



Publication date: October 14, 2022

DOI: [10.52270/27132447_2022_12_3](https://doi.org/10.52270/27132447_2022_12_3)

CASHEW NUTS PRODUCTION IN GUINEA-BISSAU

Ensa, Djassi¹

¹Voronezh State Technical University, 84, 20 years of October Street, Guinea-Bissau,
E-mail: ensadjassi22@gmail.com

Abstract

Guinea-Bissau entered the international cashew market even before gaining political independence in 1974. The first export deliveries were confirmed in 1966, when 770 thousand tons were exported. This product has always ranked fourth in terms of export volume, just behind peanuts, coconut and their derivatives, and lumber. In 1970, the country exported 1,200 tons of cashew nuts. The shortage of cashew nuts in the international market, as a result of the sudden drop in production in Mozambique, was one of the factors that encouraged the reintroduction of nuts from Guinea-Bissau into the international market.

Keywords: agriculture, cashew nut, market, country, culture.

I. INTRODUCTION

The cashew plant, called *Anacardium occidentale*, L., was brought from Brazil by the Portuguese, around the sixteenth century and disseminated in all posto administrations, current Sectors, although the best results, in terms of adaptation have been recorded in the coastal regions, especially in the current Regions of Cacheu, Biombo and Oio. About 103,000 hectare is the size of cashew plantations at the national level in 1952. The North Zone is the largest cashew producer in the country, occupying 55% of the entire planted area of cashew. The East Zone represents 27% of the planted area of cashew trees. While the South Zone and the Bijagós Archipelago occupy 18% of the country's entire cashew area.

There are 4 large plantations in different agro-ecological zones of the country: Carlos Capé in the East, São Francisco da Floresta in the South ADPP in the North and Agri-Bissau in the Center. None of the companies use fertilizers or fertilizers. What makes our cashew nut into a bio product.

Using the criterion of red and yellow color, there is the "cashew tree of the earth" and the "cashew tree of Mozambique". Cashew tree of the Earth: it is the most common in most existing plantations in the country; The pulp has a red color, with a medium dimension, is very sweet and has little fiber. The nuts are small, have an average weight between 4 to 5 grams; Its pulp is highly appreciated for the manufacture of juice, wine, brandy; Its trees bear many fruits and have high productivity. Mozambique cashew tree: It is the most recent in the country, with an average of about ten years; Its pulp has yellow color, and is thicker; The nuts are of medium size, weighing between 6 to 8 grams. They demonstrate a very weak productivity and the pulp is less appreciated, because less juicy and more fibrous.



Like all plants, the cashew tree also has enemies that present themselves both in terms of pathogens and insects. As a result of the Vayssié and Camará study, the damage caused by insects is still quite residual. It would be enough to mention that there are 4 major diseases that have interfered quite significantly in the growth and yield of cashew plants. They are: anthracnose, oidium, pestalotiosis and fausse rouille.

II. DISCUSSION AND RESULTS

"Analysis of Monetary Accounts and Balance of Payments (1986-1994)" Bxo, October, 1991. It seems unbelievable that almost \$10 million dollars would have been allocated, in credit form, in a period of only 4 years. For what kind of results? In 1992, according to the data of the Register, it was estimated that about 300,000 hectare. The Survey of the Department of Agricultural Statistics found that only 8,400 there are, therefore less than 5%, would have been planted in fact. Now one asks: where will the \$10 million invested during these first 4 years of agricultural credit be, if there is nothing at the level of the processing industry ? The country has made a huge investment effort in terms of credit, which has not achieved the minimum expected results.



Cashew yield by age.



