
MOTIVATIONAL INITIATIVES REQUIRED BY INTERNALLY DISPLACED YOUTHS FOR CASTOR SEED (*RICINUS COMMUNIS*) PRODUCTION IN KOGI STATE, NIGERIA.

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ABSTRACT

The study examines motivational initiatives required by internally displaced youths for castor seed (*Ricinus communis*) production in Kogi State. Three research questions and two null hypotheses guided the study. The study adopted survey research design. The population of the study was 398 respondents made up of 290 registered castor seed farmers and 108 agricultural extension agents. The instrument for the study was a 41 items questionnaire developed from literature reviewed titled “motivational skills required in castor seed production (’MSRCSP) and used for data collection. Cronbach Alpha method was used to determine the internal consistency of the questionnaire items and a reliability coefficient of 0.80 was obtained. Findings from the study revealed that all the 17 items on post planting operations on castor seed were rated required, all the 8 items and 14 items on harvesting and marketing of castor seed were also rated required by respondents. It was recommended amongst others that extension agents should package the identified motivational skills in castor seed production into training manual and video shows for the internally displaced youths in Kogi State. This could reduce the problem of unemployment in the state.

Keywords: Motivational initiatives, internally displaced youths, castor seed & production.

1. INTRODUCTION

Castor bean plant (*Ricinus Communis*) belongs to the family *Euphorbiaceae* and probably indigenous to the south-eastern mediteranean region and parts of East – Africa. It is widespread throughout the tropical regions of the world (Ogieva, 2003). It is a short-lived perennial crop, which grows into a tree of 8 to 10 metres in height. There are annual dwarf types of 0.6m to 1.2m in heght. The leaves are large, usually 2cm-5cm wide and are of different varieties ranging from green, purple or red while the stem may also be green or red. It is an important drought resistant shrub. Ali (2014) states that castor plant are very common along stream banks, river beds, bottom lands where the soil is well drained, and has sufficient nutrient and moisture to sustain the vigorous growth. The yield per hectare per year could reach up to 1000kg of castor seed oil (Akande etal, 2012).

As reported by Uguru (2000), castor seed contains undecylenic acid which due to its germicidal and disinfectant properties is useful for treating skin diseases and skin ulcers, particularly those which are caused by bacterial or fungal infections. It is also widely used as laxative for effective

treatment of extreme constipation. Orabuike and Ibe (2009) affirms that castor oil ease and enhance milk flow. This is because of the presence of fatty acid in the oil. However, its cold-compressed form only should be taken in low doses to avoid any adverse effects on the infant by pregnant women. In spite of the benefits of castor oil seed, its production in recent time has declined considerably due to the poor attitude of farmers towards production. Consequently, castor seed in the market is difficult to find, thus, the demand for castor oil seed exceeds the supply in Kogi State, Nigeria. This situation calls for youth's participation.

In the explanation of Ijoma and Ibezim (2010), youth is a stage in ones' life when one is agile, energetic, determined and adventurous in experimenting different perspective of life. They further stressed that youths have high enthusiasm and learn fast. In the context of this study, internally displaced youths are those youths who returned to Kogi State from the battle ravaged area carried out by Boko Haram militant in North Eastern part of Nigeria. For these internally displace youths, it is necessary to engage them in castor seed production because of its importance in the area of high oil yield, low inputs and superiority as a source for biodiesel. This implies that farmers can reach maximum production level with minimum cost. The success of castor seed production depends on the extent to which motivational skills initiatives are possessed by the teeming internally displaced youths. Skills required are in post planting operations, harvesting and marketing of castor seeds. Iwena (2012) asserts that post planting operation include thinning/supplying, weeding, manure/ fertilizer application, control of pests and diseases, and pruning.

