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Training Manual Needs of Lecturers in Turkey Production in Colleges of Education in North-East, Nigeria

Mba, R.[1]*, Agbulu, O. N.[2], and Ekele, G. E.[2]

[1]Department of Agricultural Economics and Extension, Federal University Wukari, Taraba State, Nigeria.
[2]Department of Vocational Agriculture and Technology Education, Joseph SarwuanTarka University Makurdi, Benue State, Nigeria.

Corresponding Author E-mail: rashmba17@gmail.com

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ABSTRACT: The study was on Training Manual Needs of Lecturers in Turkey Production in Colleges of Education in North-East, Nigeria. Five specific objectives guided the study while five research questions were answered and five corresponding null hypotheses were formulated and tested at 0.05 level of significance. The study adopted instrumentation research design and was conducted in North-East, Nigeria. The population for the study was 454 made up of 105 Registered Turkey Farmers and 349 Agricultural Extension Agents. The sample size for the study was 213 made up of 105 Registered Turkey Farmers and 108 Agricultural Extension Agents and was determined using Taro Yamane formula. The instrument for data collection was a structured questionnaire titled: Training Manual Needs of Lecturers in Turkey Production Questionnaire (TMNLTPQ) with 49 structured items statement. The instrument was subjected to face and content validation by five experts. The validated instrument was trial-tested on 30 respondents, comprising 15 Registered Turkey Farmers and 15 Agricultural Extension Agents in Benue State in North-central, Nigeria. The score obtained from trial-test was subjected to reliability test using Cronbach Alpha method, which yielded reliability coefficient of 0.93. The researcher with the help of six research assistants administered 213 copies of the questionnaire and retrieved all of them for analysis. Data collected was analyzed using mean and standard deviation to answered research questions and t-test statistics to test the null hypotheses at 0.05 level of significance. The findings of the study revealed that nine objectives of turkey production manual were relevant for lecturers and forty contents of turkey production manual were appropriate for lecturers. The study further revealed that there is no significant difference in the mean ratings of the responses of respondents on relevance of the objectives of turkey production manual and there was however, statistical significant difference in the mean ratings of the responses of respondents on appropriateness of the contents of turkey production manual. It was recommended among other that: Agricultural Education Lecturers should be encouraged to use the relevant objectives and appropriate contents in the manual as a guide for effective instructional delivery and the developed manual should be made available to Agricultural Education Lecturers by school administrators for utilization in teaching and learning of turkey production.

Keywords: Training manual, lecturers, Turkey production

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INTRODUCTION

Turkey *meleagris gallopavo* belong to the family *meleagrididae.* Its consumption in North-East, Nigeria is increasing with the increase in human population. However, it is observed that only few graduates are engaged in turkey production as an occupation. Turkey production as defined by Akinbobola (2021), is the process of raising turkey for the purpose of producing meat or eggs for food or money, and stated that turkey production has been in practice for many years, and offers an alternative solution to the increasing demand for turkey and turkey products. Wesley (2017), also viewed turkey production as the raising of turkey for subsistence or commercial purpose, primarily for meats and eggs. In the context of this study, turkey production is all activities

that the turkey farmers (those involved turkey production) are involved from breeding to marketing of turkey.

Turkey is of value to people of North-East and beyond; it supplies people with food nutrient such as protein; it is of economic importance because it is sold to generate income that is used by the farmers to meet their needs. Turkey could also be used to improve dietary formula of animal feeds. The values associated with the production of turkey can be made possible through the development of training manual for lecturers in turkey production, as they are mainly involved in imparting knowledge to the students, whom will later be the graduates to teach either in primary or secondary schools. This will enable them acquire necessary skills needed for turkey production and provide them with the avenue to be self-employed and self-reliant and even employers of labour.

