

SKILLS REQUIRED BY SECONDARY SCHOOL GRADUATES FOR SUCCESS IN GROUNDNUT PRODUCTION AND MARKETING ENTERPRISE FOR POVERTY ALLEVIATION IN ENUGU STATE

BY

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Abstract

The study examined the skills required by secondary school graduates in Enugu State for success in groundnuts production and marketing enterprise for poverty alleviation. It examined the skills required for planning, site selection, planting and marketing of groundnut. Four research questions in line with the purpose guided the study. The population for the study was 144, comprising of 43 groundnut farmers and 101 extension agents. No sampling was made because the population was manageable. The study area was Enugu State. Enugu State has seventeen (17) local government areas and each local government area is an agricultural zone. The instrument for data collection was a structured questionnaire which contained 41 skill items. Mean was used to answer the research questions, while t test statistic was used to test the null hypothesis at 0.05 level of significance. It was found that the nine (9) identified skills on planning, ten (10) on site selection and land preparation, thirteen (13) on skills for planting and field management and eight (8) on marketing were the skills required for groundnut production by secondary school graduates. The hypothesis test on site selection and land preparation had no significance difference. The hypothesis was not rejected. It was recommended that the identified skills in groundnut production be utilized by teachers to teach students in secondary schools of Enugu State.

INTRODUCTION

Groundnut, *Arachis hypogaea*, also known as monkey-nut, peanut and goober nut, originated from Bolivia, South America. It thrives well in a fairly fertile sand loam and it is a sun-loving crop. Groundnut is grown extensively in Nigeria. Groundnut is a plant which belongs to the family of leguminales and is of agricultural importance because of its ability to provide nitrogen in the soil (11TA 2004 report). According to Low (1992) groundnut are eaten raw, roasted or

pounded for source. The seed is also used to make margarine and cooking oil and the residue which is left after oil extraction may be fed to livestock, (Lan 1992). It is known that best quality nut are used in the confectionary trade. It is used as peanut butter and a highly nutritious food containing about 47% fat and 17% carbohydrate. Echeke and Emeka (2005) notes that the crop after oil extraction is fed to livestock as a good source of protein (groundnut cake) and the part of the plant remaining after harvesting are used extensively as feed stuff (hay) for livestock.

Groundnut may also be cooked, fried and sold locally or hawked as a profitable business. With regard to the potentials and the demand of people, there is need for increase in production of groundnut which only few farmers now engage in recent time.

The knowledge and the techniques to improve on groundnut production can be enhanced by the intervention of some agricultural extension agents. The agricultural extension agents are personnel who are involved in the providing the farmers with the technical advice as a guide to improve their farming methods.

In the view of Ugwoke and Ejiolor (2010), the agricultural extension agents help to educate farmers on the improved techniques of farming. In the context of this study, the extension agents are personnel who help to educate the farmers in the modern techniques in groundnut production.

Production is defined by Anderson and clerk (1998) as the creation of utility and satisfaction for human want that can be paid for. Business, dictionary (2010) defined production as the processes and method employed to transform tangible (raw materials) and semi-finished goods) and intangible input (ideas, information and knowledge) into goods and services. Production in the content of this study is the process and method employed in the planting of groundnut seeds and nature them to maturity and harvested to be consumed and the excesses sold for poverty alleviation

Poverty is a state of being deficient in social and economic needs that makes for good and comfortable living. Akabueze (2002) defined poverty as the state of lacking basic

needs for happy living. It means that if one does not get access to those basic needs that will make him live a comfortable life, the individual is poor and needs sources to alleviate the poverty. Poverty alleviation was expressed by Olaitan, Ali and Onyemaechi (2002) as ways of raising the standard of living of people. Groundnut production can be a viable means of poverty alleviation.

Effectiveness in the production of groundnut or any enterprise and occupation requires that individual acquires the necessary skills. Skill in the opinion of Okorie (2000) is a well-established habit of doing something and it involves the acquisition of performance capabilities. Hank, (1979) explained skill as the ability that comes from knowledge practice and attitude to be able to do something well. In the production of groundnut, skill is the ability to exhibit the knowledge, practice and attitude in growing groundnut starting from site selection to the marketing stage effectively. If the skills in groundnut production are well carried out the enterprise will successful.