As explained by Onuekwusi (2005), the youths have been identified as contributing a major resource base for any country that desires to embark on any meaningful agricultural development projects. This is because motivational initiatives (in castor seed production) can be inculcated in them which in turn enable them to play active role in the society. Adedoyin (2005) opined that motivation is a process of initiating conscious and purposeful action, hence, satisfying behavior. Initiative as used in this study is an aspect of skill or a task that involves being proactive rather than reactive, spotting and taking advantage of opportunities or tasks as they arise and persisting in the face of setback (Ekele, 2016).

Observation by the researchers in the study area confirmed that castor seed production is carried out by few ageing farmers that have declining physical strength. Though youths have desirable qualities that can promote agriculture, most of them have apathy towards it because of non-awareness of the profit/benefit accruable from castor seed production. Furthermore, the dearth of able-bodied men will ultimately necessitate the injection of new blood in the production of castor seed to engage the displaced youths. It is therefore important to delve into motivational initiatives required by these internally displaced youths in castor seed production in Kogi State, Nigeria. Specifically the study sought to examine:

1. Motivational initiatives required by internally displaced youths in post-planting operation of castor seed.
2. Motivational skills required by internally displaced youths in castor seed harvesting.
3. Motivational skills required by youths in marketing of castor seed.

Research Questions

1. What are the motivational skills required by internally displaced youths in post planting operation of castor seed?
2. What are the motivational skills required by internally displaced youths in castor seed harvesting?
3. What are the skills required by youths in marketing of castor seed?

Hypotheses

HO₁: There is no significant difference in the mean rating of the responses of farmers and extension agents on motivational initiatives required by youths in castor seed harvesting.

HO₂: There is no significant difference in the mean rating of the responses of extension agents and farmers on skills required by youths in marketing of castor seed.

2. MATERIALS AND METHODS.

Three research questions guided the study. Survey research design was adopted for the study. The design was appropriate for the study because questionnaire was used to collect data from castor seed farmers and agricultural extension agents. The study was carried out in Kogi State, Nigeria. The population for the study was 398 made up of 290 registered castor seed farmers and 108 agricultural extension agents (Field survey,2018). All the 290 castor seed farmers and 108 extension agents were involved in the study. The instrument for the study was a 41 items questionnaire developed from literature reviewed titled “*motivational skills required in castor seed production(MSRCSP)*” and used for data collection. The questionnaire had four points response option of Highly required, required, Slightly required and not required with corresponding nominal value of 4,3,2, and 1 respectively. Three experts validated the instruments, two from the Department of Agricultural Education and one from Department of crop production in the University of Agriculture, Makurdi-Benue State, Nigeria. Cronbach Alpha method was used to determine the internal consistency of the questionnaire items. A reliability coefficient of 0.80 was obtained. The researchers employed one research assistants in the administration of “MSRCSP” on the respondents. A total of 398 copies of the questionnaire were distributed to the respondents. All 398 copies of the questionnaire were retrieved and analyzed using mean(x) and standard deviation to answer research questions. Any mean score of 2.50 and above is regarded as required while mean score of 0.5 to 2.49 is considered not required. The hypotheses of no significance difference were accepted when p-value exceed 0.05 level of significance and rejected if otherwise.

3.RESULTS

Table 1: Mean and Standard Deviation of Agricultural Extension Agents and Castor Seed Farmers on Motivational skills required by youths for post planting operation (Fertilizer, Weed and Pest and Disease Control).

