**Lesson Name:** Harvest Windows

**Main message:**

**Time:** 30 minutes

**Location (classroom/field):** Classroom

**Audience (Level):** Beginning, Intermediate

**Literacy/Numeracy level:**

**Area of learning/Subject:** Crop Planning

**Competencies/Skills/Core Knowledge:**

Categorizing

**Related activities:**

Planning for an Order, Crop planning, bed planting, Days to Maturity, Succession Planting

**Learning objectives**

***By the end of the lesson farmers will…*:**

* become familiar with the concept of harvest windows
* be able to name 3 vegetables that are cut and come again or continuous harvest
* be able to name 3 vegetables that have short harvest windows and 2 that have long harvest windows.

**Assessment evidence**

***Farmers will demonstrate their learning by…*:**

Activity 1: Verbal quiz:

At the end of the activity, ask all the farmers which crops have a long harvest window. Which crops have a short harvest window? Name 3 crops that are cut and come again. Name 3 crops that are one-time harvest.

Activity 2:

Discussion

**Pre-teaching Concepts:**

**ESL words of the Lesson:**

“Harvest windows”

“cut and come again”

**Teaching Tips:**

**Background Notes/Reference Materials/Supporting Documents:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Days to Maturity** | **Harvest Window** | **Type** |
| **Radish** | 28 | 3 days | 1 time harvest |
| **Mustard** | 45 | 2-3 weeks | cut and come again |
| **Cilantro** | 50-55 | 1 week | 1 time harvest |
| **Green Bush Beans** | 50 | 2 weeks | cut and come again |
| **Beets** | 50 | 2-3 weeks | 1 time harvest |
| **Green Onions** | 65 | 2-3 weeks | 1 time harvest |
| **Fennel** | 80 | 2-3 weeks | 1 time harvest |
| **Tomatoes** | 120-140 | 15 weeks | cut and come again |
| **Eggplant** | 130 | 15 weeks | cut and come again |
| **Peppers** | 130-150 | 13 weeks | cut and come again |

**Materials:**

* Large format “Bed” drawn on paper, placed on table
* Small vegetable images that line the bed in rows according to how many rows you plan of each (so the tomato bed would have one row down the middle, the fennel would have 2 and the cilantro would have 3-4) You need 4 times the amount of vegetable images as will be on the bed

**Set-up:**

***Activity 1***

1. Tape images of crops from the spreadsheet above on the board, mixed up in a random order.
2. Write down “Multiple Harvest” and “One time harvest” on two sides of the board

***Activity 2***

Lay the paper bed on the paper and have the vegetable plants available

**Steps:**

***Activity 1:*** Categorizing cut and come again vs. one time harvest crops.

1. Explain that we are going to be talking about harvest length for different crops. This is different from days to maturity, which is how long it takes for a crop to be ready to harvest. This means when it is ready to harvest, how long do you have to harvest it?
2. Some crops you can only harvest one time. Can you name some examples? Others you can harvest multiple times. This can be called “cut and come again.” Which are these?
3. “Looking at these crops on the board, which are one-time harvests and which are cut and come again crops?”
4. Have farmers decide and move crops according to which category they go in.

***Activity 2***

1. Ask a farmer to plant their vegetables in the bed according to how many rows we grow it in (this is extraneous information not specific to this lesson, but added to reinforce that knowledge--you can also leave it out)
2. Tell farmers that their crop is now ready to harvest for the restaurant and it is a Tuesday
3. Have the farmer “Harvest the crops from the bed”
4. **Tomatoes:** when they harvest, replace the tomatoes after they harvest with new tomatoes in the same spot.
5. Have them go through a series of 4 weeks of harvest and keep replacing the tomatoes after each harvest. Ask when the tomatoes will stop giving fruit. Only when it freezes. Ask farmers to count the weeks of the harvest period for the tomatoes. Write down the number. This is the harvest window. Is this long or short?
6. **Beans:** When they harvest, replace the crop up to a few weeks. Ask them how long the harvest window is for beans. 2 weeks and the bean plants are done producing fruit. It is not until the frost. It is cut and come again, but it does not last as long as tomatoes. When they are done producing, you pull them out and either plant more beans, another crop, or cover crop.
7. **Radishes:** When they harvest, don’t replace the vegetable images. The first day, have them harvest ¼ of the bed. Say that it is three days later at the farm, time to harvest for market. There are ¾ of the bed left to harvest.
8. Say it is 1 week later at the farm. Is there anything to harvest? Explain that if the radishes were all planted at one time, if they have waited one week from when they were ready, they are already going to be too big. What is the harvest window for radishes? 3-4 days. This is very short. If you miss this window, you have missed this crop. If you are sick or don’t come, then you lose the profit of one entire bed and your expenses of rent, seed, and labor have been wasted.
9. During this activity, you can discuss what would happen if they took a whole bed of radishes one time to market, or if the restaurant only asked for a small amount each week. Ask farmers what they could do to make sure that they don’t miss the harvest window, or have crops to harvest over a longer period for short harvest window crops--Answer: succession planting. Can then go into a discussion of succession planting.

**Alternatives**

**Reflection *What did farmers learn? How do I know? What did I learn? How will I improve my lesson next time?*:**

**Participant Evaluation**

How much did you like this activity?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** |
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| **Comments:** |  |  |  |  |

Did you feel like you learned something?

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| --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** |
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| **Comments:** |  |  |  |  |

**Accompanying Photos:**