

Activity: Propagation Goal: Physical Populations: All

TH Activity Plan – Kitchen Waste: Regrow Avocado Seeds

Text by Lesley Fleming, HTR, Diane Relf, PhD, HTM & Mary Predney

Photo by Pomology



ACTIVITY DESCRIPTION: Participants will propagate avocado seeds using soil-less mixture with the intent of using kitchen waste.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Understand responsibility of caring for plants; learn a propagation method; learn about re-growing food from kitchen waste

Physical: Handle medium sized plant materials without spills demonstrating stable hand movements; cope with trembling

Psychological/Emotional: Discuss concept of using plant/food waste to become a viable plant

Sensory: Integrate tactile task of planting into cognitive understanding

Social: Participate in the group activity following step by step directions

Materials

Seeds from green skinned avocado- 1 per person

Small 4" pot

Soil-less potting mix
Sand

Small dish trays-1 for several people

Scoops or large spoons,
plastic knives
Watering can

Water

Small bowls to wash the seeds in

Clear plastic bags or bottle bottoms-1 per pot

Labels

Markers

Gloves, wipes

STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** Gather seeds making sure not to cut into seed when removing it from avocado. Mix one part sand to two parts soil-less mix. Pre-moisten soil mix & put in small dish trays.
2. Facilitator begins session by demonstrating the technique of planting the avocado seed to propagate a new plant.
3. Participants wash the seed to remove any loose skin.
4. Fill 4" pots with soil-less mix to the rim. Gently tap to settle soil.
5. Place the fat side of the seed into the soil, leaving about ¼" of seed above the soil. Note that the pointy end is the top of the seed. Water the entire pot until water comes out of bottom.
6. Label with participant name, plant name & date.
7. Place clear plastic bag/bottle bottom over the pot. Place in warm spot with indirect sun.
8. Monitor weekly for moisture. When dry, water the entire pot until water comes out of bottom. Be careful to not overwater causing seed rot.
9. After about 4 weeks the stem should emerge & roots form. Once this occurs remove the bag/bottle & place the plant in bright indirect sunlight, required to continue growth.

APPLICATIONS FOR POPULATIONS: Accommodations for all functioning levels of participants can be easily done for TH activity *Kitchen Waste: Regrow Avocado Seeds*. Propagating avocado seeds, large in size, will appeal to most participants who will be familiar with avocados, its large pit and guacamole. Pre-washing and pre-filling pots with soil for people who will be challenged by these tasks can be done by facilitator prior to or during the

session. For participants who are intellectually and physically able, have them cut seed out of avocado, make the soil-less mixture by measuring sand and soil-less mix, moisten soil as mentioned in the pre-session preparations, propagate, and then assist with the weekly monitoring of growth. The latter can also be the responsibility of all participants who have planted the avocado seed, using this as a therapeutic goal – intellectual domain.

Other therapeutic goals can target specific health domains. Physical goals can include practice handling avocado seed, filling pots with soil steadily, then covering with plastic bag, and coping with hand tremors. Sensory inputs of washing and planting the seed in soil can address tactile tolerance challenges, and self-regulation improvements. Discussion of using kitchen waste like avocado seeds for creating a new plant, its potential as food, and upcycling items can be appropriate for most populations. This plant is an excellent example of this concept. Square Mile Farms and Food Revolution Network suggest other plants that can be regrown from kitchen scraps (2020; 2023).

SAFETY CONSIDERATIONS: Populations who may put items in mouth or misuse plastic bags (putting them over face or mouth) should be closely supervised (young children, people living with dementia). Facilitator or volunteer may choose to label plants with permanent marker. Plastic knives are recommended.

NOTES OR OTHER CONSIDERATIONS: The California Avocado Commission identifies 9 types of avocados: Bacon, Fuerte, Gem, Hass, Lamb Hass, Pinkerton, Reed and Zutano (2024). Avocados are a fruit though often questioned - is it a vegetable. Avocados fit all the botanical criteria for fruit but are actually a berry according to the California Avocado Commission (2024). Avocados are considered nutrient dense, and are sodium, sugar and cholesterol-free, and able to increase the absorption of fat-soluble vitamins A, D, K and E. Nicknamed Alligator Pear, they are part of the genus *Persea* in the *Lauraceae* family. Growing avocado from its seed to the point of producing fruit can take 10-15 years. Commercial growers are able to produce fruit in 2-3 years using grafting techniques.

This activity can be extended by experimenting with different methods of germination using avocado seeds. Refer to THAD Science Experiment: *Avocado 3 Ways*.

REFERENCES/ RESOURCES:

- California Avocado Commission. (2024). Avocado types and varieties.
<https://californiaavocado.com/avocado101/avocado-varieties/>
- California Avocado Commission. (2024). Avocado nutrition facts.
<https://californiaavocado.com/nutrition/avocado-nutrition-facts/>
- Food Revolution Network. (2023). 12 foods you can regrow from scraps.
<https://foodrevolution.org/blog/reduce-food-waste-regrow-from-scraps/>
- Martens Forney, J. (n.d.). How to plant an avocado seed and grow a tree from a pit. HGTV.
<https://www.hgtv.com/outdoors/flowers-and-plants/vegetables/how-to-grow-an-avocado-tree-guac-n-roll>
- Square Mile Farms. (2020). 10 plants you can regrow from kitchen scraps.
<https://www.squaremilefarms.com/post/10-plants-you-can-regrow-from-kitchen-scraps>

Edits were made for THAD purposes in 2023.

TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2018.