S/N	Items	\bar{X}_1	SD ₁	\bar{X}_2	SD ₂	\bar{X}_g	SD _g	Decision
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1	Apply organic manure (cattle dung, poultry dropping and plant residue)	3.28	0.89	3.29	0.85	3.29	0.87	Required
2	Apply nitrogen phosphorus potassium (NPK 40:40:20)	3.43	0.67	3.11	0.80	3.27	0.74	Required
3	Apply soil organic matter.	2.87	1.10	3.02	0.98	2.95	1.00	Required
4	Apply fertilizer by ring method	2.98	1.04	3.04	0.97	3.01	1.00	Required
5	Apply fertilizer using side dressing method.	2.84	1.12	3.30	0.96	3.07	1.00	Required
6	Control weeds manually by hoeing and slashing	2.81	1.04	3.19	0.84	3.00	0.94	Required
7	Weed the field 3-6 times in a cropping season.	2.88	1.05	3.05	0.99	2.97	1.00	Required
8	Maintain fields bunds	3.28	0.98	3.32	0.78	3.30	0.88	Required
9	Apply selective herbicides (Glyphosate at the rate of 1.92kg/ha)	3.24	0.90	3.20	0.94	3.22	0.92	Required
10	Spray plants with fungicides (Sulphur containing fungicide)	2.77	1.12	3.07	0.89	2.92	1.00	Required
11	Uproot infected plants	2.80	1.14	3.47	.716	3.14	.928	Required
12	Prune the lowest side branches at the early growing stage.	3.16	0.96	3.33	0.75	3.25	0.86	Required
13	Rejuvenate old plant	2.80	1.04	2.97	1.03	2.89	1.00	Required
14	Improve circulation of air and light	2.87	1.02	3.49	0.66	3.18	0.84	Required
15	Prune the lower branches to help in harvesting	2.87	1.05	2.91	1.07	2.89	1.00	Required

16	Fire tracing at 3.0m round the plot	3.02	1.02	3.29	0.87	3.16	0.94	Required
17	Practice integrated pests and disease management system	2.94	1.04	3.14	0.92	3.04	0.98	Required

Keys: N =Number of Respondents, ($N=398$; $n_1=290$; $n_2=108$), \bar{X}_1 = Mean of Extension Agents, SD_1 = Standard Deviation of Extension Agents, \bar{X}_2 = Mean of Castor Seed Farmers, SD_2 = Standard Deviation of Castor Seed Farmers, \bar{X}_g = Grand Mean of the Respondents, SD_g = Grand Standard Deviation of the Respondents

Table 1 data revealed that all the identified post planting operations skill items required for castor seed farming had their means ranging from 2.89 to 3.30 and they are higher than 2.50 which indicated that all the skills items in post planting operations are required by internally displaced youths. The standard deviations ranged from 0.74 to 1.00 which is an indication that the respondents were not far from the opinions of one another.

Table 2: Mean and Standard Deviation of Agricultural Extension Agents and Farmers on motivational initiatives required by youths in harvesting of castor seed.

S/N	Items	\bar{X}_1	SD_1	\bar{X}_2	SD_2	\bar{X}_g	SD_g	Decision
1	Harvest when mature castor seed dry and open	2.70	1.05	3.44	0.77	3.07	0.91	Required
2	Pick one by one and separate the seed from one another	2.67	1.12	2.92	1.11	2.80	1.00	Required
3	Harvest the crop direct from the tree	3.07	0.96	3.15	0.92	3.11	0.94	Required
4	Harvest the seed once in a week	2.77	1.12	3.04	0.95	2.91	1.00	Required
5	Dry the harvested seed under the sun for some hours to reduce moisture content.	2.87	1.08	3.06	0.96	2.97	1.00	Required
6	Use knife to break it open to collect the seed	2.72	1.07	3.03	1.04	2.88	1.00	Required
7	Beat the harvested pod with	2.78	1.07	2.91	1.03	2.85	1.00	Required

	stick to collect the seed							
8	Pound the harvested pod in mortar before collecting the seed	2.94	0.99	3.47	0.72	3.20	0.85	Required

N=Number of Respondents, (N=398; n₁=290; n₂=108), \bar{X}_1 = Mean of Extension Agents, SD_1 = Standard Deviation of Extension Agents, \bar{X}_2 = Mean of Castor Seed Farmers, SD_2 = Standard Deviation of Castor Seed Farmers, \bar{X}_g = Grand Mean of the Respondents, SD_g = Grand Standard Deviation of the Respondents

Data in Table 2 revealed that all the identified motivational initiatives (skills) in harvesting of castor seed had their mean ranged from 2.80 to 3.20 which are higher than 2.50. This shows that the respondents are in agreement on motivational skill items required for harvesting of castor seed. The standard deviations ranged from 0.85 to 1.00 which indicates that the respondents were not far from the opinions of one another.