Production, according to Ewubare (2020), is viewed as all those activities which cover physical and mental efforts that satisfy human need. In relation to this study, turkey production includes all activities from breeding to marketing. Production of turkey is suitable in North- East, Nigeria because of the availability of materials needed for the formulation of feed, construction of house, good health facilities as well as market for the sale of the turkey. In order to accomplish this task, there is need for the development of appropriate training manual. Development according to Osinem (2008) is the articulation of the necessary skills or activities that would assist trainers to teach learners to master the objectives of the training.

Development as it relates to turkey production curriculum, is the act of designing and producing a product, especially training materials using relevant skills of operation (Uduma, 2014). The developed training manual in turkey production will guide the lecturers to teach students on turkey production in order to produce turkey for generation of wealth for economic survival and that of their family and be able to run a farm enterprise.
This farm enterprise is a vital resource for students training skills development and skills proficiency testing.

A farm enterprise according to Kelechi (2013), is any farm activity (or identifiable sector of the farm business) for which there are specific returns. A turkey enterprise is an occupational area in turkey production comprising many activities that a learner is required to perform before he can be gainfully employed in the turkey enterprise. The several areas of turkey production where learners can seek knowledge and skills to enable him run enterprises include: breeding, housing, feeding, health management and marketing.

For someone to be skilled in an enterprise, he must be trained. James and Robinson (2017), viewed skill training as the exposure given to a learners by lecturer to make him perform more expertly on the Job by using his knowledge effectively and readily in the execution of his performance.

A lecturer is someone who teaches at a University or college for the purpose of a study. A lecturer in the opinion of Olafare (2017) is a person who gives lectures, a specialist by profession or connection with teaching duties, sometimes used as academic title for one who teaches at college or university but does not have the rank or tenure of the regular faculty member. A lecturer is an expert in his special area of knowledge and has good foundation in pre-services training and a continuous update of knowledge and skill through relevant improvement programme. Omotayo et al. (2022), stated that a lecturer in College of Education is someone who works in a job that needs special education or training. Lecturers in Colleges of Education in the context of this study are those people that acquired special training in the area of pedagogy and subject matter such as turkey production which enable them impact knowledge and skills in turkey production. This requires continuous update of knowledge to the students of Colleges of Education. It deems necessary because graduates of Colleges of Education either teach in primary or secondary schools where students require knowledge on turkey production to make them self-employed or gain job in turkey enterprises. A lecturer in the context of this study is an individual with a minimum of Master Degree in Agricultural Education that has been professionally trained in an act of teaching and lecturing in College of Education.

Colleges of Education are tertiary educational institution established to give professional training for the production of highly qualified classroom teachers. Colleges of Education are specially designed to develop, pursue and improve regular and liberal courses of study for the training of various categories of teachers and promote the advancement of learning; and educational research (Onuma and Ada, 2016). At the end of the study in Colleges of Education, Nigeria Certificate in Education (NCE) or Bachelor's Degree in Education is awarded to the graduates. Graduates are persons who have successfully completed their course of study in a well organize institution and awarded with a certificate (Lawal, 2014). Graduates in the context of this study are unemployed NCE holders who poses rudimentary skills in turkey production, which are grossly inadequate for establishing them successfully in the turkey enterprise. These graduates therefore require professional skills in order to be successful in turkey enterprise, while the lecturers require some skills in developed training manual in turkey production to enable them empower students through instruction which demand driven skills in turkey production.

Training manual is a book or booklet of instructions, used to improve the quality of a performed task. With the manual approach, the total curriculum of a particular field

is divided into units known as 'modules' (Lawal, 2014). The author also opined that module is an organized package of information that includes elements such as objectives, contents, assignment or activities and assessment. The typical training module is designed to enable students move through the content linearly. A training module in the view of Lawal (2014), is a unit of curriculum based on the development of entry level competencies of students. The author stated that in a training manual design, the students and their occupational goals forms the bases for programme planning. The modules are of equal length that will take approximately specific hours of instructional time to achieve by the average group of students. A training module in this study is a unit of instruction with a cluster of skills in an aspect of turkey production required by the lecturers to impart turkey production skills to the students in Colleges of Education in North- East, Nigeria.

