TRAINING NEEDS OF WOMEN FARMERS FOR IMPROVED INCOME GENERATION: A CASE STUDY OF VEGETABLE FARMERS IN LAPAI LOCAL GOVERNMENT AREA, NIGER STATE, NIGERIA.

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ABSTRACT

The study was carried out in Lapai Local Government Area of Niger State, Nigeria. The specific objectives were to examine women's roles in vegetable production, to ascertain the areas in which they required training and to determine their average annual income generated from vegetable production. A total of 150 women vegetable farmers were purposively selected from six randomly selected villages (Gbage=15, Gupo/Atsu=30, Nassarawa=25, Ebbo=25, Gulu=30 and Takuti=25). The instrument for data collection was subjected to Validity and Reliability tests (r= 0.89). Data were obtained from respondents through Interview Schedule and analyzed using descriptive and Inferential statistics. Findings showed that almost 80% of the respondents were 45 years and below, married (72.7%), while only 45.3% of them had formal education. Most of the women vegetable farmers (86.7%) cultivated less than 0.5 ha of land. A total of eight areas in which training was required were identified and ranked from the most to the least; Marketing (92%), Nursery management and transplanting (70%), Packaging (60.7%), Optimal planting method(51.3%), Harvesting method (36.7%) and different preservative methods (26.7%). Furthermore, almost two-thirds of them generated =N=100,000 and below annually. Chi square results showed significant relationships between age of the respondents and some of the training needs (Marketing; x^2=28.96, Preservative methods; x^2=31.37, Chemical weeding; x^2=8.37 and Seeds preparation/preservation: x^2=6.90). Also, there were significant relationships between educational attainment and some of the training needs (Preservative methods; x^2= 16.11, Harvesting methods;x^2 =1.54, Chemical weeding;x^2=11.44, Optimal planting method:x^2=27.3, Seeds preparation/preservation; x^2=11.04 and Nursery management and transplanting: x^2=16.3). Chi-square further revealed a significant relationship between average annual income and two of the training needs (Preservative methods; x^2=4.04 and Harvesting methods; x^2=6.94). It could be concluded that women vegetable farmers required different technical training programmes to enhance their productivity and income- generation. Therefore, efforts should be made by all stakeholders such as State Agricultural Development Project and Fadama Development Programme in providing relevant training programmes to women vegetable farmers that could improve their incomes.

Key words: Poverty alleviation, training needs, income generation, marketing and vegetables

INTRODUCTION

Vegetable crops are of great importance in human diet because they are rich sources of essential vitamins. However, due to the highly perishable nature of the crops, there is an urgent need to expand their marketing with a view to reducing wastages and increasing income generation. Moreover, the multi-phase effect of both the nutritive and economic value is quite immense and serves as a tool in enhancing the natural well being and income of the farmers (FAO, 1990).

Many varieties of vegetables are grown in Nigeria and they are categorized into salad, leafy, legumes, root, Cole crops and bulb vegetables.

These vegetables are prone to losses at every stage, from production to consumption, and this has necessitated researches into post-harvest handling technologies.

The adoption of new technology and conventional practices must be carefully considered to meet local needs, while educational programmes must be aimed at the farmers and all those directly and indirectly involved in vegetable marketing because each of these groups has a role to play and each must be considered in any effort to reduce post-harvest losses (Bourne, 1977)

The role of women in farming are extensive and multi-faceted, though concentrated around the home because of their household chores coupled with cultural and religious reasons.

Activities of women include cultivation of crops, livestock production, post-harvest activities and marketing (Oladele and Adekanye, 1990).

High perishability of vegetables, lack of storage, mechanical injury due to improper handling ,transportation and microbial infection are major causes of post-harvest losses in vegetables. Shama (1987) reported that post-harvest loss in vegetables could be as high as 43 percent and the average loss was estimated at 26 percent (Khan, 1991), while insects and diseases accounted for 25 and 15 percent of vegetables crop loss respectively.

In terms of economic importance, vegetables tend to serve as revenue for some families in the villages and even in the urban areas. It also serves as a source of income to a larger number of farmers, that is , it gives a higher return in terms of yield per hectare than field crops and can also be exported to increase foreign exchange.

Apart from the nutritive value of vegetables, their cultivation also provides job

opportunities. In Nigeria, marketing of vegetables across the nation have provided many people with job opportunities. This in its effects, had considerably improve self employment.

Moreover, cash earning from vegetables are sometimes used by the farmers to meet household needs and for purchasing farm inputs for the production of other crops (Serrano, 1994). However, women who perform about three-quarters of the post-harvest operations are still relegated to the background in terms of training opportunities (Seberg, 1990).