Table 3: Mean and Standard Deviation of Agricultural Extension Agents and Castor Seed Farmers on Skills Required by youths in Marketing of Castor Seed.

S/N	Items	\bar{X}_1	SD_1	\bar{X}_2	SD_2	\bar{X}_g	SD_g	Decision
1	Sort and grade castor seed according to quality and remove stone and extraneous materials	3.23	0.90	2.85	1.10	3.04	1.00	Required
2	Provide jute bags and treat the bags with appropriate chemicals before parking the castor seed	3.10	0.97	3.15	0.92	3.13	0.94	Required
3	Provide needle and thread for sowing the mouth of the bags	3.09	0.93	2.93	1.01	3.01	0.97	Required
4	Weigh each bag of castor using weighting machine	2.78	1.03	3.14	0.81	2.96	0.92	Required
5	Record the weight of each bag for storage and marketing	2.90	1.04	2.83	1.13	2.87	1.00	Required
6	Make market survey for	2.93	0.91	3.30	0.81	3.12	0.86	Required

	the castor seed.								
7	Fix prices for castor seed per kilogram weight.	2.79	1.14	3.34	0.89	3.07	1.00	Required	
8	Identify distributing channels for castor seed.	3.07	0.92	3.22	0.87	3.15	0.89	Required	
9	Advertise castor seed to buyers	2.84	1.06	2.94	1.02	2.89	1.00	Required	
10	Determine when to supply seed to market for profit	2.66	1.06	3.36	.870	3.01	0.97	Required	
11	Transport castor seed to market for sale	2.75	1.10	2.91	0.95	2.83	1.00	Required	
12	Sell castor seed at the farm site or market	3.03	0.91	3.09	0.98	3.06	0.89	Required	
13	Keep the inventory of all the unsold castor seed.	3.01	0.98	3.23	0.92	3.12	0.95	Required	
14	Reconcile sales and production record to ascertain profit or loss	2.86	1.04	3.43	0.78	3.15	0.91	Required	

N=Number of Respondents,(N=398; n₁=290; n₂=108), \bar{X}_1 = Mean of Extension Agents, SD_1 = Standard Deviation of Extension Agents, \bar{X}_2 = Mean of Castor Seed Farmers, SD_2 = Standard Deviation of Castor Seed Farmers, \bar{X}_g = Grand Mean of the Respondents, SD_g = Grand Standard Deviation of the Respondents

Data presented in Table 3 indicated that all the identified skills in marketing of castor seed had their means ranged from 2.83 to 3.15 and they are all higher than 2.50 which indicated that all the 14 skill items are required by youth in marketing of castor seed. The standard deviations ranged from 0.86 to 1.00 which indicates that the respondents were not far from the opinions of one another.

Research Hypothesis 1

There is no significant difference in the mean rating of the responses of farmers and extension agents on motivational skills required by youths in castor seeds harvesting.

Table 4: t-test analysis of the mean ratings of Agricultural extension workers and registered castor seed farmers on motivational skills required in castor seeds harvesting.

Groups	N	Mean	SD	DF	t-cal	P-value	Sig.L
Extension Workers	108	23.86	7.22	396	3.07	0.00	0.05
Castor Seed Farmers	290	26.27	6.21				

N= Numbers of Respondents, SD= Standard Deviation, DF= Degree of Freedom, t-cal= t calculated.

Data presented in Table 4 revealed that the P-value of 0.00 is less than 0.05 level of significant at 396 degree of freedom; this implies that the t- test is significant(S) Therefore, the null hypothesis is rejected. This implies that there is a significant difference in the mean rating of the responses of farmers and extension agents on the motivational skills required by youths in castor seeds harvesting. The result of the post hoc analysis revealed that the castor seed farmers contributed to the observed significant difference and this could be as a result of their vast experiences in agriculture practices as they are more directly involved in the practical.

