Lesson 5: Storing the Harvest and Composting

Nutrition topic: Storing and freezing produce

Gardening topic: *Compost and Sustainability*

Recommended recipe demo: fresh homemade salsa (or a recipe that focuses on the vegetables being grown in the plot).

Optional Nutrition: FFR, Dairy

Optional: Collaborate with the Home and Community Faculty to provide advanced classes on food preservation techniques, such as dehydration and water bath canning.

Objectives
Participants will be able to:

- *Explain the benefits of properly storing fruits and vegetables.*
- *Describe the blanching method used to freeze fresh fruits and vegetables for long-term storage.*
- *Understand the term “organic matter” and the difference between “brown” (C) and “green” (N) compost materials.*
- *Know the proper ratio between materials for successful composting.*
- *Identify materials that should not be composted.*

Required handouts:

- ***Freezing fresh fruits and vegetables***
- ***Storing Fresh Fruit & Vegetables***

Recommended handouts: Fruit and vegetable handouts based on what the garden is producing.

Storing Fresh Fruits and Vegetables

One benefit of growing your produce or shopping at a farmers’ market is that the available fruits and vegetables are fresher than those at the grocery store. Fresh fruits and vegetables last longer before spoiling. It is still recommended, however, to use most fresh produce within one week of purchase. These steps will ensure you can use it before you lose it while receiving the most nutritional benefits.

- Knowing the proper storage conditions for different fruits and vegetables, as well as which ones tend to go bad more quickly, will help reduce the loss of your harvest.
- Creating a menu plan and shopping list before grocery shopping is always a smart idea.
- When planning to use your produce, prioritize items with shorter storage times, such as leafy greens and berries, before using those that last longer, like cucumbers, squash, and peppers.
- Planning your meals around the produce you have on hand or those you plan to purchase will not only help increase your intake of fruits and vegetables but also reduce food waste.
- Wasting food is like throwing money away.

- The growing season's variability may make it hard to plan what produce to buy. Your planned option may not be available, or a better and more economical alternative may be available.
- It is important to be flexible with your meal planning when shopping during harvest months. Flexibility will allow you to get the best produce for the best price. If you get something unexpected, check the storage info to use it before it spoils.

Freezing Fresh Fruits and Vegetables

Even with good planning, we sometimes end up with more fresh produce than we can use.

- Freezing is a quick, simple, and cost-effective way to save fresh fruits and vegetables until they can be used.

- Freezing does change texture, making fruits and vegetables much softer than their original form. While they may not be ideal for a fresh, crisp summer salad, they are a fantastic addition to soups, casseroles, omelets, fruit crisps, and smoothies, just to name a few.
- Freezing fruits and vegetables allows you to enjoy summer flavors during the long winter.

Freezing fruits and vegetables is simple. Follow these simple steps to freeze most things.
Handout: Freezing Fresh Fruits and Vegetables

- Always choose high-quality, fresh fruit and vegetables. Freeze the produce before it is shriveled and wilted.
- Wash the fruit and vegetables. Cut into the desired size, if necessary.
- Blanch the fruits or vegetables.
  - Briefly boil the produce, then immediately transfer it to a bowl or sink filled with ice water.
  - Blanching deactivates enzymes in fruit or vegetables. This process prevents the loss of color and flavor during storage, resulting in a better-looking and tasting product. It also helps prevent vitamin loss and softens the fruit or vegetable, making them easier to store.
- Pat blanched fruit or vegetables dry with a clean dish towel or paper towel.
- Spread it in a single layer on a baking sheet that will fit in your freezer.
- Once frozen, remove the frozen fruits or vegetables from the baking sheet. Place them in freezer bags or airtight containers. If you do not have a baking sheet, you can freeze fruits or vegetables in a freezer bag. Once the bag is full, lay it flat in your freezer until it is frozen, so it does not freeze in one large chunk.
- Label with name and date. For best results, use within 1 year of freezing.
  - Note: Not all fruits and vegetables require blanching before freezing.

Gardening topic: Compost and Sustainability

Distribute Composting Basics handout

What is compost, and what does it do?

- Compost is partially decomposed organic matter that is created by soil microorganisms breaking down plant tissue through biological processes.

- These microorganisms break down organic matter, releasing nutrients that plants can absorb.
- Organic matter added through compost can also improve soil.
    - Composting can loosen clay soil and improve drainage.
    - Improvement of water and nutrient holding capacity for sandy soils

Types of Compost: Animal-Based vs. Plant-Based

Compost can be made from either animal-based or plant-based materials.

Animal-Based Compost

- Animal-based compost, such as composted chicken, turkey, or other bird manures, is rich in nutrients—especially phosphorus and potassium. These nutrients are essential for plant growth but can build up in the soil if added in excess.
- If your soil already has high levels of phosphorus or potassium, it's best to avoid using this type of compost, as too much of these nutrients can harm plants and the environment.
- Animal manure also tends to have high salt (salinity) levels. If too much is applied, it can "burn" your plants and damage the soil.
    - For more guidance, Utah State University's *Sustainable Manure and Compost Application: Garden and Micro Farm Guidelines* includes a helpful chart showing the average nutrient and salt levels found in different types of manure.

Plant- Based Compost

- Plant-based composts are made from plant materials, such as kitchen scraps, grass clippings, leaves, and other plant materials. Potassium and phosphorus are usually not excessive in these types of composts.

How to apply compost
- Compost can be applied in the spring or fall to the top of the soil. To get nutrients to the root zone, it will need to be turned into the soil.

How to create compost
- There are green materials that contain more nitrogen and brown materials that contain more carbon.
- Materials should be added in a C:N ratio of 30:1 (a lot more brown material than green).
- Materials should be kept wet like a wrung-out sponge and turned as often as possible (once a week is ideal), decomposition slows if not turned often.

Materials to avoid animal products, fats, large twigs and branches, plants that have been treated with herbicides, manures from carnivorous animals (cats and dogs), diseased plants, perennial weeds that can root
https://extension.usu.edu/yardandgarden/research/backyard-composting-in-utah

Recipe Sample

Allow time for participants to taste the sample.
Encourage participants to give their feedback on the recipe, including what they would do differently.

Lesson 5 gardening terms:

- **Organic matter**: items that come from a living organism or a dead organism that was once alive.