1. Cashew trees begin to produce very early, as early as the third year.
2. Production increases every year until it reaches the mature phase of the tenth year. It is a very lively progression during the first few years (3 to 6), then continues to grow but at a less accelerated rate, between 7 and 10 years.
3. During its adulthood, which is established between 10 and 20 years of age, the plant reaches the stage of full maturation, reaching almost 1,300 kg per tree. At this time, the average production per tree reaches 3.1 kg of cashew nuts.
4. From the age of 20, the plant begins to age and its yield also begins to decline. From 20 to 25 years production decreases rapidly.
5. From the age of 26 the production almost disappears. In terms of conclusion, if this trend in the fall in plantation production is true depending on their age, and given that guinea-bissau plantations already have about 1/3 of their trees over the age of 20, it can be estimated that we are on the eve of the beginning of the downward curve for about 1/3 of the plants. The average economic life of a plantation is 25 years. The country has been exporting it since 1982/85. So about 20 years ago. This means that from the years 2010 about a 4 of our cashew trees will be in a descending phase of production.

In this chapter on the prospects for production, it is appropriate to recover the conclusion drawn from the relationship between plant ages and yield. There, the trend is for a relatively sharp drop from the age of 20. Considering that about 1/3 of our plantations are entering this age phase, particular attention is recommended on possible needs aimed at stimulating farmers about the need for cuts and replantations of cashew trees.

Harvesting is a task carried out by women and children in a daily way, because the fruit begins to rot after 2 to 3 days, under normal conditions. The task of harvesting lasts about 4 months (March 15 to early June), since there is a variation of 10 to 20 days between the flowering trees precose and those of normal flowering. That is why there are two important peaks to record in the collection: these are the months of April and May. When flowering reaches its peak. As soon as the rains begin, and the humidity of the air increases, the cashew fruits begin to rot still in the trees, before the full maturation of the seeds.

In average terms, each person spends about 7 to 8 hours to harvest 250kg of fruit. That is the equivalent of about 25kg of nut per day. And, usually this task implies a lot of movement of the labor during the period of its validity. It should be one of the most intense moments of labour mobility in the country. Most young people working as workers in Bissau often say goodbye to their jobs during this period, with the justification that they will support their relatives in the nut collection.



In this activity of the collection, the biggest problem that entrepreneurs and owners confront is related to the theft of part, sometimes significant, the result of the daily collection.



With lunch included: 45Fcfa/Kg of nut harvested. Without lunch included: 50 Fcfa/Kg of nut harvested. Against these values, a person who can harvest 80 kg of nut per day collects 4,000 Fcfa per day if he does not have access to the company's lunch. This makes a monthly gross income of 120,000 Fcfa/month.

After picking and separating the pulp of the cashew nut, it is dried, at least for one day, and only then stored. The big problem lies at the level of the nut collected at home. It's just that we're talking about 30 to 40 kg of chestnut a day, and houses that weren't designed with room to store that kind of product. Some families use iron drums to stock the product, others reuse nylon bags that contained rice. And in most cases, if they decide to keep their production for some time, in view of better prices, they are forced to sleep on the street to leave the rooms to their nuts.

As regards the distribution of the weight of work between the sexes, as regards the activity of the collection, this activity of the collection is feminine, with a near-zero presence of male members. When the activities related to production and the collection of the fruit, then it is concluded that, excluding all activities related to processing, the two sexes have a weight more or less identical in terms of the Contribution Man/Day: 45.2% for males and 54.8% for females.



Cashew is a fruit with two main parts: seed and false fruit. For this report, we will consider processing only these two parts of the fruit. With the cashew seed it is possible to peel and market the almond; with the false fruit obtain the cashew juice, from which you can extract the wine, the brandy and the champagne.

Let us also look at the main steps taken in this area of transformation and/or processing: The GETA-BISSAU Factory was the first one started in the country. Having quickly realized the added value that Guinea was exporting to India, with the pure and simple export of cashew nuts, Geta decided to invest in the processing of this product. The lack of experience, the lack of knowledge of the processing sector and the pitfalls of industrialization have made it fail. The factory, imported from Italy, could not peel a ton of nut. It cost more than \$3 million and now represents more of the country's white elephants.