Research Hypothesis 2

There is no significant difference in the mean rating of the responses of farmers and extension agents on motivational initiatives (skills) required by youths in marketing of castor seeds.

Table 5: t-test analysis of the mean ratings of Agricultural extension workers and registered castor seed farmers on motivational skills required by youths in marketing of castor seeds.

Groups	N	Mean	SD	DF	t-cal	P-value	Sig.L
Extension Workers	108	24.72	7.07	396	1.68	0.10	0.05
Castor Seed Farmers	290	26.01	6.18				

N= Numbers of Respondents, SD= Standard Deviation, DF= Degree of Freedom, t-cal= t calculated

The result presented in Table 5, showed that the P-value of 0.10 is greater than 0.05 level of significant at 396 degree of freedom; this implies that the t- test is not significant(NS).Therefore, the null hypothesis is not rejected. This implies that there is no significant difference in the mean rating of the responses of farmers and extension agents on motivational skills required by youths in marketing of castor seeds.

4.DISCUSSION OF FINDINGS

The finding from Table 1 revealed that seventeen skill items identified are the motivational skills required for post planting operation in castor seed production. The finding was in line with the view of Iwena (2012) who opined that post-planting operations includes water supply, thinning/weeding, manure/fertilizer application, control of pests and diseases and pruning. The finding also is in conformity with the findings of Ekele *et al.*, (2015) who found that improvement is needed in 11 skills items in post-planting operations of rice by farmers in

Plateau State, Nigeria. The result of the study further revealed that there is a statistical significant difference in the mean rating of the responses of extension agents and farmers on motivational skills required by youths in post-planting operations of castor seeds production. This finding could be as a result of the vast experiences of farmers in agriculture practices as they are more directly involved in the practical.

Findings from Table 2 showed that all the eight skill items identified are the motivational skills initiatives required by youths in castor seed harvesting. The finding was in agreement with the finding of Ugwoke *et al.*, (2013) who in their study of occupational competencies required by retirees for pawpaw production identified 11 competencies in harvesting pawpaw pods. The result from the hypothesis tested revealed that there is a significant difference in the mean rating of the responses of extension agents and farmers on the technical skills required by youths in castor seeds harvesting. This finding could be as a result of the vast experiences of farmers in agriculture practices as they are more directly involved in the practical.

Findings from Table 3 revealed that all the fourteen skill items identified are the motivational skills required by youth in marketing of castor seed. This finding is in consonance with the finding of Ekele (2016) who found that lecturers in tertiary institutions need to be trained in 7 competencies skill areas in marketing of sugar cane in Kano, and Katsina States of Nigeria. Findings from the hypothesis tested further revealed that there is no significant difference in the mean rating of the responses of farmers and extension agents on the motivational skills required by youths in marketing of castor seeds. The result obtained could be as a result of the fact that both the extension agents and farmers are similar in their knowledge of the skills required by youth for marketing of castor seed

5.CONCLUSION

In castor seed production, there is need to improve production and transformation opportunities through introduction of appropriate motivational skills. This study has shown that all the 41 motivational skill items identified were required by internally displaced youth for castor seed production. Hence, there is need for this building population of youths to be properly informed and trained in these areas of enterprise (castor seed production) so that they could find themselves self-employed or employed by other bigger castor seed production enterprise for them to be able to make a living.

6.RECOMMENDATIONS

1. The identified skills in post planting operations of castor seed should be regularly taught by extension agents to internally displaced youths to ensure proper mastery of these skills.
2. Motivational skills identified in harvesting of castor seed should be packaged into video films and played in all rural town halls by extension agents in collaboration with castor seed farmers.
3. Ministry of agriculture in Kogi state should engage the internally displaced youth following the procedure of marketing identified in castor seed marketing.

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