



Domestication of Allanblackia floribunda in Nigeria
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INTRODUCTION

- **Allanblackia species is generating an increasing interest in Nigeria.**
- **In the next 10-15years, it would become a household name, from the usual forestry tree species to industrial food, soap and cosmetics.**

- The oil obtained from the seeds is edible
- It is valued for production of margarine which has low cholesterol.
- It is also used for the production of soap, cream e.t.c.

- The specie belongs to the family Glusiaceae.
- It is found in East, West, and Central Africa in naturally distributed wet evergreen rainforest.

- In Nigeria, the species thrives well in the Niger-Delta region of Edo, Rivers and Cross River states.
- Its spread in Nigeria as presented in previous reports show that it is found in Ogun, Ebonyi, Ondo, Osun, Imo, Enugu, Anambra, Abia, Ekiti and Lagos States, [FRIN 2005]
- Potential areas include Adamawa, Taraba, Nassarawa and Benue States.

- Allanblackia floribunda as an indigenous tree species which grows wild in Nigeria.
- Concerted efforts are now being made to propagate and domesticate it for purposes of large scale multiplication commensurate with industrial need.
- However, propagation by seeds have encountered a lot of problems, because of its dormancy. It takes between twelve to eighteen months before germination takes place.

OBJECTIVES

- The general objectives of the Allanblackia initiative are:-
- To develop effective domestication and conservation methods.
- To examine the Utilization of the plant in its native range in Nigeria.

- The specific objectives are:
- *To develop appropriate silvicultural practices for Allanblackia domestication.*
- *To undertake periodic survey to update the status of Allanblackia distribution and ethnobotany in Nigeria.*

RESEARCH ON DOMESTICATION ACTIVITIES.

- FRIN In collaboration with Project Novella in 2007 carried out the following activities.

- Visit to selected communities in Edo and Rivers states for negotiations towards the planned domestication programmes.
- Sensitization of the rural communities on the uses of the plant inclusive of its industrial potentials.
- Planned felling programmes of some trees that will provide cuttings for purposes of propagation as well as ensuring setting of marcots on some other standing trees.

- Identification of the required Plus trees of the *Allanblackia* plant.
- To meet above itemised research activities 605 and 836 trees were felled in Edo and Rivers state respectively.
- Felling purposes was to ensure cuttings that will provide seedlings for purposes of rural nurseries establishment.

- 594 marcots were set in Edo state.
- 525 marcots were set in Rivers state.
- Nursery infrastructure such as the Nursery Shed, Non-mist propagators and Humid Chamber have been put in place in Benin in Edo state and Onne in Rivers State.

Opened Non mist propagator



- 30 Marcots set in 2007 at Utekon community in Edo state were harvested.
- 84 Marcots with roots were harvested from 7 trees at Nyowii in Rivers state.
- Harvested Marcots were placed in pots and set in the Humid Chamber in Benin and Onne Stations of FRIN.

- Over 6000 cuttings have been set out in Benin office of FRIN.
- The same is currently on-going at Onne in River state.
- Each propagator has 3 compartments (C1, C2, C3) and each of this compartment was given different treatment of germinating medium. sharp sand only, sawdust only and a mixture of sharp sand and sawdust in the same ratio.

- Misting of cuttings is done on daily basis using knapsack sprayer at intervals of 2hrs on hot days and 4hrs on cool days.
- Water level of each compartment is gauged from time to time.
- Each compartment is also labeled according to the mother tree from which the cuttings planted in it were harvested.

*Nursery workers preparing cuttings for planting
in non-mist propagators in Benin*



Allanblackia floribunda cuttings planted in the
Non mist propagator in Benin



- Of the 30 marcots planted in Edo, 29 have started sprouting and budding over a period of 3 weeks.
- By the 8th week, the buds have become more pronounced with fresh green leaves.

- In a few weeks time, the marcots in Benin are expected to be transferred to a weaning shed before their eventual field planting.
- Over 50% of the potted marcots in Onne River state have also started sprouting.

Eight weeks Marcots inside the Humid Chamber in Benin



- Cuttings started sprouting 2 weeks from planting.
- In the 4th week, sprouting became more conspicuous with new leaves.
- By the 6th week root formation has gradually started to develop.

- A random selection of cuttings in all the propagators showed that the root formation was noticed in the compartments with sawdust only as its germinating medium.
- More are still expected to root from cuttings in other compartments.

*Rooted cuttings of Allanblackia 15 weeks after sowing in
Sawdust medium*



UPDATE SURVEY ON DISTRIBUTION AND ETHNOBOTANY OF ALLANBLACKIA FLORIBUNDA IN NIGERIA

- In line with the presidential mandate on Allanblackia research in Nigeria, FRIN undertook an update survey of Allanblackia floribunda mother trees in Nigeria as a follow up to the 2005 national survey earlier carried out.

- So far 4 states namely Osun, Ogun, Ondo and Ekiti states have been covered in South western Nigeria.

The objective of this survey includes:

- Assessment of the current status of *Allanblackia floribunda* in previously identified localities in Nigeria.
- To identify any other state where the plant thrives but not covered in the first survey exercise.
- To further create awareness to the local people on the usefulness of *Allanblackia* and the need for its conservation.

- To collect germ plasm of *Allanblackia* for silvicultural studies.
- To evaluate the taxonomy of the species and its associated Taxa.

RESULTS.

- The survey showed that the population of Allanblackia in the Area has continued to decline for the following reasons:

- Logging for timber.
- Felling by farmers to reduce competition with their cash **crops** especially cocoa.
- Most farmers regard it as a useless tree.

AB tree felled and sawn into planks



- Its usefulness for medicinal purposes was acknowledged in most communities



- The survey showed that *Allanblackia* fruits in different communities at different time of the year even within same ecological zone.
- Only few wildlings were identified under mother trees.
- The survey showed that many people still confuse *Allanblackia* with *Kigelia africana* (Family *Bignoniaceae*) and *Pentadesma butyracea* (*Glusiaceae*). This is due to the drooping nature of the fruits of both trees.

*Survey team with local farmers at Ikenne in Ogun State
South West Nigeria.*



Work Projections.

- The Marcots that have been secured will be weaned and used to establish a clonal bank within the station.
- This will be a good source of materials for further domestication activities and future studies on the growth behavior of *Allanblackia*.
- Effort will be made to secure more marcots.

- The cuttings set in the propagators will soon be a source of a good number of seedlings that will eventually be planted out within the FRIN station.
- Demonstration plots will be established in some communities in Edo and Rivers States.

- A National Allanblackia workshop will be organized by FRIN.
- All the stakeholders will be invited and the various issues highlighted in the survey report tabled for discussion.
- This is to achieve better awareness by the people and help to encourage the conservation of the tree and promote the commercial value of the tree seed.

- Concrete studies into the Phenology and taxonomy of *Allanblackia floribunda* will be initiated especially with reference to the two definite fruit falls associated with the tree yearly.

- The update survey will be undertaken in other parts of the country.
- This is to determine the present status of *Allanblackia* in those communities earlier listed and possibly identify new ones.

Thank You For
Listening