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Research Application Summary

Analysis of the production system and marketing of improved groundnut seed in Kolokani area

Diarra, O.[1,2*], Karambé, B.[2], Kassogué, T. P.[1], Traoré, A. B. M.[3,] and Dagnoko, S.[1,2,3]

[1]Rural Polytechnic Institute of Training and Applied Research, Koulikoro, Mali
[2]Seneso Ltd, Agricultural Research and Development Society, Bamako, Mali
[3]Sasakawa Africa Association, Bamako, Mali

***Corresponding author:** ousdiarra889@gmail.com

Abstract

The present study analyzes the system for producing and marketing improved groundnut seed in Kolokani. Data from the study were collected from 30 groundnut seed producers in the above-mentioned locality in May 2019 using semi-structured interviews and focus group discussions. Producer output value and margin analysis approaches are used in this study to estimate the value added and gross and net margins obtained in groundnut seed production in Kolokani. The overall results of our study allow us to say that 62.08% of our sample did not attend school which is limiting factor to the use of the recommended technics of production of seed by some producers. The producers are mostly adults with an average age of 48 years. Our study showed that men represent 75.86% of the sample. Also 93.10% of the sample are married which favors the abundance of the family labor which carries out most of the rural work. The results also showed that a groundnut seed producer in Kolokani earns on average 498,007 FCFA / season and per hectare as net income (profit) with a yield of 1,499 kg / ha and an average selling price of 581 FCFA the Kg. The break-even point was 643.54 kg, which is not reached by all the producers surveyed due to several factors, particularly soil poverty etc.. However, the rate of return of 133% shows that the improved seed production of groundnut in the Kolokani area is profitable. In spite of the rather satisfactory economic results, the producers encounter many constraints which limits groundnut seed production due to the control of sales prices by the buyers, the insufficiency of agricultural equipment (plow, tractor, seeder, tarpaulin, hullers, etc.), difficult access to quality seeds of improved varieties; early cessation of rains causing difficulties in harvesting. To make groundnut seed production more profitable in Kolokani, policymakers and development agencies must facilitate the organization of producers into a cooperative or group to enhance their bargaining power and management in order to facilitate their access to input, equipment and profitable seed markets. Good producer organization can also facilitate access to improved production technologies.

Key words: Break-even point, groundnut, Certified Seed, Production, Productivity, Profitability,

Résume

La présente étude analyse le système de production et de commercialisation des semences améliorées d'arachide à Kolokani. Les données de l'étude ont été collectées auprès de 30 producteurs de semences d'arachide de la localité en mai 2019 à l'aide d'entretiens semi-structurés et de discussions de groupe. Des approches d'analyse de la valeur de la production et des marges des producteurs sont utilisées dans cette étude pour estimer la valeur ajoutée et les marges brutes et nettes obtenues dans la production de semences d'arachide à Kolokani. Les résultats globaux de notre étude nous permettent d'affirmer que 62,08% de notre échantillon n'a pas été scolarisé ce qui constitue un frein à l'utilisation des techniques recommandées de production de semences par certains producteurs. Les producteurs sont majoritairement des adultes avec une moyenne d'âge de 48 ans. Notre étude a montré que les hommes représentent 75,86% de l'échantillon. De plus, 93,10% de l'échantillon est marié ce qui favorise l'abondance de la main d'œuvre familiale qui effectue la plupart des travaux ruraux. Les résultats ont

également montré qu'un producteur de semences d'arachide à Kolokani gagne en moyenne 498.007 FCFA / saison et par hectare comme revenu net (bénéfice) avec un rendement de 1.499 kg / ha et un prix de vente moyen de 581 FCFA le Kg. Le seuil de rentabilité est de 643,54 kg, qui n'est pas atteint par tous les producteurs enquêtés en raison de plusieurs facteurs, notamment la pauvreté des sols etc. Cependant, le taux de rentabilité de 133% montre que la production de semences améliorées d'arachide dans la zone de Kolokani est rentable. Malgré les résultats économiques plutôt satisfaisants, les producteurs rencontrent de nombreuses contraintes qui limitent la production de semences d'arachide en raison du contrôle des prix de vente par les acheteurs, de l'insuffisance du matériel agricole (charrue, tracteur, semoir, bâche, décortiqueurs, etc.), de l'accès difficile aux semences de qualité des variétés améliorées et de l'arrêt précoce des pluies entraînant des difficultés de récolte. Pour rendre la production de semences d'arachide plus rentable à Kolokani, les décideurs politiques et les agences de développement doivent faciliter l'organisation des producteurs en coopérative ou en groupement afin de renforcer leur pouvoir de négociation et leur gestion pour faciliter leur accès aux intrants, aux équipements et aux marchés de semences rentables. Une bonne organisation des producteurs peut également faciliter l'accès aux technologies de production améliorées.

