

Activity: Plant Care Goal: Cognitive Populations: All

## TH Activity Plan – Watering Cell Packs

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

Photo by D. Relf, Johnny's Selected Seeds



### Materials

Cell packs with seedlings that need watering

Watering cans, wands



**ACTIVITY DESCRIPTION:** Participants will practice watering cell packs. This could be part of a vocational horticulture program.

### THERAPEUTIC GOALS:

**Cognitive/Intellectual:** Master horticulture skill of watering cell packs; acquire new skills & knowledge

**Physical:** Work in greenhouse conditions with high humidity, gravel floors, waist-high tables

**Psychological/Emotional:** Gain understanding of plant needs & importance of caring for plants

**Sensory:** Acclimation to water, soil & greenhouse conditions; managing & coping with water spills, insects/pests challenges

**Social:** Practice relational functioning in classroom/educational setting

### STEP-BY-STEP PROCESS:

1. **Pre-Session Preparations:** Set-up work area; greenhouse, worktables indoors or outside.
2. Facilitator begins session by discussing methods of watering cell packs, these used in plant production, nurseries, greenhouses & other settings, including watering from top, watering from the bottom up, drip irrigation, sprinklers on timers & wand watering.
3. Discuss appropriate method of cell pack watering in the setting where the activity will occur (greenhouse, outdoor tables, tabletop programming, classroom), with a demonstration covering method, safety, cleanliness & clean-up protocols.
4. Discuss how to determine effectiveness of watering – soil color changes from lighter to darker when moist, need to water more than once, type of soil mixture impacting water retention & need for multiple or frequent waterings.
5. Review best practices for watering, water run-off, keeping work area safe from excess water on floors or tables etc.
6. Water cell packs, checking they have appropriate moisture before putting them back in the location identified by facilitator for completed packs. If there will be water run-off, saucers or other containment of water may be required.

**APPLICATIONS FOR POPULATIONS:** Appropriate for most populations. The discussion of watering methods effective for cell packs (and plants) may have a vocational focus for high school or college students, as well as people with developmental delays, corrections programs, or others re-training for new careers. This would be one component of training—watering—covering methods, container types, plant production settings, and general plant care. Horticulture professionals talk about watering in terms of having the correct moisture level

where healthy growth occurs, with the mantra “fish grow in water; plant roots grow in air” (Calkins, 2021). Nowadays production facilities are incorporating horticulture technology to effectively monitor soil moisture, identify the need for watering related to plant growth cycles. Students and other plant professionals may not have access to these high tech methods. The reliance on visual and tactile cues re plant needs for watering and moisture saturation levels continues to be fundamental knowledge.

Therapeutic horticulture can include vocational certification courses and CEUs where the facilitator teaches the coursework necessary for such certifications. Florida Nursery, Growers, and Landscape Association (FNGLA) for example, offers Certified Landscape Technician (FCLT), Certified Landscape Maintenance Technician (FCLMT) and Certified Horticulture Professional (FCHP) in addition to programs, curriculum and exams. Refer to FNGLA, 2023 reference below. Discussion of nursery/landscape careers, apprenticeships and master gardener volunteer opportunities can extend this activity or be appropriate for follow-up sessions.

**SAFETY CONSIDERATIONS:** Sun protection should be considered when activity occurs outdoors. Potable water should be used. Some greenhouse facilities may have paths and floors that are made from gravel, uneven and challenging for people with mobility/balance challenges, or those using wheelchairs or walkers.

**NOTES OR OTHER CONSIDERATIONS:** Watering cell packs is an integral part of horticulture production, greenhouse management, vocational horticulture training and can be a therapeutic activity appropriate for all populations.

**REFERENCES/ RESOURCES:**

Bayabil, H.K., Tilahun, F.T., Li, Y. & Campoverde, E.V. (2023). Moisture retention and chemical properties of nursery potting substrates. UF\IFAS Extension. <https://edis.ifas.ufl.edu/publication/AE562>

Calkins, B. (2021). Training your team to water properly. *Growers Talks*.

<https://www.growertalks.com/Article/?articleid=25029>

FCHP Manual. (n.d.). Chapter: Plant, soil and water relationships.

<https://www.fn gla.org/resources/PlantSoilWater.pdf>

Florida Nursery, Growers & Landscape Association (FNGLA). (2023). Resources for horticulture teachers.

<https://www.fn gla.org/professional-development/overview/teach-horticulture>

Edits were made for THAD purposes in 2023.

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