Moreover, agricultural training services do not attach much importance to reaching women farmers. Policy makers and administrators typically assume that men are the farmers, while women only play a supportive role as farmers' wives. Prior to the realization that rural women constitute an economically active population, they were largely not considered productive because they usually worked as unpaid family labour.

Therefore, to improve the standard of living of the rural household for enhanced food security and income generation, there is need for educational empowerment of women through training in vegetable production. (Olawoye, 1998).

Tanko (1994) posited that women have been described as the invaluable workforce and the acknowledged backbone of the family and the national economy.

This description was based on analysis of their contributions to the growth of the Nigerian economy as a whole. It was further stated that activities of both male and female are distinct but complementary, and the extent of women participation varies from one society to another as it is defined by the existing gender relations dictated by different cultural norms and values associated with types of activities being preferred by the women. The behavioural function of an individual is often determined by his or her needs.

A person may be motivated to a higher extent in a work and training situation, if a job and training satisfy his or her immediate needs. Real educational needs has reference to specific understanding, attitudes and skills that are lacking but required for attainment of a more or desirable situation (Laogun,2002).

In order to assess the training needs of women vegetable farmers in terms of knowledge, skill and accessing agricultural resources, this study has the following specific objectives;

(i) to examine the socio-economic and personal characteristics of the women vegetable Farmers,

(ii) to determine women's roles in vegetable production,

(iii) to ascertain the areas in which training is required and

(iv) to determine the average annual income generated from vegetable production

Hypotheses

1. There is no significant relationship between socio-economic characteristics (age and educational level) and the training needs of women vegetable farmers.

2. There is no significant relationship between average annual income generated by women vegetable farmers and their training needs.

Methodology

The study was carried out in Niger State during the raining season. Purposive sampling technique was used to select Lapai LGA and women vegetable farmers as respondents. A total of 150 women vegetable farmers were purposively selected from 6 different randomly selected villages (Gbage=15, Gupo/Atsu=30, Nassarawa=25, Ebbo=25, Gulu=30 and Takuti=25). The instrument for data collection was subjected to validity and reliability tests (r=0.89).

Data were obtained from the respondents through Interview Schedule. Level of training need was measured on 3-point Likert rating scale (VeryHigh=3, High =2 and Low=1). Data were analysed using descriptive (frequency, percentages and means) and inferential statistics (Chi-square)

Results and discussion

Socio-economic characteristics of women vegetable farmers

The characteristics considered in this study include age, educational attainment and marital status. About 80 percent of the women vegetable farmers were 45 years old and below as shown in Table 1. This suggests that most of these women were young, strong and agile enough to be involved in income generating activities such as vegetable farming. Eboh (1993) stated that within this age group, women are likely to have grown up children and suggests that such women must be engaged in income generating activities like vegetable production to boost family economic needs.

Age group (years)	Frequency	Percentage
Above 55	9	6.0
46-55	22	14.7
36-45	36	24.0
26-35	48	32.0
25 and below	35	23.3
Total	150	100.0
Marital status		
Single	40	26.7
Married	109	72.7
No response	1	0.7
Total	150	100.0
Highest educational attainment		
Post-secondary school	17	11.3
Secondary	29	19.3
Primary	22	14.7
Non-formal education	6	4.0
None	76	50.7
Total	150	100.0

Source: Field Survey, 2006

Also, majority of the participating women (72.7%) were married and this might be connected with the need to increase household income and food security for family members.

Moreover, less than one-half of the women vegetable farmers had formal education which might have positive effect on learning and adoption of improved technologies in vegetable production.

Low level of education may be an obstacle to the adoption of innovations on storage and preservation in reducing losses.

Aina (1990) argues that experience rather than education helps the women vegetable farmers in the managerial ability though education enables individual to gain knowledge and skill thereby increasing their power of understanding.

Role of women in vegetable production.

In this regard two factors were considered; hectarage of land cultivated and their levels of labour contribution to the farm operations.

Table 2 shows that most of the women cultivated less than 0.5 hectare of land. Studies have shown that most cultures excluded women from land inheritance and ownership, and this might have accounted for unequal access to land.

Moreover, the findings in this study also revealed that women and family labour (67.4%) were mostly used in the vegetable farms.

According to Adegeye (1985), women's legal and cultural status affect the degree of control women have over production resources as they have inequitable access to labour and credits when compared with their male counterparts.