Statement of the problem

Despite all efforts in spending huge amount of money by the government in establishing Colleges of Education in the North-East, Nigeria, and as well sponsoring lecturers to acquire necessary skills needed to meet the human resource base for technological advancement, but it seems these lecturers are still not performing well in imparting skills, knowledge and attitudes in turkey production to the students of this institutions. An observation by the researcher revealed that graduates of primary and secondary schools who are taught by Agricultural Education graduates of Colleges of Education are supposed to be self-reliant or be employed in turkey enterprise, but are engaged in some social vices such as terrorism, kidnapping, raping, armed-robbery, prostitution among others for survival. According to Maclean and Lai (2011), the curricular of Technical and Vocational Education (TVE), has not equipped graduates of Colleges of Education with requisite skills needed in turkey production. These triggered the researchers interest to develop a training manual in turkey production that can be used to upgrade the competency-based of Lecturers in Colleges of Education in North-East, Nigeria.

Objectives of the Study

The purpose of the study was to determine the training manual needs of lecturers in turkey production in Colleges of Education in North-East, Nigeria.

Specifically, the study sought to:

1. Ascertain the relevance of the objectives of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria.
2. Identify appropriate contents of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria.

Research questions

The following research questions were raised and answered by the study

1. How relevant are the objectives of turkey production module for lecturers in Colleges of Education in North-East, Nigeria?
2. What is the appropriateness of the contents of turkey production module for lecturers in Colleges of Education in North-East, Nigeria?

Statement of Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant difference in the mean ratings of the responses of Registered Turkey farmer and Agricultural Extension Agents on relevance of the objectives of Turkey production manual for lecturers in Colleges of Education in North-East, Nigeria.
2. There is no significant difference in the mean ratings of the responses of Registered Turkey farmer and Agricultural Extension Agents on appropriateness of the contents of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria.

METHODOLOGY

Design of the Study

The study adopted instrumentation research design. The design was considered appropriate for this study because its main concern is development of instrument and methods to be used in teaching and learning.

Area of the study

The study was conducted in North-East, Nigeria, which comprises Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe State. The area was chosen because it is conducive for turkey production. The area is blessed with abundant sources of turkey's feed, average temperature for normal growth and development, coupled with high rate of unemployment and security challenges.

Population for the Study

The population for this study is 454, comprising 105 Registered Turkey Farmers and 349 Agricultural Extension

Agents from all the states in North- East, Nigeria. These states are Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe.

Sample and sampling techniques

Simple random sampling technique was used to get the sample size of 213 using Taro Yamane's formula, which consist of 108 Agricultural Extension Agents and all the 105 Registered Turkey Farmers were used because of their manageable size.

Instrument for data collection

The instrument for data collection is a-49 items structured questionnaire titled: Training Manual Needsof Lecturers in Turkey Production Questionnaire (TMNLTPQ). The questionnaire was developed by the researcher through an extensive literature review based on the research questions. The questionnaire is made up of two parts, part "A" which covered demographic information of the respondents and part "B" collected information to answer the research questions and test the null hypotheses at 0.05 level of significance. However, part "B" is divided into two clusters (1 and 2). Cluster 1 covered the objectives of turkey production manual with 9 items. Cluster 2 covered contents of turkey production manual which was sub-divided into 8 sections which include: Breeding (6 items), hatching (4 items), turkey house construction (5 items), turkey house management (4 items), feeding (5 items), health management (7 items), marketing of poults (3 items) and marketing of turkey (6 items), making a total of 40 items. The instrument TMNLTPQ requires the respondents to rate each of the items on a four-point rating scale of Highly Relevant (HR=4), Averagely Relevant (AR=3), Slightly Relevant (SR=2) and Not Relevant (NR=1) for cluster 1. In Cluster 2, the respondents to rate each of the items on a four-point rating scale of Highly Appropriate (HA=4), Averagely Appropriate (AA=3), Slightly Appropriate (SA=2) and Not Appropriate (NA=1).

