

# ***THE ARSENAL***

Augusta University's Undergraduate Research Journal

ISSN 2380-5064 | The Arsenal is published by the Augusta University Libraries | <http://guides.augusta.edu/arsenal>

**Volume 5, Issue 1 (2023)**  
**Special Edition Issue**

## TERRACOTTA POTS AND MANURE COMPOST ENHANCE GROWTH AND SURVIVABILITY OF A RARE PLANT SPECIES, *PEDIOMELUM PIEDMONTANUM* (*FABACEAE*)

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### **Citation**

Smallwood, G., & Bennetts, S. (2023). Terracotta pots and manure compost enhance growth and survivability of a rare plant species, *pediomelum piedmontanum* (*Fabaceae*). *The Arsenal: The Undergraduate Research Journal of Augusta University*, 5(1), 69. <http://doi.org/10.21633/issn.2380.5064/s.2023.05.01.69>



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# Terracotta Pots and Manure Compost Enhance Growth and Survivability of a Rare Plant Species, *Pediomelum Piedmontanum* (Fabaceae)

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## ABSTRACT

*Pediomelum piedmontanum*, “Dixie Mt. Breadroot” is a rare legume species which has only three known populations, a serpentine population in Georgia, and two populations located on phyllite soil in South Carolina. In previous experiments, seedlings from both soil types displayed nutrient deficiency symptoms with high mortality when grown in plastic pots in potting soil. The current experiment was conducted to determine if porous terracotta clay pots and the addition of a manure compost will contribute to greater growth and survivability in a phyllite population. The controls consisted of seedlings grown in plastic pots with only potting soil. The experimental seedlings were grown in one of the following variables: terracotta pots with potting soil; plastic pots enriched with manure compost; terracotta pots enriched manure compost. Each control/variable group consisted of 15 seedlings /5 replicate 8 cm pots grown in a 1200 watt full-spectrum growth room. Survivability was highest in the terracotta pots with potting soil, and the overall biomass was greatest in terracotta pots enriched with compost. The results indicate that this rare and unique species requires a more porous, water-retaining environment with nutrient enrichments.

*Received: 02/15/2023 Accepted: 03/29/2023*

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