# Week 6: Garden's Journey: Harvest, Renew, and Prepare for Next Season

## Objectives

* Equip students with the skills to save seeds from both dry-seeded and wet-seeded plants.
* Teach students effective garden harvesting techniques and post-harvest best practices.
* Introduce the fundamentals and benefits of composting for soil health.
* Highlight the importance of reusing post-harvest plant material for sustainable gardening.

## Handouts

## Outline

### What Farming and Gardening Looks Like

***Handouts and Video***

* [Age-Old Techniques at Hispanic-Owned Sustainable Farm](https://www.youtube.com/watch?v=U5Ye4xe7cvE&ab_channel=VoiceofAmerica)

### Seed Saving: Process and Importance

Saving seeds is an ancient practice, vital for preserving plant diversity and ensuring food security. Through seed saving, gardeners can perpetuate heirloom varieties, adapt plants to local conditions, and foster sustainable gardening practices.

#### Process of Seed Saving

**Dry-Seeded Plants (e.g., beans, lettuce, sunflowers):**

* Allow the seed pods or seed heads to mature and dry on the plant.
* Harvest seeds on a dry day to avoid mold.
* Remove any chaff, pods, or hulls from the seeds.
* Store in a cool, dry place.

**Wet-Seeded Plants (e.g., tomatoes, cucumbers, peppers):**

* Scoop out the seeds along with their surrounding gel.
* Place in a container with a little water and let ferment for a few days (this removes seed-coating enzymes).
* Rinse seeds thoroughly and spread them out to dry on paper or a screen.
* Store in a cool, dry place.

#### Importance of Seed Saving

* **Biodiversity Preservation:** Allows the conservation of diverse plant varieties, especially heirloom varieties not commonly found in commercial markets.
* **Adaptation to Local Conditions:** Plants grown from saved seeds often adapt better to local soil, climate, and conditions.
* **Economic Benefits:** Reduces the need to purchase seeds annually.
* **Cultural Heritage:** Keeps ancestral and cultural plant varieties alive, passing down gardening wisdom through generations.
* **Sustainability:** Encourages a holistic approach to gardening, reducing dependency on commercial seed sources.

In essence, seed saving is not just a gardening technique but also an act of environmental and cultural preservation.

### Harvesting Your Garden

Harvesting a garden involves more than just picking fruits and vegetables. It's a sequence of actions ensuring the health of the garden and maximizing the yield. Follow these steps for a successful harvest and post-harvest activities.

#### Pre-Harvest Preparation

* **Gather Supplies:** Have pruning shears, baskets, gloves, and other necessary tools ready.
* **Know When to Harvest:** Familiarize yourself with how mature produce should look. Size, color, and texture can be indicators.

#### The Harvesting Process

* **Early Morning Harvest:** Harvest in the early morning when the produce has the highest moisture content.
* **Be Gentle:** Handle fruits and vegetables gently to prevent bruising.
* **Root Vegetables:** Loosen soil with a fork before pulling out root vegetables like carrots or potatoes.
* **Leafy Greens:** Harvest outer leaves first, allowing the inner leaves to continue growing.
* **Fruiting Vegetables:** Use shears or scissors to cut fruits from plants to avoid damage.

#### Post-Harvest

* **Cleaning:** Gently rinse produce to remove soil. Consider a post-harvest wash for certain vegetables to remove pathogens.
* **Curing:** Some vegetables, like onions or garlic, benefit from curing – letting them dry in a well-ventilated area for some days to improve storage longevity.
* **Storage:** Store produce based on its type. Some vegetables prefer cold storage (like a refrigerator), while others like tomatoes should never be refrigerated.
* **Check for Pests:** Inspect produce for signs of insects or diseases. Dispose of infected items and avoid composting them.

#### Post-Season Activities

* **Record Keeping:** Note down what you harvested, quantities, and any challenges faced. This helps in planning the next season.
* **Bed Cleanup:** Remove spent plants and compost healthy ones. Dispose of diseased plants.
* **Soil Enrichment:** Consider adding compost or organic matter to rejuvenate the soil.
* **Cover Crops:** Plant cover crops to protect and enrich the soil during off-seasons.

Proper harvesting and post-harvest activities ensure that the fruits of your labor are maximized, both in terms of yield and quality. They also set the stage for a successful garden in the subsequent season.

***Handouts and Video***

* https://youtube.com/shorts/YHKOCot4FCY?si=iOjZjTGs9NtCQLQX

### Compost Piles and How it Works

Composting is a natural process where organic materials decompose into a nutrient-rich substance known as compost. Microorganisms, worms, and fungi break down the materials, converting them into a rich, earthy medium beneficial for plant growth.

#### Key Components of a Compost Pile

* Greens: These are nitrogen-rich materials like vegetable scraps, fresh grass clippings, and coffee grounds.
* Browns: These are carbon-rich materials such as dry leaves, straw, paper, and cardboard.
* Water: Moisture is essential for the microorganisms. The pile should be damp like a wrung-out sponge.
* Oxygen: Turning the compost regularly introduces oxygen, aiding the decomposition process.