Validation of the Instrument

The instrument for data collection was validated by five experts, two in the Department of Agricultural Education, one in the Department of Animal Health and Production, one in the Department of Educational Foundations and General Studies, Joseph SarwuanTarka University, Makurdi, and one in the Department of Animal Production and Health, Federal University Wukari, Taraba State. Their comments and corrections suggested were effected to improve the quality of the questionnaire both in structure and contents.

Reliability of the Instrument

The reliability of the instrument was established using Cronbach Alpha formula to determine the internal consistency of the instrument. The instrument was administered to 30 respondents comprising 15 Registered Turkey Farmers and 15 Agricultural Extension Agents in Benue State in North-Central, Nigeria. The information obtained from the responses to the instruments was analyzed using the Cronbach Alpha formula which yielded coefficient of 0.93.This indicates high internal consistency of the instrument. Benue state was chosen for the reliability test because of its proximity and similar characteristics with the study area in terms of agricultural participation, specifically poultry production.

Method of data collection

The research instruments were administered to the respondents by the researcher with the help of six research assistants, whom were given orientation on the method of administration of instrument. The six research assistants worked with the researcher; each one represented a State in the administration. The researcher and research assistants personally administered 213 copies of the questionnaire to the respondents, and they responded on-the-spot, and the copies of the questionnaire were retrieved for analysis.

Method of data analysis

The data collected was analyzed using mean and standard deviation for answering research questions and t-test for testing the null hypotheses at 0.05 level of significance. In taking decision about a research question, any item with a mean rating of 2.50 and above was regarded as either Relevant or Appropriate. On the other hand, any item with a mean rating below 2.50 was regarded as either irrelevant or Inappropriate. In testing the null hypotheses using t-test, where the t-calculated is less than t-tabulated, the null hypothesis was rejected but otherwise, the hypothesis was not rejected

RESULTS

The results of the study are presented according to research questions answered and the supporting hypotheses as tested.

Research Question 1

How relevant are the objectives of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria?

Table 1 revealed that all the 9 items on the relevance of the objectives of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria had their grand mean values ranged from 3.13 to 3.77, which was above the cut-off point of mean 2.50 on a four point scale. This implies thatthe objectives of turkey production manual are relevant for lecturers in Colleges of Education in North-East, Nigeria.The standard deviation of all the 9 items ranged from 0.42 to 0.85, indicating that there was less variability in the opinion of the respondents on the relevance of the objectives of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria.

Hypothesis 1

There is no significant difference in the mean ratings of the responses of Registered Turkey farmer and Agricultural Extension Agents on relevance of the objectives of Turkey production module for lecturers in Colleges of Education in North-East, Nigeria. Table 2 presents t-test analysis of the mean ratings of respondents on relevance of the objectives of Turkey production manual for lecturers in Colleges of Education in North-East, Nigeria at $p > 0.05$. Table 2 shows a p-value of 0.240 which is greater than the alpha value 0.05 at 211 degrees of freedom ($0.240 > 0.05$). This implies that the test is not significant hence, there is no statistical significant difference in the mean ratings of the responses of the respondents on relevance of the objectives of Turkey production manual for lecturers in Colleges of Education in North-East, Nigeria. Therefore, the null hypothesis was not rejected.

Research question 2

What is the appropriateness of the contents of turkey production module for lecturers in Colleges of Education in North-East, Nigeria?

Data in (Table 3) revealed that all the 40 items on the appropriateness of the contents of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria had their grand mean values ranged from 3.10 to 3.68, which was above the cut-off point of mean 2.50 on a four point scale. This implies that the contents of turkey production manual are appropriate for lecturers in Colleges of Education in North-East, Nigeria. The standard deviation of all the 40 items ranged from 0.51 to 0.86, indicating that there was less variability in the opinion of the respondents on the appropriateness of the contents of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria.

