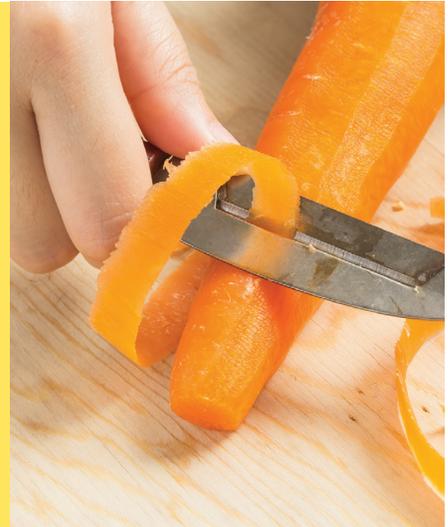


Reducing Food Waste Guidance

There are many useful guides and resources to help you understand more about the issue of food waste (see a brief list of resources at the end of this document). This document is designed specifically for EMFV volunteers to help you think about how to handle the issue of food waste during Extension programs and classes, as well as in your own home.

There are two types of food waste that will be generated during food-related Extension programming. One type is edible. This includes the peel of vegetables like carrots, the stems of kale and collards, or the ends of vegetables, such as onions. The other type is inedible, or hard to re-use. This might include the seeds of an apple, the stem of an eggplant, or a banana peel.



Edible Produce Scraps

One option is to save edible produce scraps to make **vegetable broth**. Here are some steps to making your own vegetable broth:

- Keep a small container in the freezer and throw in vegetable scraps while making dinner or prepping for class.
- If you're doing a cooking demonstration outside, remember that the same food safety rules apply that you would use with any edible food, and you'll want to make sure you keep scraps at a safe temperature.
- It's important to use a mix of scraps to balance the color and flavor of the broth.
- Once you have collected a decent amount of scraps (enough to fill about half of a broth pot) put them into a brothpot and cover with water. Put on the stove, allow to come to a boil, turn down heat and simmer for about 1 hour.
- For extra flavor you can start by cooking some garlic and onions in the broth pot and then adding the scraps and following the process.

Since you generally add these flavors to a recipe when using broth, you can skip this step if you prefer.

- You can also roast the veggies beforehand for extra flavor!
- Some of the best veggies to use are onions, carrots, leeks, celery, mushrooms, tomatoes, or parsnips.
- Some veggies that may not work as well are starchy vegetables like potatoes or turnips, which can give broth a gummy texture and a cloudy color. In addition, beets, zucchini and green beans aren't necessarily the best options. Beets tend to overpower the smell and flavor of the broth. Zucchini and green beans normally become bitter in the simmering.
- Making your own broth not only helps reduce food-waste but also helps you avoid purchasing something you essentially already have on hand, AND allows you to control sodium in your broth.



Inedible Produce Scraps

For inedible produce scraps, or if you don't have the time or resources to make broth, your best bet is **composting**. Composting combines kitchen scraps (produce only) with other materials, such as dry leaves, and organisms such as worms to create soil for gardening. There are a lot of ways to learn more about composting, or to take advantage of existing composting programs.



- Check to see if your Cooperative Extension office composts, and if so, save any inedible or undesirable kitchen scraps to add to the compost pile.
- Consider inviting your local Horticulture agent or an Extension Master Gardener to offer a workshop about composting.
- Look into whether your municipality collects kitchen and/or yard waste for composting.
- Check out NC State's composting portal to learn more about how to compost, including vermicomposting: <https://composting.ces.ncsu.edu>

In addition to vegetable broth and composting, there are many other ways to address and talk about the issue of food waste in the classes that you assist with.

- Encourage class participants about how to use the whole product, whether it's a produce or meat product.
- Explain that there are a lot of fruits and vegetables that don't make it to the supermarket because they don't meet standards that focus on aesthetic appearance, such as shape, size, and color. Encourage class participants to try fruits and vegetables of all shapes and sizes (such as those found at the farmers' market).
—See blogpost: <http://voicesintoaction.org/in-praise-of-ugly-fruits-and-veggies>

- "Planned-overs" (meal planning)
—You will be introduced to the idea of "planned overs" in the Cooking Techniques section of the EMFV curriculum.
- Include resources to help people think about how to preserve any excess food, or to give them the tools to purchase items in bulk during the height of the season and preserve them for later use.
—Canning, dehydration, and freezing are all ways that you can preserve fruits and vegetables for later use.
 - See: <https://foodsafety.ces.ncsu.edu/home-food-preservation>
 - See: <http://voicesintoaction.org/freezing-fruits-and-vegetables-for-plan-overs>
 - Recipe cards are also available that have information about storing fresh fruits and vegetables, as well as tips for using overripe products. These recipe cards are designed specifically for food pantry clients, though they are useful for any audience.

Additional Resources

- Johns Hopkins:
 - <http://www.foodsystemprimer.org/wasted-food>
 - <http://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-a-livable-future/index.html>
- Food Span Learning curriculum:
 - <http://www.foodspanlearning.org>
 - http://www.foodspanlearning.org/_pdf/lesson-plan/unit3/lesson13-wasted-food-lessonplan.pdf
- USDA foodkeeper app: <https://itunes.apple.com/us/app/usda-foodkeeper/id978186100?mt=8>
- EPA food waste resources: <https://www.epa.gov/sustainable-management-food>
- Feeding America: http://www.feedingamerica.org/our-work/our-approach/reduce-food-waste.html?gclid=Cj0KCCQjw7pHLBRDqARIsAFyKPa6on-ivpjDzQE5RMe_hycgzVo5K5G830_xoGmLauz1ZM0VI1jtkDOcaAmIYEALw_wcB?referrer=https://www.google.com
- NRDC food waste resources: <https://www.nrdc.org/issues/food-waste>
- Bay Area Recycling Outreach Coalition: <http://bayarearecycling.org/stop-food-waste>
- Sustainable America resources: <http://ivaluefood.com/resources/cooking-eating>
- The Extraordinary Life and Times of Strawberry I Save The Food I Ad Council: <https://www.youtube.com/watch?v=WREXBUZBrS8>
- John Oliver segment on food waste (hilarious!): <https://www.youtube.com/watch?v=i8xwLWb0ILY>
- Spoiler Alert: <https://www.spoileralert.com>
- Savethefood.com (AD Council): <http://www.savethefood.com> and the accompanying book, *Waste Free Kitchen Handbook*: <http://www.danagunders.com>