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COMPETENCY-CAPACITY BUILDING NEEDS OF OKRA FARMERS FOR COMMERCIAL PRODUCTION AND INCOME ENHANCEMENT IN ENUGU STATE

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Abstract

This study focused on determining the competency capacity building needs of okra farmers for commercial production to enhance their income in Enugu State. Three research questions guided the study. The study adopted survey research design. It was carried out in Enugu state. The population for the study was 249 okra farmers. The entire population was involved in the study. A 41-cluster competency item questionnaire was used for data collection. The instrument was validated by three experts. Split-half technique and Pearson product moment correlation method was used to determine the internal consistency of the instrument. A reliability coefficient of 0.81 was obtained. Two hundred and forty-nine copies of the instrument were administered on the respondents by the researchers. Two hundred and forty-three copies were retrieved and analyzed using mean and improvement needed index (INI) to answer the research questions. It was found out that okra farmers needed capacity building in competencies in planning, pre-planting, planting, post-planting and post harvesting operations. It was recommended, among others, that the identified competencies be packaged and used by extension officers to retrain okra farmers for success in commercial production and income enhancement.

Keywords: Competency, Capacity, Enhancement, Income, Farmer, Commercial Production.

1. INTRODUCTION

Okra, *Abelmuschus esculentum*, is a vegetable annual herbaceous crop. It originated in tropical Africa. Bridaine (1989) explained that okra plant has an erect hairy stem that turns very fibrous with age. The leaves have long petioles. They are broad, hairy and cordate. The large showy flowers are produced single on the leave axils. The pods, the author affirmed, are light green in colour. Uguru (1996) said that the pods are hairy, farrowed and split easily along the sutures at full maturity and dryness under the slightest pressure. The mature seeds are roundish and are either green or black in colour. Iwena (2008) observed that okra fruit are capsule; when young, are harvested with knife and used in soup preparation. The leaves and immature fruits are eaten as vegetable. The very fragrant fruit, the author advised, should be eaten before the seeds become hard, since these are very nutritious when they are under-ripe. Sylvia (2009) confirmed that immature pods are used for making soup in tropical Africa. The author noted that the pod contains vitamin A, B and C and some vital minerals. A muscilage preparation from the immature pods is used medicinally as plasma replacer. Jaakko (2009) asserted that fibrous stems are utilized in paper and textile industries. The mature seeds contain about 20-25% edible oil. In Enugu state, okra is produced by farmers and consumed because of some of the importance listed above.

2. LITERATURE REVIEW:

A farmer, in the view of Quirk (1995) is a person who owns or manages an area of land and the building on it used for growing crops or rearing animals. Olaitan (2005) defined a farmer as a person who grows crops and rears animals for the benefit of mankind. Okra farmers, in the context of this study, are those individuals who grow okra for man's benefit. Most of these farmers produce okra mainly for family consumption, having just little quantity for sale. The income of okra farmers can be enhanced if they embark on commercial production. Commercial, in the statement of Hornby (2003) involves business activities that are intended to making a profit. Iwena (2008) stressed

that commercial in agriculture is concerned with the production of either crops or animals in large quantity for sale and profit making. In this study, commercial refers to the production of okra in large quantity mainly to supply to the market for sale and profit making.

Production, in the opinion of Jhingan in Uko (2003) is the rationale combination of various input resources in order to create a stipulated output. In the context of this study, production is the combination of input resources to obtain okra fruit as an output. Erebor (1995) categorized activities in okra production to include preplanting, planting, post-planting and post-harvesting operations. Okra farmers engage in the above operation to obtain okra fruit as an output. They need to engage in commercial production to meet with the high demand of okra in the market and enhance their income. But for the okra farmers to be able to produce okra in large quantity for sale and profit maximization, they need to be competent.

Competency, in the explanation of Olaitan and Ali (1997), is the successful performance of a task through the use of knowledge, skill, attitudes and judgment. According to the authors, it can be referred to as the state of being functionally adequate in the performance of one's duty. In this study, competency is the knowledge, skills and attitude needed by okra farmers to produce in large quantity for sale and enhancement of their income.

In Enugu state, the researchers observed that okra production is low to meet the demand in the market. As a result, the majority of the okra marketers import okra from other states of the nation especially northern states. This indicates that okra has market and that commercial production can lead to sustainable income generation among the farmers. It was reveal that the level of competence possess by the okra farmers is a key factor in determining their interest in commercial production. The farmers appear not to have been well exposed to the rudimentary training in okra production. This situation may have continued to discourage them from undertaking commercial okra production. Nevertheless, the majority of the okra farmers have shown the potential and most tendencies to expand into large scale production if their training needs are substantially satisfied and their interests well motivated in the occupation. To be successful in commercial production, the okra farmers need capacity building.

