

ADAPTING APPROPRIATE VEGETATIVE PROPAGATION TECHNIQUES TO THE SHEA TREE (*VITELLARIA PARADOXA*) IN UGANDA – RU 2011 GRG 04

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INTRODUCTION

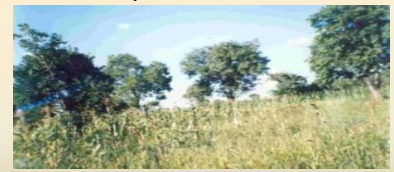
Vitellaria paradoxa (The Shea butter tree) is an indigenous fruit tree species that has the potential to: • improve nutrition, • boost food supply in the "annual hungry season", • foster rural development and support sustainable land use. Hence, adapting appropriate vegetative propagation techniques to the species will not only lead to production of good quality alternative planting stock to replace the harvested and older shea trees but will also lead to improved fruit productivity.



Local Conservation strategies for Shea trees



The Shea trees & coppices protected on fallow lands to provide fruits, oils/butter



METHODOLOGY

Selected saplings are being grafted using splice and top wedge methods & monitored (Fig 1 & 2).



Coppice cuttings of soft and recent branch growth were obtained from healthy individual *V. paradoxa* coppices

RESULTS



- Vermiculite produced a significantly higher number of rooted cuttings (**B**) than other substrates.
- Although pine bark (**A**) supported formation of new shoots considerably, no rooting was observed in cuttings rooted in it.
- The placement of cuttings in pots significantly enhanced their survival rate.
- The two selected grafting techniques that have been tried indicated no significant influence ($P = 0.423$) on the survival percentage of *V. paradoxa* grafts (**Table 1**).

Table 1: The response of *Vitellaria paradoxa* to top wedge and splice grafting techniques

Grafting methods	Count	Sum	Average	Variance		
Top wedge	2	0	0	0		
Splice	2	5	2.5	12.5		
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	6.25	1	6.25	1	0.423	18.513
Within Groups	12.5	2	6.25			
Total	18.75	3				

CONCLUSION

- Placement of cuttings in pots enhanced the survival rate of cuttings when transplanted to 6" by 8" pots.
- More cutting replicates will be carried out to elucidate the effects of different rooting substrates on *V. paradoxa* stem cuttings.
- Further studies focusing on splice and top wedge grafting techniques are being monitored.

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