

The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details

Your name	Oumar Doungous
Project title	Field collection and propagation of <i>Gnetum africanum</i> and <i>G. buchholzianum</i> for the conservation of the wild populations
RSG reference	13706-1
Reporting period	November 2013-november 2014
Amount of grant	£6000
Your email address	oumardoungous@yahoo.fr
Date of this report	30/12/2014

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Determine the effect of type and concentration of growth regulators on rooting of <i>G. africanum</i> and <i>G. buchholzianum</i>)			x	
Evaluate the effect of genotype on rooting of the 2 Eru species (<i>G. africanum</i> and <i>G. buchholzianum</i>)		x		This activity was carried out only on accessions of <i>G. africanum</i> and <i>G. buchholzianum</i> located in the South West region of Cameroon. Accessions collected from other regions are still grown in our site and will be evaluated next year.
Training students and technicians on establishment of plant propagators, collection, treatment and planting of <i>Gnetum</i> cuttings			x	A total of 15 students and technicians were trained

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

Many *Gnetum* plants grown in the forest showed some disease symptoms. These symptoms appeared in apparently healthy cuttings about 1 week after planting. Experiments with cuttings displaying disease symptoms were discarded and repeated.

3. Briefly describe the three most important outcomes of your project.

We obtained information on the propagation potential of the 2 *Gnetum* species. Practically rooting responses of *G. africanum* and *G. buchholzianum* were compared.

The use of auxin on *Gnetum* cuttings has a positive impact on adventitious rooting. Cutting survival was dependent on treatment. The three auxins (indole-3- butyric acid, α -naphthalene acetic acid and indole-3-acetic acid) showed more positive response on rooting as compared to the control. The concentrations giving maximum percentage of rooting, number of roots, root length and weight using each auxin were determined.

The adventitious rooting of *G. africanum* and *G. buchholzianum* was obtained in three distinct phases: induction, initiation and expression. Roots induction was observed after 15 days of culture in most of the treated cuttings.

Harvest period has an effect on adventitious rooting in *G. africanum* and *G. buchholzianum*.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

Part of the forest in the West Region of Cameroon is destroyed for plantation. This affected the habitat of *Gnetum*. We need to go very far to find and collect the two species of *Gnetum*. The local communities assisted us in locating sites of collection of *G. africanum* and *G. buchholzianum*. Some farmers are receiving the plantlets developed from the cuttings for transplanting in their farms or backyards.

5. Are there any plans to continue this work?

Activities of this RSGF are going on and will end in April 2015. We plan to investigate the effect of physiological status and origin of the cutting material on rooting of *G. africanum* and *G. buchholzianum*

6. How do you plan to share the results of your work with others?

Results of my work will be shared during seminars with scientists, forest officials, conservation experts, traders, NGOs and CIGs (Common Initiative Groups) working on this plant and farmers who are interested to take up cultivation. Results of this work will also be shared through publications (thesis, articles in peer-reviewed journals) and participation in national and international conferences.

7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

The RSG was used from November 2013 to November 2014. The funding covered the cost of the first year of activities. The research, however, will continue until April 2015.

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

Item	Budgeted Amount (1 £ = 835 FCFA)	Actual Amount	Difference	Comments
Out-station allowances	1400	1400	0	
Fuel and lubricants	950	950	0	
Extra manpower for greenhouse activities	400	300	100	For the payment of 5 months greenhouse activities
Training	200	200	0	
Data analyses	200	0	200	Data are still under collection
Growth regulators	250	250	0	
Propagators	400	400	0	
Substrate (sand, sawdust, gravel...)	400	400	0	
Computer	450	450	0	

Printer and other computer accessories	350	350	0	
GPS	300	300	0	
Digital camera	150	150	0	
Coolers	150	150	0	
Stationeries	250	250	0	
Communication	150	150	0	
TOTAL	6000	5700	300	

9. Looking ahead, what do you feel are the important next steps?

Establishing pilot nurseries/training centres in villages to showcase the propagation techniques and supply seedlings to farmers and community groups

10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

Not yet.



Fig. 1 : Propagators built with local materials



Fig.2 : Basal single-node leafy cuttings inserted into a rooting bed in the propagator



Fig. 3 : Developed plantlets of *Gnetum*