slip off the skin under cold running water.”

- ☞ Display cooked beet
- ☞ Demonstrate how to peel cooked beets
- ☞ Display stained fingers

“To serve, slice, dice or quarter large beets. Small beets may be left whole.”

- ☞ Demonstrate various ways to cut beets
- ☞ Slice some beets for recipe demonstration
- ☞ Display stained cutting board
- ☞ Introduce lemony beets or other recipe
- ☞ Demonstrate recipe
- ☞ Continue presentation while recipe heats through
- ☞ When recipe is finished and before portioning samples, measure a ½ cup serving of beets and place on a small plate
- ☞ Point out the portion size
- ☞ Discuss daily vegetable recommendation (see “Nutrition – the basics” handout, in general 2 ½ to 3 cups per day for adults)
- ☞ Distribute a small portion of the recipe for tasting
- ☞ Ask the audience how they like the recipe

“Don't "undo" all the nutritional benefits of eating beets and other roots by serving them with large amounts of fat and salt. Sauces, dressings, and other ingredients will add calories, fat, and cholesterol.

Leftover beets may be pickled.”

- ☞ Option #1 – pickled beets recipe. Introduce and demonstrate pickled beets recipe
- ☞ Distribute a small sample for tasting
- ☞ Option #2: do not demonstrate pickled beets recipe, but distribute a small portion of previously pickled beets for tasting
- ☞ Ask audience how they like the recipe

☞ Option #3: move to the next section without a demonstration or tasting.

“If mixing beets with other ingredients, do it just before serving so the color doesn't bleed over the other foods.

Although you rarely see frozen beets in the supermarket, young, cooked beets may be frozen.

Beets may be home canned using either a dial or weighted gauge pressure canner. Home canned pickled beets may be processed in a boiling water bath.”

☞ Conclude presentation

“Remember, for good health, it is important to eat a variety of vegetables, including beets and other root vegetables. Be sure to eat the tops as well, since they are even more nutritious than the root.

Eat vegetables every day--at least 2 ½ cups, but more are better. The more you eat the better chance you have for a healthy life. Scientists have found that people who eat beets and other vegetables, have a lower risk of developing some of the more common cancers.

☞ Ask for questions

☞ Thank audience for their participation

Recipes

LEMONY BEETS

2-3 servings.

4 medium beets, cooked and quartered
1 fresh lemon
2 tablespoons butter or margarine (or substitute vegetable spray)
1 tablespoon sugar (or less to taste)
Salt and pepper to taste

Cook, peel, and quarter beets. Grate lemon rind and reserve. Squeeze juice. Melt butter or margarine in a saucepan and add the sugar and lemon juice. Cook over moderate heat about 5 minutes or until slightly syrupy. Add the cooked beets and heat through, stirring constantly.

BASIC SAUTÉED BEET GREENS

3-4 servings

1 –2 large bunches beet greens, stems removed
1 teaspoon olive oil
Salt and pepper to taste

Wash, trim, and chop beet greens. Heat olive oil in pan. Add beet greens and sauté until greens are wilted. Season to taste.

*Flavor with additional ingredients as desired. For example, onion, garlic, chile, citrus, ginger, tomato, herbs, etc.

*If using optional ingredients, add them to the pan after the oil is heated. Cook for a minute or two then add the beet greens and continue with the recipe as printed.

ROASTED BEETS

Trim and peel beets. Cut beets in quarters or smaller. Toss beets with just enough oil to coat them lightly, season as desired. Stirring occasionally, roast at 400°F until tender—about 45 minutes to one hour.

Beets may be roasted with other vegetables such as onions, carrots, turnips, etc.

If desired, toss roasted beets with fresh chopped herbs after removing from the oven.

PICKLED BEETS

4 servings

2 cups cooked beets, sliced
1 small onion, chopped (optional)
1/2 cup water
1/2 cup vinegar
2 tablespoons sugar (or equivalent amount sugar substitute)
Salt and pepper to taste

Mix beet slices with chopped onion. In a small pan, heat vinegar, water and sugar together until the sugar is dissolved. Pour vinegar mixture over beets and cool. Add salt and pepper to taste. Refrigerate. Allow the beets to marinate for 4 to 6 hours before serving.

ROASTED BEET SALAD WITH WALNUTS & CHEESE

4 servings

4 - 6 medium size beets, roasted, cooled and sliced
1 tablespoon oil for roasting (or substitute vegetable spray)
1 small red onion, thinly sliced
1 clove garlic, finely minced

1/2 cup walnut pieces, roasted
1/4 cup crumbled feta or blue cheese
3 tablespoons olive (or other) oil

3 tablespoons vinegar
1/4 teaspoon black pepper, or more to taste
salad greens, if desired

To Roast Beets and Walnuts:

Beets: Trim and peel beets. Cut beets in quarters. Toss beets with just enough oil to coat them lightly, and place in a heatproof pan. Roast at 400°F until tender—about 45 minutes to 1 hour.

Walnuts: 10 to 15 minutes before beets are finished roasting, add walnut pieces to pan.

In a bowl, whisk together oil, vinegar, garlic, and black pepper. Add the onion and roasted beets and toss to cover with the dressing. Add the walnuts and cheese and toss. Serve immediately, or cover and chill until serving time.

**May be served as is or with salad greens.*

**May be made with steamed or boiled beets.*

QUICK GRATED BEETS

4 servings

3-4 medium sized beets, grated
1 tablespoon olive oil
2 tablespoons fresh orange, lime or lemon juice
3 – 6 tablespoons of water or vegetable stock
Salt and pepper to taste
Fresh dill, parsley, cilantro, thyme or tarragon, chopped

Wash, peel, and coarsely grate beets. Heat olive oil over medium low heat. Add beets, and stir to coat well. Sprinkle with juice, cover, and cook for about 10 minutes. Stir occasionally and add water or stock as needed to prevent scorching. Cook until just tender. Season with salt and pepper and sprinkle with fresh herbs.

BEETS WITH MINT AND YOGURT

6-8 servings

2-3 medium sized beets, peeled raw, boiled or roasted
2 cups plain reduced fat yogurt
3 cloves garlic cloves, chopped
1/4 teaspoon cayenne pepper (optional)
small handful fresh mint, finely chopped
salt and black pepper to taste

Coarsely grate beets. Combine the yogurt, salt, garlic, black pepper, and cayenne pepper and stir until smooth and creamy. Stir in the mint and beets.

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