The TIP'S wanted to avoid the GETA-Bissau error and did just the opposite: it preferred to opt for micro-enterprise as the basic dimension to base its entire development policy on the sector. The Brazilian technological experience in this field was sought. It was assumed that small processing units, even family members, could give better results taking into account the specificity of this market and the country. He preferred to rely on the development of perfectly handcrafted companies and investments of tiny size. Suppose, many 'companies' interested in this micro experience would appear.



The war of 1998 was one of the factors that disrupted and jeopardized the investments made by the different entities. Most of the units are gone. Almost none of them were able to honor their commitments to credit. The market that seemed so close and easy to reach became the largest bottleneck of the units: none had the capacity to respect the minimum quantities required by export contracts (1 container/month).

AGRI- BISSAU experience seems to have been the magic formula that has been sought for years. The idea of artisanal and family units should possibly not be the basis of the political orientation of this strategy. It is that these units could only enter this game, as addition elements to the "pivot" units, which would be the Base Factories.

Recently, an Association was created to defend the interests of cashew nut processors. It is negotiating a Protocol of Agreement with the Government which, among other things, highlights the need to achieve the storage of 2,000 M/T of chestnut in Bissau to serve the different processing units that exist. At the moment, there are already about 18 processing units, not counting the largest ones: B&B, Agri-Bissau, and SICAJU. During the 2003 campaign, about 26 Ton were processed and exported. The main export destinations were: Portugal, Cape Verde, Senegal, Mali, France, Guinea-Conakri, Gambia.

Per day, on average, is made a collection of about 250Kg of cashew, which is equivalent to say 25Kg of nut. For every 2.25 kg of cashew pulp, an average of 1L. of juice can be extracted. The extraction rate varies around 40L. of sumo per person/day. The equivalent of a processing of 90 kg of pulp/day. This is an essentially feminine activity.

The Structure of the Commercial System presents four main pillars: state institutions, private institutions, private associations and operators, in the broad sense of time. The institutions of the State which intervene, directly or indirectly, are:

Farmers are the basis of the whole system. They guarantee at least about 80% of the production of the nut. They are autonomous, nuclearised entities, organised in terms of family and based on community and traditional values. Unfortunately, they do not have local economic organizations defending their interests.

Intermediaries are the basis of the cashew trading system. They are the first category of merchants and the closest to the peasants. We refer to those who are established in the last trading centres of the chain. Unfortunately, this category is being very rapidly replaced by mauritanians.





Wholesalers represent a new category of actors that is emerging in the chain of this business. They are still in a very small number and have the motto to negotiate as much chestnut as possible without any ambition to carry out their export.

Exporters represent the final part of the chain of this business. When they export cashew nuts, and taking into account the tax system adopted by the Government, they turn out to be the class that most directly establishes a relationship with the State in the tax chapter. Finally we have the brokers, understood as the buyers of the nut exported by the class of exporters. It is an activity dominated by 99% by Indian operators. Suffice it to mention that India is the only buyer market for GuineaBissau's 'in natura' nut. These represent the chain of intermediaries that sells to large Indian buyers to sell, in turn, to factories that carry out the processing of cashew nuts. Between 1983/2022 there was a systematic increase in the export of cashew nuts, except for some specific falls derived from various factors. Until the War of 1998, there were national companies with the capacity to seek credit at the banking level, carry out their operations to purchase the raw material and sell their product to the Indians. After this War, the situation changes substantially. Indians will now be able to control the entire cashew nut pre-financing chain, with all the inherent advantages and risks. The escape across the border of a part of the cashew nuts remains one of the main concerns of the State. World production has changed quite profoundly. This is the increase in global production and the change of the main production zone. For production, world production is confirmed between 1975 and 2020. In 1975 this production reached 510,000 Ton. 2018 world production reached 1,090,000 ton.

Market demand, requested by several companies on the almond of Guinea.

