THAD Therapeutic Horticulture Activity Database

Activity: Propagation Goal: Sensory Populations: All

TH Activity Plan – Polka Dot Plant Propagation

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ACTIVITY DESCRIPTION: Participants will propagate plants with polka dots.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Research & identify polka dotted plants; investigate why plants have this marking

Physical: Address hand challenges finding accommodations that work for hand dysfunction or amputations; practice fine motor skills

Psychological/Emotional: Create something new; explore renewal using plants as metaphors

Sensory: Increase tolerance for non-preferred tasks & expand willingness to engage in sensory stimulation; practice standing to perform & complete task

Social: Share horticultural information with others; use humor during session; practice nurturing skills

Materials

Polka dot plants used for vegetative cuttings, growing medium, containers, water, scissors/pruners

Gloves, wipes

Optional: rooting hormone, heat source

STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** Gather materials & set up work areas. Begin with a healthy plant from which cuttings will be taken.
2. Facilitator begins session by playing polka music & having some polka dotted plants on table.
3. Propagation steps for vegetative propagation begins with sterilized and clean tools. A review & cleaning of tools can be part of the session.
4. Take a 4" stem cutting just below the node, removing lower leaves. Place into a pot with a growing medium that is sterile and well aerated (e.g. perlite, vermiculite, sand with mixtures of peat).
5. Keep in warm sheltered humid growing environment with indirect light. Transplant after roots appear after a few weeks. Rooting hormone and bottom heat are optional but not necessary.

APPLICATIONS FOR POPULATIONS: Plant propagation is a basic horticultural skill that is appropriate for most populations during TH sessions. It is particularly relevant for vocational-focused programs – for career exploration for youth, and for corrections populations retooling their vocational skills.

Incorporating fun and whimsy into TH sessions can mix things up, particularly when the horticulture topics are knowledge-heavy like propagating techniques. Polka dots can conjure up whimsy while providing a topic for research on why plants have specific attributes. Great names like Hippo Red Polka Dot plant and Freckly Face Plant, are imaginative, which is a topic that can be discussed—horticulturists' selection of crazy names.

As noted in the therapeutic goals box above, any number of goals across all five health domains can be incorporated into a TH session. Psychological goals like creating something new can resonate with most populations, with plant metaphors available for personal exploration and interpretation. Sensory goals working on tasks that are not preferred can demonstrate and prompt participants to try tasks they might otherwise avoid. For populations who may make horticulture a career this will be important. Propagating will be required in greenhouse, nursery and other horticulture settings.

SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts. Note the list of poisonous plants below. Sharp tools will be used in the session.

NOTES OR OTHER CONSIDERATIONS: Plants with polka dots can be a topic for research on why plants have specific attributes. The "polka dot" on plants including the polka dot plant is a genetic trait. Whether they are propagated through seed or cuttings they will retain the polka dots. The dots are caused by anthocyanins (red blue or purple pigments) and are naturally occurring.

The actually named Polka dot plant (*Hypoestes phyullostachya*) has multiple cultivars including 'Carmina', Confetti' series, 'Pink Brocade' with mottled pink spots, 'Pink Dot', 'Purpurina' with purple leaves, and 'Splash' series with pinks, red, rose or white (Mahr, 2025). *Some* polka dot plants have striations vs dots, or both. It is not poisonous. White Splash polka dot plant, *Hypoestes Phyllostachya,* is the most common and best known of the polka dot plants. Other varieties exist like *Hypoestes Aristata*, with ribbon coloring vs dots, the Ribbon Bush, *Hypoestes Forskaokii*. The Freckle Face plant has pink, purple, and green colors (Café Planta, 2025)

Other plants with polka dots include: Begonia Maculata Angelwing Double Dot, Rattlesnake Plant (*Calathea lancifolia*), Ten Commandments (*Maranta leuconeura*), and Bromeliad 'Hallelujah', the latter can have sharp leaves.

Toxic polka dot plants include Spotted Dracaena 'Florida Beauty', Satin Pothos (*Scindapsus pictus*), Japanese Laurel 'Crotonifolia', Silver Squil (*Ledebouria socialis*), Spotted Begonia (*Begonia maculata*)- moderate toxicity, and Common Lungwort (*Pulmonaria officianalis*) only if eaten in large quantities. Consideration for propagating and including these in TH session should be based on the population, their maturity to understand plant toxicity, and what type of horticultural knowledge is being taught.

REFERENCES/ RESOURCES:

Brown, M. (2024). Mollie Brown chooses 10 plants with spotted leaves you simply have to have. *Horticulture Magazine.co.uk.*

Kahn, I. (2024). 213+ polka dot puns to tickle your funny bone. *Punny Pulse.com.*

Thakulla, D., Dunn, B., & Hu, Bizhen. (2021). Soilless growing mediums. *Oklahoma State Extension.*

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Edits were made for THAD purposes in 2025.

TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2024.