Training Needs of Coconut Farmers in Delta North Agricultural Zone of Delta State, Nigeria

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Abstract

The objectives of the study examined are; location of farming coconut, areas of training needs of the farmers and ways of enhancing coconut farming in the areas. A multistage sampling technique was used to get data from 90 respondents using questionnaires and schedule interview. On areas of training needs of farmers and ways of enhancing coconut farming, the respondents were provided with a three (3) point Likert type scale responses as: Very Important =3. Important =2 and Not Important =1. With a mean score of ≥ 2.0 to ascertain important areas of training needs and ways of enhancing coconut farming Data collected were analyzed with percentage, mean and standard deviation. Majority of the farmers plant coconut front and back of the house. Top most of the priority of training needs of the respondents are; pest and disease control ($\bar{x}$=3.28), fertilizer application ($\bar{x}$=2.99), processing and preservation ($\bar{x}$=2.99), selection of good species ($\bar{x}$=2.95), Majority indicated government (50%) to organized training and should be done by demonstration method. Provision of good and functioning market ($\bar{x}$=3.44). Construction of good roads ($\bar{x}$=3.11). Labour availability ($\bar{x}$=2.80). Provision of credit facilities ($\bar{x}$=2.73). Provision of subsidy and incentives ($\bar{x}$=2.65) were some of the ways of improving coconut farming in the areas. The study shows that the practice of coconut farming in the study areas is still at the home gardening level. Training and orientation are highly needed in coconut husbandry practices and establishment of coconut plantation in the study areas

Keywords: Training needs, Coconut Farming, Coconut farmers, Delta State

1. Introduction

Training is a source of information and advice that influences the decision making process. It is crucial for capacity building of farmers with the aim of equipping them with relevant skills and knowledge for improved productivity. Training brings knowledge and enhancement of important skills required in performing certain practice in specific crop cultivation. Training in the real sense, is an organized activity aimed at imparting information and instructions to improve the recipients performance as well as help the person attain a required level of knowledge or skill. Training helps in enhancement of knowledge, improvement of skills, interaction with experts and building confidence (Madhusmita and Guru, 2021). Training could also be regarded as an activity leading to skilled behavior and performance improvement (Iwuchukwu *et al*, 2013).

Coconut farming simply refers to the growing of coconut trees for man's use. Coconuts are gotten from coconut trees and are consumed by nearly everyone in the world. Coconut farming is very lucrative cash crop farming any person can ventures into. Coconut trees are grown in northern and southern parts of Nigeria and can adapt to different types of soil and climates. It can withstand bad weather conditions and produce continuously from the age of 4 to about 60 years. Madhusmita and Guru (2021) stated that the skills needed by coconut farmers have to be supplemented with additional skills in order to increase the yield of the nuts.

Coconut is one of the most important and useful palms in the world, with Indonesia, Philippine, India and Sri-Lanka ranking as the world highest producers of coconut. It is sometimes called 'tree of life' due to its importance in small holders' livelihoods direct source of cash income, nutrition and materials. Coconut farming is profitable because coconut has so much industrial application of it products. Some are processed into products that are used industrially or as food. Coconut products are used in industries such as pharmaceuticals, cosmetics, beverages and in preparation of delicacies like chocolates, coconut rice, crepes, candy and so on (Okoroji *et al*, 2020).

Arrays of coconut products are internationally marketed. Emeaghalu (2018) stated that in Nigeria, coconut extracts are processed into production of cosmetics (body creams and lotions), fruits drinks, vinegar, the coir a natural elastic fiber taken from coconut husks can be used to make floor mats, brushes, ropes and strings. In addition, the leaves are used in making brooms, baskets, roofing thatches and temporary sheds and lumbers for building houses and furniture.

At present, the production output of dehusked coconuts in Nigeria is about 267,520 metric tonnes which are used in the production of less than 1500 metric tonnes of coconut oil (Okoroji *et al*, 2020). The Nigeria Bureau of Statistics, NBS (2019) stated that Nigeria coconut oil consumption is about 7000 metric tonnes leaving a supply gap of about 5500 metric tonnes per annum. These necessitated the Federal Government of Nigeria to developed curious interest on the crop with the main target of promoting production, productivity and investment into coconut farming.

Looking at the importance of coconut farming and the possibility of exceeding the current production estimates in Nigeria, it is germane to assess training needs of coconut farmers. In view of the above facts, the study assesses training needs of coconut farmers in Ika south and Ika North Local Government Areas of Delta State, Nigeria. The objectives of the study are: to examined location of farming coconut, areas of training needs of the farmers and ways of enhancing coconut farming in the areas.