#### Steps in Composting

* Layering: Start with coarse materials at the base for good airflow. Alternate between layers of greens and browns.
* Maintaining Moisture: Water occasionally to keep the pile damp.
* Turning: Regularly turn the compost to introduce air, which speeds up decomposition.
* Maturing: Over time, the bottom of the pile will turn dark brown, crumbly, and will have an earthy smell – indicating it's ready for use.

### Importance of Reusing Post-Harvest Plant Material

* Soil Health: Compost improves soil structure, making it more porous and enhancing water retention.
* Nutrient Recycling: Decomposed plant material returns essential nutrients back to the soil, reducing the need for chemical fertilizers.
* Waste Reduction: Composting transforms garden and kitchen waste into valuable compost, reducing the need for landfill disposal.
* Disease Suppression: Well-decomposed compost can suppress certain plant diseases, promoting healthier plant growth.
* Environment: Composting reduces methane emissions from landfills and lowers one's carbon footprint.

Incorporating post-harvest plant material into the compost pile ensures a sustainable gardening cycle, turning potential waste into a valuable resource.

***Handouts and Video***

* [Preparing the Garden for Spring: Our Seasonal Tasks](https://youtu.be/TAjc2-G4JEQ?si=Zp-Byddnghb3b0eb)

## Activity 1: Harvest Hydroponic Lettuce & Microgreen Salad Activity

Engage children in a hands-on activity where they can experience the joy of harvesting and appreciate the results of their hard work. This activity will also teach them about sustainable agriculture, hydroponics, and the value of growing one's own food.

### Materials Needed:

* Pruning shears or small scissors (child-safe)
* Small bowls or baskets for harvested produce
* Salad spinner or colanders
* Small spray bottle with water (for cleaning)
* Plates and forks for tasting
* Optional: Dressing or vinaigrette for salad tasting
* Optional: Plant labels or markers

### Activity Steps:

1. **Introduction & Recap:**
   * Briefly remind the kids about the planting process from weeks 2 and 3.
   * Explain the importance of knowing when plants are ready to be harvested.
2. **Inspecting the Plants:**
   * Allow each child to inspect their mason jar lettuce and microgreen container.
   * Discuss the indicators that they are ready for harvesting:
     + Lettuce leaves should be green, vibrant, and sizable.
     + Microgreens should be around 2-4 inches tall with a couple of leaves.
3. **Hydroponic Lettuce Harvest:**
   * Instruct kids to carefully pick lettuce leaves, starting from the outermost layer. If scissors are used, they should cut the leaves close to the base, but not damaging the central growth point, so the lettuce can continue growing.
   * Gently rinse the lettuce using a spray bottle.
4. **Microgreen Harvest:**
   * Show the kids how to hold the base of the microgreens and use scissors to snip them just above the coco coir soil level.
   * Spray the microgreens lightly to remove any residual coco coir particles.
5. **Preparing the Salad:**
   * Have kids place their harvested lettuce and microgreens into a salad spinner or colander and give them a gentle wash.
   * Spin or shake gently to remove excess water.
   * Arrange the produce on plates.
6. **Tasting Time:**
   * Offer the children some dressing or vinaigrette to add to their salad.
   * Let them enjoy the fruits of their labor and taste their home-grown salad!
7. **Reflection:**
   * Discuss with the kids what they learned from the activity. What did they like most about growing their own food? How did their salad taste compared to store-bought ones?
   * Talk about the importance of sustainable farming practices and how hydroponics and growing microgreens play a role.

By the end of this activity, the kids should have a deeper appreciation for gardening, understanding of plant growth stages, and the satisfaction of consuming what they've grown.

## Activity 2: Sharing Garden Journals Activity

Garden journals are a testament to each student's gardening journey. Sharing them can offer unique insights, experiences, and learning moments.

### Materials Needed:

* Individual garden journals from the students

### Activity Steps:

1. Setting the Scene:
   * Begin with a brief reminder of the purpose and value of garden journals.
2. Structured Sharing:
   * Each student takes a turn to share their journal, focusing on:
     + Major milestones or observations they documented.
     + Any challenges faced and how they overcame them.
     + A memorable moment or a particular entry they'd like to highlight.
3. Feedback & Appreciation:
   * After each student shares, classmates offer words of appreciation or ask clarifying questions.
4. Wrap-Up:
   * Summarize common themes or lessons that emerged from the shared journals.
   * Encourage students to continue documenting their gardening experiences, emphasizing the value of reflection

## Materials

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* Small bowls or baskets for harvested produce
* Salad spinner or colanders
* Small spray bottle with water (for cleaning)
* Plates and forks for tasting
* Optional: Dressing or vinaigrette for salad tasting
* Week 1 through 4 journal activities
* Items planted in weeks 2 and 3.