

16^e Conférence Annuelle du Cajou de l'ACA



REFORCER LE MARKETING DURABLE DES AMANDES ET DES PRODUITS DÉRIVÉS DANS L'INDUSTRIE DU CAJOU AFRICAIN

Sheraton Abuja Hotel, Abuja, Nigeria

12-15 Septembre 2022



Linking Infrastructure, Finance, and Farms to Cashew

Agronomy and cultivation of Cashew Nut

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14 Septembre 2022

Introduction

Agriculture is the key sector providing survival to majority of the African population (Beaujeu et al., 2011; Rueff, 2011). Indeed, it is a critical factor in the West African economy, ensuring 30-50% of GDP for most of the countries and it is the greatest source of income and livelihoods for 70 to 80 % of the population (Toulmin & Gueye, 2003; Tan & Gueye, 2005).

The cashew tree from which the cashew nut is obtained, otherwise called “cashew” which was initially considered as a reforestation tree to combat erosion, has become a cash crop for countries in the West African region. This is as a result of the favourable international environment coupled with incentive prices and the development of competitive trade relations between West Africa and Asia.

Today its cultivation has become an activity of great socio-economic importance for several countries, but many important constraints remain to be overcome to enhance the competitiveness and sustainability of its cultivation (Tandjiékpon, et al., 2008). The probable causes are the high density of plantations, the poor quality of the planting material used, the failure to deploy good agricultural practices of farm maintenance and management. That is the reason why it is important for producers to know and achieve mastery of good agricultural practices to improve the productivity and quality of the cashew nuts.



Determination of plantations in the SeGaBi zone

- Cashew plantations (*Anacardium occidentale L.*) constitute a socio-economic development lever for producers in Senegal, The Gambia and Guinea Bissau. However, since their establishment, little information exists on the situation of the resource. The plantations were established by direct seeding with non-selected seeds. Plantation densities are on average 140 plants/ha. These cashew plantations are not very productive despite their stage of development (15 to 25 years). Yields are estimated on average at 450 kg/ha. This low productivity is due to poor management (unselected seeds, high density, lack of maintenance, absence of fencing and fertilization plan), and this does not favour the rapid emergence of the cashew industry. This is the reason why Shelter For Life is implementing the LIFT-CASHEW programme, financed by the USDA to foster an improved guarantee of the productivity of cashew plantations by acting on technical itineraries, production factors, seed quality, etc. Today, in order to increase the productivity of the plantations, a technical reinforcement of the producers on the technical itineraries and good practices is necessary with the view to improving the quality of the production and the competitiveness of the SeGaBi label on the market of the nuts and its by-products.



Productivity of Cashew Tree Farms

- Before the intervention of the LIFT CASHEW project, studies showed that the productivity of the plantations was low with 5 kg of nuts per tree against 20 in Benin and 70 in Vietnam (PADEC, 2011). These yields are all below the averages estimated by Toussaint (1961) for whom, the average yield of a plantation of 15 to 30 years, should be around 1700 kg. The low productivity would be due to the grazing of animals, the nature of the seeds, the age of the plantations and the high densities. The majority of plantations show irregularities in terms of density due to the practice of direct seeding, maintenance failures, and the maintenance and conservation of other species. Such a situation denotes an unproductive and invasive type of wild plantation that does not allow the association of other crops. The higher the density, the lower the yield. Density conditions the sharing of available resources between the different trees of a plantation and therefore the level of inter-individual competition (Périé et al., 2006; Ngemale, 2009). Today, to improve productivity, the LIFT CASHEW programme has set up demonstration plots to correct the density in order to convince producers through the proof of results linked to the application of good practices. The results obtained showed an improvement in production of 150% compared to the control plot.



Origin of the Seeds

- Before the intervention of the LIFT CASHEW project, studies showed that the seeds used by the producers were of all types. Thus, they came from local markets (13.35%), development and research institutes (16.35%), private individuals (28.24%) and old plantations or self-production (38.92%) and (transmission of seeds from producer to producer). Direct seeding was practiced by 73% of the producers against 27% for transplanting. Today, with the LIFT CASHEW programme, 70% of the producers use seedlings from approved nurseries supported by Shelter.



Technical itinerary for improving productivity and quality of the nut

- Stage 1: Preparing the plantation**

- Flat plot of land, deep and gentle slope
- Clearing of the land
- Marking of plot 10x10m
- Planting



Technical itinerary for improving productivity and quality of the nut

Stage 2: Maintenance of the farm

❖ Pruning

- ✓ Identification of the branch and the part to cut
- ✓ The pruning consists in eliminating the dead and disturbing branches. It is an activation cutting to stimulate production.



❖ Thinning Application

- ✓ Choice of Trees for the thinning application: It means cutting the trees in order to obtain a 10 m space between trees, or a density of 100ft/ha
- ✓ Method of Cutting
- ✓ Dyeing



Technical itinerary for improving productivity and quality of the nut

Stage 3: Pre-harvesting and harvesting operation

- ❖ Putting in place a strip to serve as fire break
- ❖ Cleaning up the land
- ❖ Collection and separation of the nut
- ❖ Sorting & pre-drying



Technical itinerary for improving productivity and quality of the nut

Stage 4: Post-harvest activities

- ❖ Drying
- ❖ Stirring and sorting the nuts
- ❖ Quality test
- ❖ Packaging
- ❖ Storage



Diversifying Cultivation

We also need to develop an intercropping system in the cashew plantations in order to diversify the incomes of the farmers, increase the output of cashew trees. The intercropping would allow bush fires to be reduced, to put to better use the available spaces in the plantation in order to reduce operational costs of clearing and to ensure food security.



Conclusion

The improvement of the productivity of the plantations necessarily can be achieved through the use and adoption of technical itineraries. A technical reinforcement of the producers on good practices, the selection of high-quality and suitable plant material is essential for a mastery and ownership of the technical innovations and technologies. The extension of these good practices through the demonstration plots in the form of participatory training can make this technology accessible, but also diversify production in order to increase income.





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