In the view of Obayi, (2006), an enterprise is any business organization managed by a person(s) who assumes the responsibility and risk for a business operation with the expectation of making a profit. In the view of Dimelu (2010) an enterprise is any business organization owned by an individual, state, federal or jointly to make turn over in goods and services. Among the objectives of agricultural education at secondary school level is to aid the student acquire basic knowledge and skill in agriculture and to prepare students for occupation in

agriculture (FRN, 2004). These students are taught different area of agriculture, one of such area is crop production of which groundnut is one of the crops. Ejiofor (2010) noted that the teaching or delivery system in secondary school agriculture is the function of a competent teacher. The author stressed that secondary school agriculture does not emphasize field experience as technical skills of production. This may be the reason why most of the secondary school students do not help their parents in farm work. Ifeanyieze (2010) also notes that most of the secondary school graduates of agriculture do not possess saleable skill to compete in the global world.

Secondary school graduates in the view of Onu (2009) are youths who have spent six years in secondary schools. In the context of this study secondary school graduates are youths who have successfully passed from three years junior basic, spent another three years in the senior secondary school and studied agriculture. These youth if not employed will remain idle, and may engage in immoral act or some social vices which may cause problems to the society. It therefore becomes necessary that they are engaged in any business which will improve their economy and keep them busy. It therefore becomes necessary to determine the skill possessed by the teacher of agriculture who are charged with imparting knowledge to their student in secondary schools so that on graduation they can competently produce and market groundnut.

The study therefore determined the skill required by secondary school graduates for entry into groundnut production and marketing. Specifically,

the study identified the skills required by secondary school graduates for:

1. Planning for groundnut production;
2. Site selection and preparation of land for groundnut production;
3. Planting of groundnut and field management; and
4. Marketing of groundnut.

Research Questions

The following research questions guided the study.

1. What are the skills required by secondary school graduates in planing for agriculture product in Enugu state?
2. What are skill required by secondary school graduates for site selection and preparation of land for groundnut production in Enugu state?
3. What are the skills required by secondary school graduates for Planting of groundnut and field management in Enugu state?
4. What are the skills required by secondary school graduates for marketing of groundnut in Enugu state?

Hypothesis

H₀₁ There is no significant difference between the mean perception of extension agents and groundnut farmers on skills required for site selection and preparation of land for groundnut production.

H₀₂??

Research Method

Survey research design was adopted for the study. Survey research design was defined by, Olaitan, Ali, Eyo and Soande (2000) as plan, strategy and structure that the investigator wanted to adopt to obtain solution to research problems using questionnaire in collecting, analyzing and interpreting data. The study was carried out in Enugu State. Enugu State has seventeen (17)

local government areas comprising of seventeen (17) agricultural zones, stratified in the six educational zones. The education zones are; Agbani, Awgu, Enugu, Nsukka, Obollo-Afor, and Udi. The zones has good agricultural environment, especially for the production of groundnut. The population for the study was 144; made up of 101 extension agents and 43 groundnut farmers. The entire population was used for the study because it was manageable.

A 41 questionnaire item, containing skills that were required for groundnut production by secondary school graduates was developed from the literature review and used to collect data from the respondents. Nominal value with response options of highly required (5), averagely required (4), moderately required (3), slightly required (2) and not required (1) were provided for the respondents to place a tick () in the response that best describes the level of skill requirement.

The internal consistency of the instrument was determined using Cronbach Alpha. Alpha value of 0.79 was obtained. Face validation of the instrument was made by three experts, one from Science and computer education and two from Technology and vocational educational from Enugu State University of Science and Technology. One hundred and forty-four copies of the questionnaire were distributed and all were returned. 100% return rate was recorded. This was made possible with the aid of six-research assistance selected from each agricultural zone because of their familiarity with the zones.

