## THAD Therapeutic Horticulture Activity Database

## Activity: Propagation Goal: Psychological Populations: All

# TH Activity Plan – Propagating Herbs by Division

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ACTIVITY DESCRIPTION: Divide large herbs or other plants using sound horticultural techniques propagating these into smaller plants.

### THERAPEUTIC GOALS:

- **Cognitive/Intellectual:** Practice self-regulation when using sharp tools including adherence to safety rules
- **Physical:** Improve self-esteem & confidence by completing task requiring physical strength & stamina
- **Psychological/Emotional:** Improve employment opportunities & skills learning horticulture propagation techniques

Sensory: Increase exposure to outdoors & sunlight; enjoy sensory inputs of touching, smelling & seeing plants & outdoors

Social: Work in a team, creating new plants through division/propagation & completing assigned task

#### Materials

potting soil 4" pots 2 flats/trays for holding 4" pots plant tags & markers gloves, trowels, shovels garden knife watering hose with fine sprinkler nozzle/water clumps of herbs/plants to be divided

#### **STEP-BY-STEP PROCESS:**

- 1. **Pre-session prep:** Digging up clumps of plants for propagation by division can be done ahead of, or as part of the activity. Set up work area with tools, soil, gloves & water.
- 2. Demonstrate the task of dividing herbs or plants, discussing horticulture technique, desired size of new plant, as well as safety practices when using sharp tools.
- 3. Participants work at their own pace, pulling root mass apart by hand, or with knife or trowel.
- 4. Participants fill each 4" pot with soil (which should be pre-moistened), make a hole with finger, placing the smaller divided plants in the pot. Add soil to the top, gently compressing to eliminate air pockets. Water.
- 5. Pot should be labeled (plant & participant name if desired).
- 6. Place 4" pots into flat or tray, placing in sun & watering thoroughly.
- 7. Clean up work area, gathering excess soil into container for future use.

**APPLICATIONS FOR POPULATIONS:** This activity is appropriate for most populations. If division requires sharp tools (knives or sharp trowel) consideration should be given to safety issues for populations of incarcerated, young children, people living with dementia, or people with intellectual disabilities. This activity lends itself to expanding & learning new skills that can fall into several health domains including intellectual, social, physical, sensory, psychological & cognitive as well as vocational skill development. The latter can be tied to improving employability in horticulture jobs which can promote sense of optimism and sense of direction, self-esteem for completing the assigned task. These are relatable to people of all ages & abilities (students, adults, hard to employ, people recovering from addictions or injury).

**SAFETY CONSIDERATIONS:** Sharp tools may pose a safety risk for some populations. Options include using hands only & not sharp tools. If used with close supervision, this may provide opportunities for individuals to practice self-regulation, avoiding unsafe behavior & using tools appropriately in the horticulture setting. Some participants may be sensitive to potting medium, vermiculite or dust. Pre-determination of this should be undertaken prior to session & use of gloves & long-sleeved shirts will reduce contact. Sun protection should be used if activity is occurring outdoors.

**NOTES OR OTHER CONSIDERATIONS:** Sensory elements of the propagating by division activity can offer tactile, olfactory & visual engagement. If undertaken outside, opportunities to enjoy outdoors, increase melatonin production via exposure to sunlight can be an important health intervention, particularly for people who have limited access to outdoors (incarcerated or seniors). Linking pleasant tasks to outdoor experiences can create positive pre-employment experiences for those who may pursue horticulture jobs. Digging up clumps of plants for the session can provide physical outlet, increased physical exercise & strength building. The therapeutic goal of practicing self-regulation, a common issue within corrections populations, can be addressed other than using sharp tools with focus on modulating time management & energy, working cooperatively with other group members & responding appropriately to challenges (hard soil, hard to divide clumps, having to wait for tools).

As for plants, herbs & plants that are propagated by division include chives, dill, tarragon (roots, stems & leaves), oregano & mint (roots & leaves), basil, parsley & coriander. Ornamental plants that can be propagated by division include chrysanthemum, aster, and some houseplants- aloe, asparagus fern, spider plant & orchids by offsets.

### **REFERENCES/ RESOURCES:**

Steil, A. (2022). How to propagate houseplants by division and offsets. *Iowa State University* Extension and Outreach Horticulture and Home Pest News. https://hortnews.extension.iastate.edu/howpropagate-houseplants-division-and-offsets

University of Florida. (n.d.). Division propagation. PropG.

https://propg.ifas.ufl.edu/08-layering/04-layering-division.html

University of Florida, University of Kentucky & Texas A&M University. (2023). PropG (digital) web glossary designed by textbook authors Hartmann & Kester's Plant Propagation: Principles and Practices. https://propg.ifas.ufl.edu/about.html

Edits were made for THAD purposes in 2023.

HT Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner 2012, revised in 2023.