Capacity building, in the opinion of Olaitan, Alaribe and Ellah (2009) is effort geared towards improving an individual's level of knowledge, skills and attitudes essential in carrying out a given task. In references to this study, capacity building is the effort made towards improving the level of knowledge, skills and attitudes possessed by okra farmers to enable them produce in large quantity to maximize profit and enhance their income.

3. PURPOSE OF THE STUDY:

The purpose of this study is to determine the competency-capacity building needs of okra farmers for commercial production to enhance their income in Enugu state. Specifically, the study sought to determine the competency-capacity building needs of okra farmers in:

a. Planning for commercial production

b. Pre-planting and planting operations of okra production.

c. Post-planting and post harvesting operations of okra production.

4. METHODOLOGY

Three research questions guided the study. Survey research design was adopted for this study. Olaitan, Ali, Eyo and Sowande (2000) stated that survey research design is the plan, structure and strategy that the investigators wants to adopt in order to obtain solutions to research problems using questionnaire in collecting, analyzing and interpreting the data. Questionnaire was developed and used for collecting data from respondents. The study was carried out in Enugu state made up of the three agriculture zones: Awgu, Enugu and Nsukka. The population for the study was 249 registered (Enugu State Agricultural Development Project, ENADEP 2010) okra farmers. The entire population was involved for the study because the size was small. A 41-cluster competency item questionnaire was developed from literature reviewed and used for data collection. The questionnaire was divided into two categories of competencies needed and competencies performed. The needed category had a four-point response scale of highly needed (4), averagely needed (3)**,** slightly needed **(2)** and not needed **(**1), while the performance category had a 4-point response scale of high performance (HP); average performance (AP), low-performance (LP) and no performance (NP), with a corresponding value of 4,3,2, and 1 respectively. Three experts validated the instrument, two from Department of Vocational Teacher Education and one from Department of Crop Science, University of Nigeria, Nsukka. Their corrections and suggestions were used to produce the final copy of the questionnaire. Split-half technique and Pearson product moment correlation method were adopted to determine the internal consistency

of the instrument. A reliability coefficient of 0.83 was obtained. Three research assistants who were familiar with the area of the study were hired and given orientation on how to administer the questionnaire to the respondents. Two hundred and forty-nine copies of the questionnaire were administered to the okra farmers. Two hundred and forty-three copies of the questionnaire were retrieved and analyzed using weighted means and Improvement Need Index (INI) to answer the research question. To determine the capacity building needs of okra farmers, the following steps were taken.

1. The weighted mean of each item under the needed category (NC) was calculated.
2. The weighted mean of each item under the performance category (PC) was calculated.
3. The difference between the two weighted means represented performance gap (PG) which indicated the level of capacity of the farmers(**-** **=** PG) was calculated.

Inference from the calculation was as follows:

a. Where the performance gap (PG) equals zero (0), for each item, the farmers needed no capacity building because the level at which the competency item was needed was equal to the level at which the farmers could perform the competency item.
b. Where the difference (PG) was negative (-) for each item the farmers needed no capacity building because the level at which the competency item was needed was lower than the level at which the farmer could perform the competency item.
c. Where the difference (PG) was positive (+) for each item, the farmer needed capacity building because the level at which the competency item was needed was higher than the level at which the farmer could perform the competency item.

5. RESEARCH QUESTIONS

The following research questions guided the study

1. What were the competencies in planning for commercial production where okra farmers needed capacity building?
2. What were the competencies in preplanting and planting operations where okra farmers needed capacity building?
3. What were the competencies in post-planting and post-harvesting operations where okra farmers needed capacity building?

6. RESULTS

The results of the study were obtained from the research questions answered through the data collected. The data for answering research questions are presented in tables below:

Table 1: Performance Gap Analysis of Mean Ratings of the Responses of okra farmers on the competencies in planning for commercial production where okra farmers needed capacity building.

N = 243

S/N	Item statements			(-) PG	Remarks
1	Formulate specific objective for commercial okra production	3.19	2.14	1.05	CBN
2	Review the objectives periodically to meet business situation.	2.84	2.36	0.48	CBN
3	Decide on the location of the okra farm.	3.68	2.98	0.70	CBN
4	Draw up programme to cover different stages of okra production.	3.16	2.13	1.03	CBN
5	Identify relevant personnel to assist in the okra production.	3.73	2.51	1.16	CBN
6	Identify other relevant inputs required for the production.	3.11	2.47	0.64	CBN
7	Identify market outlet for okra fruit.	2.78	2.19	0.59	CBN
8	Identify sources of fund for the production	3.60	3.10	0.50	CBN
9	Identify relevant records to keep.	2.69	2.01	0.68	CBN
10	Make budget for the production.	3.89	2.35	1.54	CBN

= mean of needed, **=** mean of performance, PG = Performance Gap, N = number of respondents. CBN = Capacity Building Needed.