Mean was used to answer the research questions while t-test statistics were used to test the null hypothesis at 0.05 level of significance and at the appropriate degree of freedom.

t-test was used because it could be applied for both large and small samples (Uzoagulu 1998). Corresponding mean scores were interpreted using real limit of number based on the grand mean. Any item statement that had mean score of 3.50 and above was regarded as Highly Required (HR), 2.50 – 3.49 was regarded as Moderately Required (MR), 1.50 – 2.49 was regarded as Slightly Required (SR) and 0.50 – 1.49 was regarded as Not Required (NR).

The null hypotheses were accepted if the items have t-cal were equal to or more than 1.98, which is the critical t, at 0.05 level of significant and was rejected if otherwise.

Guide for tables below:

X_1	=	Extension Agents	
	=	101	
df	=	Degree of Freedom	=
	=	142	
X_2	=	Groundnut farmers	43
	=	t-table	= 1.96
X_g	=	Grand Mean	
SD_g	=	Grand Standard Deviation	

Results:

Research Question 1:

What are the skills required in planning for groundnut production?

Table 1: Mean of the respondents on skills required for planning of groundnut by secondary school graduates.

S/N	ITEMS	N=101 Extension Agents		N=43 Groundnut farmers.		X _g	Decision for real limit
		x ₁	SD ₁	X ₂	SD ₂		
	Skills for planning						
1.	Formulate objective for groundnut production.	3.36	0.61	3.17	0.58	3.25	MR
2.	Review the objectives periodically	3.09	0.53	3.15	0.44	3.12	MR
3.	Draw a time table on activities involved.	3.12	0.63	3.34	0.58	3.23	MR
4.	Identify source of labour	3.34	0.62	3.59	0.64	3.46	MR
5.	Identify materials required	3.01	0.74	3.11	0.48	3.06	MR
6.	Identify market outlet for sale.	3.54	0.28	3.59	0.41	3.57	HR
7.	Budget for groundnut	3.57	0.44	3.66	0.47	3.62	HR
8.	Identify source of fund.	3.82	0.22	3.71	0.36	3.76	HR
9.	Keep records of activities involved.	3.11	0.74	3.18	0.91	3.15	MR

Highly Required (HR), Moderately Required (MR), Averagely Required (AR) Slightly Required (SR) and Not Required (NR)

Table 1 revealed that the 9 skills identified for planning for groundnut production were all required by secondary school graduates of Enugu State for entry into groundnut production. The grand means ranged from 3.06-3.73.

Research Question 2:

What are the work skills required by secondary school graduates in site selection and land preparation for groundnut production?

Table 2: Mean scores of respondents on skills required by secondary school graduates for successful site selection and land preparation for groundnut production.

S/N	ITEMS	N=101 Extension Agents		N=43 Groundnut farmers.		X _g	Deci sion for real limit
		x ₁	SD ₁	X ₂	SD ₂		
	Skills for planning						
	Skills on Site selection and land preparation						
1.	Choose a site on a level land	3.64	0.35	3.55	0.41	3.59	HR
2.	Choose a sandy loam soil	3.73	0.65	3.41	0.60	3.57	HR
3.	Perform clearing and stumping activity	3.44	0.78	3.12	0.46	3.28	MR
4.	Collect all vegetation cleared for compost making.	3.70	0.74	3.72	0.68	3.71	HR
5.	Prepare beds or ridges at 80cm apart.	3.56	0.69	3.54	0.72	3.50	HR
6.	Apply light organic manure with prepared compost	3.21	0.96	3.00	0.01	3.11	MR
7.	Mix organic manure with soil	3.93	0.49	3.71	0.52	3.82	HR
8.	Select viable seeds for planting	3.73	0.66	3.48	0.91	3.60	HR
9.	Soak In water to remove the floated seeds and leave over night to quicken germination	3.41	0.47	3.67	0.54	3.54	HR
10	Treat the seed with chemical before planting	3.22	0.67	3.18	0.42	3.20	MR

Highly Required (HR), Moderately Required (MR), Averagely Required (AR) Slightly Required (SR) and Not Required (NR)

The data represented in table 2 revealed that all the ten(10) identified items on skills required for site selection and preparation of land for groundnut production for both extension agents and groundnut farmers had means above which falls within the response category of required. The grand mean ranged from 3.20 – 3.82. This shows that all the items are required for groundnut production by secondary school graduates. Also the SD ranged from 0.35- 0.96 for extension

agents and 0.01-0.91 for groundnut farmers. This shows that the respondents are not too far from the mean and the opinion of one another.