Income generation from vegetable production

Findings in Table 2 show that 64.7% of the women generated average of =N=100,000 and below per annum, while 35.3% of them generated more than =N=100,000 annually. Vegetables serve as sources of incomes for some farmers and a larger number of people because these give higher return in terms of yields per hectare (Oluwole, 1997)

Table 2: Distribution of respondents based on size of land cultivated, sources of farm labour and annual income generated (n=150)

Variables	Frequency	Percentage
Cultivated land (ha)		
0.5-1ha	20	13.3
Less than 0.5ha	130	86.7
Total	150	100.0
Labour used		
Self only	40	26.7
Hired labour	8	5.3
Self and hired labour	22	14.7
Family labour only	61	40.7
Family and hired labour	19	12.7
Total	150	100.0
Annual income generated		
N100,000 and above	53	35.3
Below N100,000	97	64.7
Total	150	100.0

Source: Field Survey, 2006

Training needs of women vegetable farmers.

Training is seen as a process of education for providing the individuals with genuine professional competence. Its end product is the development of innate leadership and managerial ability, intellectual understanding of the substance, technical know-how of the management profession and the ability to apply that understanding to specific management situations, Ekpere (1990).

Table 3 shows that a total of eight training needs of women vegetable farmers were identified and the distribution of the respondents was presented in ranked order. Furthermore, it was revealed that the women required different training needs. The most important one was in the area of vegetable marketing (92%). This is closely followed by training in the use of chemicals for weeding vegetable farms (82%) and nursery management and transplanting in vegetable production (74.7%). The need to be trained on preservative methods ranked the least (26.7%). This corroborates the attitudes of most farmers in selling their goods immediately, especially at the peak of harvest so as to have cash. This could be as a result of the high poverty levels of the rural women farmers. However, if farmers could be encouraged to learn some basics processing and preservative method in vegetables, their incomes will not only be enhanced but they would have their incomes being spread over the years, especially after harvesting periods.

Table 3: Distribution of women vegetable farmers based on their training needs

Areas of training needed	Yes	No	Rank
Marketing	138(92%)	12(8%)	1st
Chemical weeding	123(82%)	27(18%)	2nd
Nursery management/transplanting	112(74.7%)	38(25.3%)	3rd
Seeds preparation/preservation	105(70%)	45(30%)	4th
Packaging methods	91(60.7%)	59(39.3%)	5th
Optimal planting method	77(51.3%)	73(48.7%)	6th
Methods of harvesting	55(36.72%)	95(63.3%)	7th
Preservative methods	40(26.7%)	110(73.3%)	8th

*Multiple responses

Source: Field Survey, 2006

Tested Hypotheses

Based on the Chi-Square tests (Table 4) , the results showed significant relationships between age and some of the training needs (Marketing:x^2=28.96 ;Preservative methods : x^2= 31.37; Chemical weeding:x^2=8.37 and Seed preparation/preservation:x^2=6.90).

Moreover, there were also significant relationships between highest educational attainment and selected training needs of the women vegetable farmers (Preservative methods:x^2=16.11,P<0.05; Harvesting methods:x^2=1.84; Chemical weeding: x^2=11.44; Optimal planting methods: x^2=27.3;Seeds preparation /preservation: x^2=11.04 and Nursery management/transplanting: x^2=16.3,P<0.05).

The findings further revealed significant relationships between average annual incomes generated from vegetable production and two of their training needs (Preservative methods:x^2=4.04 and Harvesting methods:x^2=6.49).

Table 4: Results of tested hypotheses

Variables	^{2}-value	df	P-value	Decision
Age*Marketing	31.37	3	P<0.05	Significant
Age*Chemical weeding	8.37	3	P<0.05	Significant
Age*Seeds preparation/ Preservation	6.90	3	P<0.05	
Educ.*Preservative mtds	16.11	3	P<0.05	Significant
Educ.*Harvesting mtds.	1.84	3	P<0.05	Significant
Educ.*Chem. Weeding	11.44	3	P<0.05	Significant
Educ.*Optimal planting mtds.	27.3	3	P<0.05	Significant
Educ.*Seeds preparation/ Preservation	11.04	3	P<0.05	Significant
Educ. *Nursery mgt./ Transplanting	16.3	3	P<0.05	Significant
Income*Preservative mtds.	4.04	3	P<0.05	Significant
Income*Harvesting mtds.	16.3	3	P<0.05	Significant

5% significant level

Source: Data analysis

Conclusion

It could be concluded that women vegetable farmers required different technical training to enhance productivity and household incomes.

Therefore, it is recommended that efforts should be made by all stakeholders such as governmental and non-governmental organizations, private establishments and individuals in providing relevant training programmes that could improve vegetable production, processing, preservation and marketing with a view to improving women's income generation and household food security.

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