2. Materials and Methods

The study was done in Delta north agricultural zone of Delta State, Nigeria. Delta north agricultural zone has Nine (9) Local Government Areas. Two (2) Local Government Areas were purposively selected for the study. They were purposively selected because of their high involvement in coconut production. The two Local Government Areas are Ika South and Ika north-east which are agrarian in nature. The study started September 2022 and ended April 2023. The coconut producers in the LGAs constitute the population for the study. A multistage sampling technique was used in selection of the respondents. First stage was the purposively selection of two (2) communities from the two (2) LGAs that are highly rated in coconut production. This gave a total of four (4) communities for the study. The second stage was the random selection of fifteen (15) coconut farmers from each of the selected communities and that gave a total of ninety (90) respondents that was used as population for the study.

Data were collected from the respondents through the use of questionnaires and scheduled interview. To examine the location of farming coconut, list of possible location for planting coconut was presented to the respondents to tick. Information was collected on farmers' perception on training in the following headings; organizers of training: method of training: trainers: preferred language of training: duration of training and training time. On areas of training needs of farmers and ways of enhancing coconut farming, the respondents were provided with a three (3) point Likert type scale responses as: Very Important =3. Important =2 and Not Important =1. With a mean score of greater than 2.0 to ascertain important areas of training needs and ways of enhancing coconut farming, while a mean score of less than 2.0 was regarded as not important areas of training needs and not important ways of enhancing coconut farming. Data were analyzed using percentage and mean.

3. Results and Discussion

3.1 Location respondents farm coconut

Table 1: the result indicates that 60% and above of the respondents plant coconut at the back of their houses, in front and collectively back and front of the house. 55% of the respondents plant coconut side of the house. 43% of the respondents plant coconut as boundary trees. 40% of them plant coconut at road side. 16% had coconut nursery and 12% of the respondents intercropped coconut with other plants. From the above coconut farmers planting information and pattern, it established that the practice of coconut farming in the study areas is still at the home gardening level, where they consume their produce with sales of excess produce. Uzokwe *et al*, (2016) reported that the produce from home gardening are consumed and the surplus sold to generate income and the income are used to purchase what the people cannot produce. Therefore, there is need to carryout orientation and training of people in the study areas on coconut plantation establishment

Table 1: Location respondents plant coconut

Location respondents plant coconut	Percentage (n=90)	Rank
Back of the house	62	1
Front of the house	61	2
Front and back of the house	60	3
Side of the house	55	4
Boundaries of the land	43	5
Road side	40	6
Coconut nursery	16	7
Intercropped	12	8
Coconut plantation	0	9

Field survey, 2023. Multiple choices

3.2 Areas of training needs of coconut farmers

Table 2: the result shows very important areas of training needs include; pest and disease control ($\bar{x}$=3.28), fertilizer application ($\bar{x}$=2.99), processing and preservation ($\bar{x}$=2.99), selection of good species ($\bar{x}$=2.95), land/site selection ($\bar{x}$=2.87), pruning techniques ($\bar{x}$=2.40), soil management and conservation ($\bar{x}$=2.30), spacing ($\bar{x}$=2.18) and establishment of coconut plantation ($\bar{x}$=2.18). It therefore implies that training in these areas will enhance their knowledge and understanding of coconut farming and enable them have good yield of coconut as well as maximize the benefits of the products. This work is in agreement with the affirmation of Madhusmita and Guru (2021), who opined that the skills needed by coconut farmers have to be supplemented with additional skills in order to increase the yield of the nuts. As shown in table 2: nursery management ($\bar{x}$=1.36) and planting time ($\bar{x}$=1.45) are not important areas of training needs to the respondents. The implication is that respondents has good knowledge and understanding of when to plant coconut in the nursery and at field which they usually done as soon as raining season begins. Attending training programmes on coconut practices are extremely important and essential for them in the study areas. Topmost of the priority of training needs for the respondents are pest and disease control, processing and preservation and fertilizer

application, which was in tandem with Chaminda (2016) who reported that the most desirable training needs are pest management practices followed by fertilizer application practices in the coconut triangle of Sri Lanka
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Table 2: Areas of training needs of coconut farmers

Training needs areas of respondents	Very important F (%)	Important F (%)	Not Important F (%)	Mean $\bar{x}$	Standard Deviation
Pest and disease control	70 (77.8)	20 (22.2)	.	3.28	0.99
Processing and preservation	28 (31.1)	50 (55.6)	12 (13.3)	2.99	1.06
Fertilizer application	50 (55.6)	28 (31.1)	12 (13.3)	2.99	1.06
Selection of good species	68 (75.6)	12 (13.3)	10 (11.1)	2.95	1.17
Land /site selection	54 (60)	30 (33.3)	6 (6.7)	2.87	1.16
Pruning technique	31 (34.4)	50 (55.6)	9 (10)	2-40	1.09
Soil management and conservation	47 (52.2)	32 (35.6)	11 (12.2)	2.30	1.07
Establishing plantation	20 (22.2)	46 (51.1)	24 (26.7)	2.18	1.04
Spacing	20 (22.2)	46 (51.1)	24 (26.7)	2.18	1.04
Planting time	8 (8.8)	32 (35.6)	50 (55.6)	1.45	0.75
Nursery management	7 (7.8)	31 (34.4)	52 (57.8)	1.36	0.74

Field survey, 2023.