Research Question 3:

What are the skills required in planting and field management involved in groundnut production?

Table 3: Mean scores and standard deviation of respondents on skills required for planting and of groundnut field management.

S/ N	ITEMS	N=101 Extension Agents		N=43 Groundnut farmers.		X _g	Deci- sion for real limit
		x ₁	SD ₁	X ₂	SD ₂		
	Skills for planting and field management	x ₁	SD ₁	X ₂	SD ₂	X _g	
	Skills on Site selection and land preparation						
	Skills for planting and field management	x ₁	SD ₁	X ₂	SD ₂	X _g	
1.	Sow the seed in ridges or beds	3.61	0.67	3.58	0.41	3.60	HR
2.	Plant two seeds per stand	3.90	0.28	3.73	0.70	3.81	HR
3.	Apply fertilizers such as ammonium sulphate.	3.13	0.52	3.95	0.21	3.54	HR
4.	Use ash to control pest or use chemical or by mechanical means.	3.65	0.34	3.34	0.51	3.49	MR
5.	Weed again and support rooting and fruiting with soil.	3.24	0.66	3.68	0.74	3.46	MR
6.	Weed mechanically to avoid fruit damage (hand picking)	3.18	0.79	3.74	0.54	3.46	MR
7.	Identify matured groundnut with yellowing of the leaves	3.56	0.77	3.58	0.64	3.57	HR
8.	Dig a few plants up, to see if the nuts are ready.	3.82	0.82	3.59	0.69	3.71	HR

9.	Dig up the plant carefully to avoid nut breaking off and remaining in the soil	3.45	0.28	3.73	0.26	3.59	HR
10	Check the soil after digging up to collect broken off nuts left in the soil	3.40	0.28	3.82	0.48	3.61	HR
11	Leave the groundnut under the after harvesting	3.72	0.41	3.66	0.66	3.69	HR
12	Keep in a windy dry place	3.91	0.21	3.84	0.30	3.87	HR
13	Remove the pods from the stalk after 2-3 days	3.20	0.29	3.72	0.51	3.46	MR

Highly Required (HR), Moderately Required (MR), Averagely Required (AR) Slightly Required (SR) and Not Required (NR)

Table 3 revealed that all the items had their grand mean scores ranged from 3.46 – 3.87 which falls within responses category of required. This indicated that all the identified skills were required for planting and management of ground field.

Research Question 4:

What are the skills required for marketing of groundnut products.

Table 4: Mean responses from the extension agents and groundnut farmers on skills required for marketing of groundnut products.

S/N	ITEMS	N=101 Extension Agents		N=43 Groundnut farmers.		X _g	Deci sion for real limit
		x ₁	SD ₁	X ₂	SD ₂		
	Skills for planning						
	Skills on Site selection and land preparation						
	Skills for planting and field management	x ₁	SD ₁	X ₂	SD ₂	X _g	
1.	Thresh and winnow the harvested dried nuts	3.64	0.45	3.41	0.66	3.53	HR
2.	Handpick the remaining pods and dirts	3.34	0.81	3.73	0.94	3.54	HR
3.	Spread under the sun to dry	3.84	0.34	3.32	0.77	3.58	HR
4.	Sort out the seeds into broken and unbroken	3.66	0.49	3.59	0.51	3.62	HR
5.	Buy the whole or unbroken seeds	3.54	0.51	3.64	0.67	3.59	HR
6.	Store dried seeds	3.50	0.22	3.79	0.84	3.76	HR
7.	Alert and inform customers to come and buy	3.52	0.41	3.54	0.81	3.53	HR
8.	Take to the market place	3.57	0.74	3.51	0.41	3.54	HR

Highly Required (HR), Moderately Required (MR), Averagely Required (AR) Slightly Required (SR) and Not Required (NR)

Analysis in table 4 revealed that the 8 listed identified skill items for marketing of groundnut products are required by secondary school graduates for successful business enterprise of groundnut. Their grand mean scores ranged from 3.53 – 3.76. The standard deviation for extension agents ranged from 0.22 to 0.81 while that of the groundnut farmers ranged from 0.41 –

0.94. This shows that the respondents are not too far from the mean and from the opinion of one another.

Table 5

A t-test analysis of no significant difference between the mean responses of extension agents and groundnut farmers on skills required for site selection and land preparation for groundnut production.