- From Portugal there are offers for 10 to 12 containers /month;
- Spain, only one company, requested 20 containers/month;
- From the Netherlands, a company requested the offer of 50 containers/month;
- From the United States, another company, which also needs almond-bio, needs 150 to 200 containers/month.



All of these sub-products referred to above have been regarded as belonging to the informal sector of the economy, where the State practically does not interfere. All these sub-products are considered to belong to the world of the informal, relative to which there are neither policies, nor programmatic framework, nor legislation. Let us say that the Government has not thought or acted on these areas of activity.

Improvement of marketing conditions:

1. In this first phase, all efforts should be concentrated on the international marketing of this product;
2. The experience initiated with Enterprise Works, in particular the negotiations taking place with ROTA Internacional, for the export of 10 monthly containers of natural products to the United States market is an example to support, carve and disseminate to the fullest;



3. Clarification of the tax policy of the chestnut processing industry. In particular, in the aspects relating to the costs of land legalisation, legalisation of industry, and costs related to the export of almonds.

Similarly, in relation to cashew wine and cane brandy, it is urgent to introduce improved technology to provide better and more profitable conditions for the processing of juice extracted from the false cashew fruit. Cashew fruit represents a valuable potential for export in the quality of feed for cattle.

III. CONCLUSION

On all field activities related to production (deforesting, planting, cleaning, maintenance and placement of fireworks), collecting and producing cashew juice, the data showed that, in terms of gender, the exploitation of cashew is an essentially female activity, with women occupying 81% of the total h/D of the necessary work on 1Ha of planting throughout its economic life.

1. The fact that fertilizers and fertilizers are not used, enhances our cashew for the bio market. It is at all recommended the continuation of this policy to avoid, expressly and radically, any temptation to introduce chemical fertilizers in cashew plantations.

2. Combat pests and diseases from agronomic and biological methods, avoiding at all costs, start the cyclical process of chemical treatment, which is very costly and never has an end.

3. Retrieve the quarantine procedure at border posts in relation to cashew seeds. Prohibit the import of seeds from other sources.

4. Introduce the need for drying the nut after picking, through penalty mechanisms at the price level.

5. Stimulate the creation of new plantations, with a view to the need to replace the first rooms of the older plantations.

6. Creation of micro-credit mechanisms for planters as a way to reduce their extreme dependence on intermediaries.

REFERENCE LIST

Berezin I.S. (2007) Marketing and Market Research. Moscow: Russian Business Literature. 416 p. (In Russ).

Katusov D.N. (2013) Prospects of using an electrostatic field in food production. Modern problems of technology and technology of food production: Collection of articles and reports of the fifteenth international scientific and practical conference. Barnaul. Pp. 64-69. (In Russ).

Kazizade F.N., Mammadov B.A. (1974) Methods of propagation of nut and fruit crops. Ministry of Agriculture of Azerbaijan SSR. The Main Directorate of Agricultural Science and Propaganda. Baku. P. 12. (In Russ).

Klimova E.V. (2009) Express monitoring of the lipid oxidation process in the kernels of nuts stored under controlled conditions using an electronic nose and the method of solid-phase microextraction in combination with gas chromatography. Food and processing industry. Abstract journal. Vol. 4. Pp. 942. (In Russ).

Kolesnikov V.A. (1962) Root system of fruit and berry plants and methods of its study. M.: Agricultural publishing house. 191 p. (In Russ).

Morozov A.B. (1983) The state and prospects of development of nut crops. Gardening. Vol. 2. Pp. 18-20. (In Russ).



Shchepotyev F.L., Richter A.A. (1978) Nut-bearing forest crops. M.: "Forest industry". 256 p. (In Russ).

Starodubtseva G.P. (2012) Development of a method for pre-sowing treatment of seeds of agricultural crops with a pulsed electric field (IEP) and economic justification of its use. Polythematic network electronic scientific journal Kub GAU. Vol. 75 (01). Pp. 1037-1051. (In Russ).