The data in table 1 revealed that the performance gap values of all the ten (10) items ranged from 0.48 – 1.54 and were positive. This indicated that okra farmers needed capacity building in all the ten competency items in planning for commercial production.

Table 2: Performance Gap Analysis of Mean Ratings of the Responses of okra farmers on the competencies in pre-planting operations where they needed capacity building.

N = 243

S/N	Item statements Pre-planting operation			(-) PG	Remarks
1	Acquire an area of land with a well drained and fertile soil. - Demarcate the boundaries of the land	3.21	2.47	0.74	CBN
2		3.42	2.40	1.02	CBN
3	Survey the area of the land	3.65	2.31	1.34	CBN
4	Clear the land of existing vegetation	2.97	2.73	0.24	CBN
5	Remove the stumps of trees on the land gather debris and burn. Divide the land area into plots	3.75	3.60	0.15	CBN
6	Spread manure on the area of land	3.57	2.37	1.20	CBN
7		3.45	2.11	1.34	
8	Till the ground to specification (ridge/bed) **Planting operation**	3.87	3.42	0.43	CBN
9	Measure out 60cm between rows and 45cm within rows. Determine the correct time for planting	3.43	2.37	1.06	CBN
10		3.44	2.32	1.12	CBN
11	Measure out 3cm deep for planting okra seeds.	3.77	2.97	0.80	CBN
12	Select only healthy and large seeds for planting Carryout viability test for the seeds	3.49	2.21	1.28	CBN
13		3.02	2.24	0.78	CBN
14	Treat selected okra seeds with a fungicide before planting.	3.53	2.27	1.26	CBN
15	Soak treated okra seed for 24 hours before planting.	3.00	2.74	0.26	CBN
16	Sow 3 – 4 okra seeds per hole on the raised ridge/bed.	3.68	3.16	0.52	CBN

= mean of needed, **=** mean of performance, PG = Performance Gap, N = number of respondents. CBN = Capacity Building Needed.

The data in table 2 revealed that the performance gap values of all the sixteen (16) items ranged from 0.24 – 1.34 and were positive. This indicated that okra farmers needed capacity – building in all the sixteen competency items in pre-plating and planting operations of okra in Enugu state.

Table 3: Performance Gap Analysis of mean ratings of the responses of okra farmers on the competencies in post-planting and post-harvesting operations where they needed capacity building.

N = 243

S/N	Item statements Post-planting operation			(-) PG	Remarks
1	Mulch the land to conserve moisture in the soil.	3.71	2.76	0.95	CBN
2	Thin the seedlings to required number of stands.	2.87	2.53	0.34	CBN
3	Supply seeds where necessary.	2.94	2.33	0.61	CBN
4	Weed the farm regularly	3.79	3.66	0.13	CBN
5	Apply manure to the soil to increase nutrients for the crop.	3.66	2.23	1.43	CBN
6	Control pests and diseases of the crop through appropriate	3.71	2.52	1.19	CBN

	methods.				
7	Check the pod for maturity	3.19	2.14	1.05	CBN
8	Harvest when mature	3.68	2.98	0.70	CBN
	Post-harvesting operation				
9	Bag the harvested fruit	3.90	2.10	1.80	CBN
10	Fix prices for each bag.	3.36	3.01	0.35	CBN
11	Store fresh harvested fruit (bagged) in a cool place	3.78	3.48	0.30	CBN
12	Advertise the fruit immediately for sale	2.74	2.33	0.41	CBN
13	Sell to buyers at the site or in the market.	3.21	2.55	0.66	CBN
14	Keep appropriate record of sales.	3.88	2.49	1.19	CBN
15	Calculate the expenditure and income to determine profit.	3.61	2.77	0.87	CBN

= mean of needed, **=** mean of performance, PG = Performance Gap, N = number of respondents. CBN = Capacity Building Needed.

The data in table 3 revealed that the performance gap values of all the fifteen (15) items ranged from 0.13 – 1.80 and were positive. This indicated that okra farmers needed capacity – building in all the fifteen competency items in post harvesting operation of okra in Enugu state.