3.3 Respondents' perception on training

Table 3: as shown in the table, the respondents' perception on training, the respondents indicated that on methods of training, they preferred demonstration (45%) or group methods (34%). On organizing training, the respondents indicated government (50%) to be the one organizing the training. With regards to trainers, the respondents indicated researchers (45%) to be the trainers or resource personnel during training. On training language, majority of the respondents preferred training language to be pidgin English (37%) or local language (30%). Language of training determines the effectiveness of the communication between the trainer and the trainees. Ighoro *et al*, (2022) reported that farmers preferred training language to be pidgin English or local language during agricultural training. On training duration, majority of the respondents indicated 2 days training (35%) or 3 days training(34%) and time of training, majority of the respondents indicated they preferred to be trained April – June. This will enable them practice what they learnt in training and doubles as their best time of planting coconut during the year. Madhusmita and Guru (2021), stated that April to June are suitable training time opted by farmers and with regards to duration of training, 2 days are the ideal duration farmers mostly opted due to non availability of labourers farmers always get engaged in one or other farming activities. This is the obvious reason they preferred short training duration.

Table 3: Respondents' perception on training

Method of training	Percentage (n=90)
	5
Formal training	35
Demonstration	14
Mass media	10
Workshop	34
Group	2
individual	
Organizers of training	
Research institute	10
Extension agent	20
NGO	5
Community	5
Government	50
Trainers	
Lecturers	15
Extension agents	28
Researchers	41
Teachers	10
Clergy	6
Preferred language of training	
English	13
Pidgin English	37
Local Language	30
All of the above	20
Training Duration	
1 day	14
2 days	35
3 days	34
4 days	10
5 days	7
Time of training	
January – March	22
April – June	52
July – September	17
October - December	9

Source: Field Survey, 2023.

3.4 Ways of improving coconut production

Table 4: the result as shown in the table below can be deduced that all the variables were understood by the respondents as very important ways of improving coconut farming in the areas. Some of these very important strategies as pointed out by the respondents were; provision of good and functioning market ($\bar{x}$=3.44). Construction of good roads ($\bar{x}$=3.11). Labour availability ($\bar{x}$=2.80). Provision of good micro credit

facilities ($\bar{x}$=2.73). Provision of subsidy and incentives ($\bar{x}$=2.65). Stable government policy and programme in agriculture ($\bar{x}$=2.53). Formation of coconut farmers union ($\bar{x}$=2.33). Establishment of coconut plantation and research ($\bar{x}$=2.17) and increase extension visitation ($\bar{x}$=2.17). When these factors are in place in agrarian community, coconut farming and agricultural production will be drastically enhanced. The findings are in collaboration with the report of Iwuchukwu *et al*, (2013) who opined that current policy directions in agriculture that emphasize on extending public private partnerships in service and input delivery, strengthening association of farmers, demand for advisory services, tackling gaps and failures in private marketing systems will improve agricultural production.

Table 4: strategies for improving coconut production

Variables	Very important F %	Important F %	Not Important F %	mean$\bar{x}$	Standard Deviation
Provision of good and functioning market	63 (70)	17 (18.9)	10 (11.1)	3.44	0.85
Construction of good roads	60 (66.7)	20 (22.2)	10 (11.1)	3.11	1.04
Labour availability	55 (61.1)	25 (27.8)	20 (22.2)	2.80	1.11
Provision of good micro credit facilities	45 (50)	30 (33.3)	15 (16.7)	2.73	1.41
Provision of subsidy and incentives	15 (16.7)	55 (61.1)	20 (22.2)	2.65	0.90
Stable government policy and programme in agriculture	40 (44.4)	30 (33.3)	20 (22.2)	2.53	1.02
Formation of coconut farmers union	34 (37.8)	46(51.1)	10 (11.1)	2.33	1.18
Establishing coconut plantation and research	12 (13.3)	42 (46.7)	36 (40)	2.17	1.09
Increase extension visitation	12 (13.3)	42 (46.7)	36 (40)	2.17	1.09

Field Survey, 2023.

4. Conclusion and Recommendation

The practice of coconut farming in the study areas is still at the home gardening level, training and orientation are highly needed in coconut husbandry practices and establishment of coconut plantation in the study areas. Topmost of the priority of training needs for the respondents are pest and disease control, fertilizer application, processing and preservation. It is recommended that infrastructural facilities that boost coconut farming activities should be provided by governments, corporate bodies and able personalities to boost coconut farming and productivity in the zone and entire Delta State of Nigeria.

5. References

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