Mots clés : Seuil de rentabilité, arachide, semences certifiées, production, productivité, rentabilité.

Background and problem statement

The Malian's economy is essentially based on the rural sector, which employs about 80% of the population. The contribution of the rural sector to GDP is estimated at 46% (of which 26% for agriculture). It is because of the crucial role played by agriculture that the Government, during the last ten years, has decided to inject large investments into this sub-sector and to make Mali an agricultural power.

A modern agriculture, generating income that could reduce poverty is the goal of agricultural programs and projects. Achieving these goals requires the optimal use of factors of production, including quality seed. The importance of seed as a factor in improving agricultural productivity and production is well established. The use of quality seed contributes significantly to increasing crop yields (30-40%). Since independence, the government of Mali has made significant efforts to ensure that producers have quality seeds. The seed sector has undergone many changes without the establishment of a scheme to ensure the satisfaction of users' needs.

Faced with the multiple constraints encountered in the execution of the multiplication scheme to which appropriate solutions must be found; and in view of the fact that the Agriculture Orientation Law (LOA) in its Articles 109, 131, 132 and 141 places special emphasis on the scope of marketing and using selected seeds; it is important to design and implement a national seed policy that defines all institutional, structural, organizational and financial measures (Mali Seed Policy, 2009). It is in this context that the present study was conducted in Kolokani area to analyze the production system and the marketing of groundnut certified seed.

Objectives

Overall objective

Generally, the study intended to analyze the production and marketing system of the improved groundnut seed in Kolokani area.

Specific objectives

More exactly, it consisted to:

1. Characterize the socio-demographic status of groundnut seed producers in study area;

2. Determine the costs of groundnut production;
3. Specify the profitability of the groundnut seed production;
4. Investigate on the constraints faced by groundnut seed producers and
5. Propose improvement solutions to groundnut seed production and marketing.

Study description

The study was conducted in Kolokani area. Primary data were collected from 30 groundnut seed producers by using semi structured interviews and focus group discussions. Literature review was conducted to collect secondary data in order to get further information about seed production and marketing systems, especially on groundnut. Excel and word software were used to codify, enter, analyze and interpret data obtained from the field. All the data were descriptively analyzed by using frequency and percentages.

Research findings

The results of our study showed that 62.08% of our sample are illiterate, which is at the basis of the ignorance of the recommended technics of seed production by some producers. The average age of producers is 48 years showing that producers are mainly adults. It appeared that men make up the majority with 75.86%, which means that men are more involved than women in groundnut seed production and marketing systems. In addition, 93.10% of the respondents are married, which favors the abundance of family labor who does most of the fieldwork.

After analysis, the results showed that a groundnut seed producers earn on average 498,007 FCFA / season and per hectare as net income (profit) with a yield of 1,499 kg / ha and an average selling price of 581 FCFA (approximately $1). The break-even point was 643.54 kg which is not reached by all the producers surveyed due to several factors including soil poverty. In addition, groundnut producers are faced with several constraints, which are mostly related to production, packaging and marketing of seed. Among those constraints, we have:

Constraints related to seed production
- Low quantity and poor distribution of rains;
- Lack of qualification in the agricultural field on how to produce improved seeds ;
- Soil depletion;
- The high cost of agricultural inputs;
- Insufficient use of agricultural equipments.

Constraints related to packaging and marketing of seed
- Difficult access by road degradation;
- Lack of potential customers for the purchase of the products…

Application of research findings

Seed is the first basic input in agriculture. The quality of the seed used by farmers determines the type of farming practiced. However, for the maximum gain in productivity, the use of improved varieties and integrated management are needed. Not only does each of them alone help to increase productivity, but they also act synergistically. Thus, to make the groundnut seed production and commercialization more profitable in term of productivity, and income generation for the farmers in the study area, the consideration of the following recommendations is required:

- Promote access to agricultural inputs and equipment on time;
- Help to set up appropriate storage facilities for good conservation;
- Capacity building of producers (producer training) on how to produce improved seed;

- Promote the production of foundation seeds by agronomic research structures;
- Develop agronomic research to be able to update and disseminate technical itineraries on groundnut seed that could increase production per unit area, thereby improving the level of performance and competitiveness;
- Subsidize agricultural products;
- Put in place strategies for the marketing of seed products.

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