7. DISCUSSION OF THE RESULTS

The results of the study revealed that okra farmers in the area of the study needed capacity building in ten (10) competency items in Planning, 16 competency items in preplanting and planting operations, 15 competency items in post planting and post harvesting operations of okra production in Enugu state. The findings of this study were in conformity with the findings of Olaitan, Alaribe and Elleh (2009), in a study carried out on capacity building needs of palm oil and kernel marketers for enhancing economic returns from oil palm industry in South Eastern Nigeria, where it was found out that palm oil and kernel marketers needed capacity building in skills in planning, reprocessing and marketing of palm oil and kernel products.

The findings of this study were in consonance with the findings of Ukonze, Eze and Olaitan (2010) in a study on capacity building of teachers in safety practices in farm workshops in colleges of agriculture in south eastern, Nigeria, where it was found out that teachers of agriculture needed capacity building in safety practices in cutting tools, digging and carrying tools, implement and equipment for effective teaching in college of Agriculture.

The findings were also in agreement with the findings of Olaitan, Asogwa and Asonzu (2010) on a study carried out on professional skills capacity building needs of teachers of Agriculture for effective teaching of vegetable production to students in colleges of Education in south east Nigeria, where it was found out that teachers of agriculture needed capacity building in planning, implementing and evaluating instruction and nursery, pre-planting, planting, post-planting and post harvesting operation for effective teaching of vegetable production to the students.

The findings of the authors cited above helped to validate the findings of this study.

8. CONCLUSION

It was observed that the okra farmers in Enugu state do not produce enough to meet with the demand in the market and enhance their income. This could be attributed to the level of competencies possessed by the farmers in okra production. This study found out that okra farmers in Enugu state needed competency capacity building in pre-planting, planting, post-planting and post-harvesting operations in okra production.

9. RECOMMENDATION

Based on the findings of the study, the following recommendations were made:

1. The identified competencies should be used by the extension agents to retrain okra farmers for success in commercial okra production.
2. The identified competencies should be utilized by skill acquisition centres to train secondary school graduates or retirees and those who may be interested in commercial okra production.
3. Teachers of agriculture in secondary schools should use the identified competencies to teach their students step-by-step process of okra production.

REFERENCES

Bridaine, O.M (1989) *African Gardens and Orchards: Growing Vegetables and Fruits.* London: Macmillian Publishers.
Enugu State Agricultural Development Project (ENADEP 2010) *List of Registered Okra Farmers in Enugu State.*
Erebor, C. (1995) *Comprehensive Agricultural Science for Senior Secondary Schools.* Onitsha: Johnson Publishing Ltd.
Hornby, A.S. (2001) *Oxford Advanced Learner's Dictionary of Current English.* London: Oxford University Press.
Iwena A.O (2008) *Essential Agricultural Science for Senior Secondary Schools.* Ogun State. Tonad Publishers Limited.
Olaitan, S.O, Asogwa, V.C. and Asouzu I.A. (2010*) Professional skills Capacity Building Needs of Teacher of Agriculture for Effective Teaching of Vegetable production to students in College of Education in South East Nigeria.* A paper presented at the Annual Conference of Nigeria Vocational Association. (NVA 2010), University of Nigeria, Nsukka.
Olaitan, S.O. and Ali, A (1997) *The Making of Curriculum (Theory Process, Product and Evaluation).* Onitsha: Cape Publishers Int Ltd.
Olaitan, S.O., Alaribe, M.O. and Ellah B.I. (2009) *Capacity Building Needs of Palm Oil and Kernel marketers for Enhancing Economic Returns from Oil Palm industry in South Eastern Nigeria.* A paper presented to the Annual Conference of Nigerian Vocational Association (NVA 2009).
Quirk, L. (1995) *Longman Dictionary of Contemporary English.* Spain: Longman Group Ltd.
Uguru, M.I. (1996) *Crop Production: Tool, Techniques and Practice.* Nsukka: Fulladu Publishing Company.
Uko, E.O. (2003) *Development of Job entry level skills in poultry production for students in Senior Secondary Schools in Akwa Ibom State.* Unpublished M.Ed Thesis, Department of Vocational Teachers Education, University of Nigeria, Nsukka.
Ukonze, J.A; Eze, S.O. and Olaitan, S.O. (2010). *Capacity Building Needs of Teachers in Safety Practices in Farm Workshops in Colleges of Agriculture in South Eastern Nigeria.* Curriculum Organization of Nigeria Journal. Vol 17 No. 3 (2010).
Yerkes, D (1994) *Webster's Encyclopedia Unabridged Dictionary.* New York: Dilittuim Press Ltd.