Groups	N	\bar{X}	SD	df	t-cal	t-crit	Decision
Extension Agents	101	3.60	0.64	142	0.97	1.96	Not
Groundnut Farmers	43	3.46	0.54				Significant

There was no significant difference between the mean responses of the extension agents and groundnut farmers on skills required for site selection and land preparation for groundnut production. The t-cal was 0.97 which is below the t-crit of 1.96 at 0.05 level of significance. The null hypothesis was therefore not rejected.

Result of Findings:

The result of the findings of the study revealed that:

1. The 9 skills identified for planning for groundnut production were required by secondary graduates of Enugu state for groundnut production
2. The 10 skills identified for site selection and land preparation were skills required by secondary school graduates for groundnut production.
3. The 14 identified skills for planting of groundnut were required by secondary school graduates.
4. The 8 skills identified for marketing of groundnut were also required by secondary school graduates.
5. The tested null hypothesis on site selection and field management had

no significant differences and was therefore not rejected.

Discussion of Findings:

The findings of the study with respect to research question one revealed that teachers of agriculture agreed that all the identified skills were required for groundnut production. These skills on planning, site selection and management of groundnut field and marketing. Nine (9) skills on planning for groundnut production including formulation of objective, review of objective, identification of source of income, keeping record and so on.

The study is in line with that of Ifeanyieze (2010) who stated that in planning for capacity building of teachers for effective teaching of mechanization that the objective should be drawn and reviewed periodically, including identifying source of fund for procuring needed equipment. In the study was also in agreement with the study of Ibrahim (2009) in a study he carried out to determine the skills required by secondary graduates in rice production enterprise in kwara state where it was revealed 11 skills were

required for planning for rice production. These include formulation of objectives identifying and so on. The study also revealed that the skills identified in site selection and preparation were in agreement with the opinion of Olaiton and Asogwa (2010) who said that suitable site that is well drained and sand loam should be selected for groundnut production. The result also with the report of Cambodia department of Forestry (2005) and FAO (2009) where the findings revealed that to ensure quality seedlings production, skills in major activities such as choice of suitable site, preparation of the beds/ridges are required by the producers.

The findings regarding research question on planting and management also was in consonance with FAO (2009) where it was revealed that proper spacing of palm seedlings should be maintained. Seed treatment, weeding and pest control is paramount to effective palm tree/fruit production enterprise. The findings on marketing groundnut products were in agreement with the findings of a study conducted by Nebechukwu (2007) on work skills needed by secondary school graduates for marketing of coco-yam. The author found out that 9 skills were also identified for marketing of groundnut products.

The findings from the null hypotheses indicated that there were no significant difference between the mean responses of teachers of agriculture and groundnut production. The null hypotheses were therefore not rejected.

Conclusion:

No nation can survive without a stable agricultural state to sustain her fast growing population. This instigated the

researcher to carry out a study to investigate the skills required by secondary school graduates on groundnut production and marketing in Enugu State. 41 skills in groundnut production were identified. All these skills were required by secondary school graduates for groundnut production and marketing. These skills were 9 in planning 10 in site selection and preparation, 14 in planting and 8 in marketing of groundnut produce. The mastery of these skills in groundnut production will help equip our youths, so that on graduation they will utilize these skills effectively to produce groundnut and earn a living thereby reduce some vice attitudes which would have cropped up as a result of idleness.

Recommendation

That teachers of agriculture emphasized more on practical skills teaching groundnut production in secondary schools so as to make these students to be well equipped and produce groundnut with ease.

2. That teachers of agriculture utilize these identified skills in groundnut production and marketing for teaching students in secondary schools in Enugu to alleviate poverty and raise the standard of living of the people.

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