Vadyudina A.F., Korchagina Z.A. (1973) Methods of investigation of physical properties of soils and soils. M.: "Higher School". 399 p. (In Russ).

Vorobyov A.C., Avaev M.G. (1961) Laboratory and practical classes in soil science and agriculture. M.: Agricultural Publishing house. 336 p. (In Russ).

Yablokov A.C. (1968) On the mass reproduction of nut-bearing breeds by seeds. Forestry. Vol. 4. Pp. 8-12. (In Russ).

Zhuravleva M.N. (1975) Commodity science of food products. M.: Economics. 448 p. (In Russ).



ПРОИЗВОДСТВО ОРЕХОВ КЕШЬЮ В ГВИНЕЕ-БИСАУ

Энса Джасси¹

¹Воронежский государственный технический университет, ул. 20-летия Октября 84,
Гвинея-Бисау, E-mail: ensadjassi22@gmail.com

Аннотация

Гвинея-Бисау вышла на международный рынок кешью еще до обретения политической независимости в 1974 году. Первые экспортные поставки были подтверждены в 1966 году, когда было экспортировано 770 тысяч тонн. Этот продукт всегда занимал четвертое место по объему экспорта сразу после арахиса, кокоса и их производных, а также пиломатериалов. В 1970 году страна экспортировала 1200 тонн орехов кешью. Нехватка орехов кешью на международном рынке в результате внезапного падения производства в Мозамбике стала одним из факторов, способствовавших повторному завозу орехов из Гвинеи-Бисау на международный рынок.

Ключевые слова: сельское хозяйство, орех кешью, рынок, страна, культура.

СПИСОК ЛИТЕРАТУРЫ

- Berezin I.S. (2007) Marketing and Market Research. Moscow: Russian Business Literature. 416 p. (In Russ).
- Katusov D.N. (2013) Prospects of using an electrostatic field in food production. Modern problems of technology and technology of food production: Collection of articles and reports of the fifteenth international scientific and practical conference. Barnaul. Pp. 64-69. (In Russ).
- Kazizade F.N., Mammadov B.A. (1974) Methods of propagation of nut and fruit crops. Ministry of Agriculture of Azerbaijan SSR. The Main Directorate of Agricultural Science and Propaganda. Baku. P. 12. (In Russ).
- Klimova E.V. (2009) Express monitoring of the lipid oxidation process in the kernels of nuts stored under controlled conditions using an electronic nose and the method of solid-phase microextraction in combination with gas chromatography. Food and processing industry. Abstract journal. Vol. 4. Pp. 942. (In Russ).
- Kolesnikov V.A. (1962) Root system of fruit and berry plants and methods of its study. M.: Agricultural publishing house. 191 p. (In Russ).
- Morozov A.B. (1983) The state and prospects of development of nut crops. Gardening. Vol. 2. Pp. 18-20. (In Russ).
- Shchepotyev F.L., Richter A.A. (1978) Nut-bearing forest crops. M.: "Forest industry". 256 p. (In Russ).
- Starodubtseva G.P. (2012) Development of a method for pre-sowing treatment of seeds of agricultural crops with a pulsed electric field (IEP) and economic justification of its use. Polythematic network electronic scientific journal Kub GAU. Vol. 75 (01). Pp. 1037-1051. (In Russ).



Vadyudina A.F., Korchagina Z.A. (1973) Methods of investigation of physical properties of soils and soils. M.: "Higher School". 399 p. (In Russ).

Vorobyov A.C., Avaev M.G. (1961) Laboratory and practical classes in soil science and agriculture. M.: Agricultural Publishing house. 336 p. (In Russ).

Yablokov A.C. (1968) On the mass reproduction of nut-bearing breeds by seeds. Forestry. Vol. 4. Pp. 8-12. (In Russ).

Zhuravleva M.N. (1975) Commodity science of food products. M.: Economics. 448 p. (In Russ).