Hypothesis 2

There is no significant difference in the mean ratings of the responses of Registered Turkey farmer and Agricultural Extension Agents on appropriateness of the contents of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria. Table 4 presents t-test analysis of the mean ratings of respondents on appropriateness of the contents of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria at $p < 0.05$. The Table shows a p-value of 0.014 which is less than the alpha value 0.05 at 211 degrees of freedom ($0.014 < 0.05$). This implies that the test is significant hence, there is statistical significant difference in the mean ratings of the responses of Registered Turkey farmer and Agricultural Extension Agents on appropriateness of the contents of turkey production manual for lecturers in Colleges of Education in North-East, Nigeria. Therefore, the null hypothesis was rejected.

DISCUSSION

The findings of the study in (Table 1) revealed that nine objectives of Turkey production manual are relevant for lecturers in Colleges of Education in North-East, Nigeria. The objectives were: Explain the basic skills involved in breeding and hatching of turkey, Prepare appropriate site to be used for breeding and hatching of turkey, Identify appropriate equipment's/materials used for turkey production, Outline qualified personnel turkey production, Explain how the basic structure and components of turkey house should be constructed, Describe how turkey houses should be maintained, Explain the basic skills required for feeding turkey, Describe the skills required for health management in turkey production and Outline the skills in marketing of turkey. The result from the corresponding hypothesis on (Table 2) shows that there was no statistical significant difference in the mean ratings of the responses of respondents on relevance of the objectives of Turkey production manual for lecturers in Colleges of Education in North-East, Nigeria. This finding agrees with Akaa (2017), who found out that, farmers needed ten objectives for poultry feed formulation manual. Asogwa et al. (2017), also found that colleges of agriculture required thirteen objectives of snake farming for integration into their curriculum of animal production in South East Nigeria. Similarly, The finding is also in conformity with the findings of Mahajan and Singh (2017), who found that instructional objectives are indicators of success of any academic programme since they give a clear idea of what can be achieved by enrolling in a particular programme and hence should be explicitly stated before the commencement of such programme. The results of the study on (Table 3) revealed that all the forty contents of Turkey production manual are appropriate for lecturers in Colleges of

Table 1: Mean Ratings of Respondents on Relevance of the Objectives of Turkey Production Manual (N=213: 105 Registered Turkey Farmers & 108 Agricultural Extension Agents).

S/N	Objectives of Turkey Production Module	$\bar{X}_1$	SD_1	$\bar{X}_2$	SD_2	$\bar{X}_g$	SD_g	Remarks
1.	Explain the basic skills involved in breeding and hatching of turkey	3.82	0.38	3.71	0.45	3.77	0.42	Relevant
2.	Prepare appropriate site to be used for breeding and hatching of turkey	3.73	0.44	3.67	0.49	3.70	0.47	Relevant
3.	Identify appropriate equipment's/materials used for turkey production	3.71	0.45	3.69	0.48	3.70	0.46	Relevant
4.	Outline qualified personnel turkey production	3.74	0.48	3.69	0.46	3.72	0.47	Relevant
5.	Explain how the basic structure and components of turkey house should be constructed	3.62	0.56	3.63	0.55	3.62	0.56	Relevant
6.	Describe how turkey houses should be maintained	2.95	0.80	3.31	0.87	3.13	0.85	Relevant
7.	Explain the basic skills required for feeding turkey	3.40	0.67	3.57	0.56	3.49	0.63	Relevant
8.	Describe the skills required for health management in turkey production	3.36	0.84	3.52	0.80	3.44	0.83	Relevant
9.	Outline the skills in marketing of turkey	3.50	0.69	3.55	0.58	3.53	0.64	Relevant
	Cluster Mean and Standard Deviation	3.54	0.59	3.59	0.58	3.57	0.59	Relevant

N=Number of Respondents, $\bar{X}_1$= Mean of Registered Turkey Farmers, SD_1= Standard Deviation of Registered Turkey Farmers, $\bar{X}_2$= Mean of Agricultural Extension Agents, SD_2 = Standard Deviation of Agricultural Extension Agents,,$\bar{X}_g$= Grand Mean of Respondents SD_g = Grand Standard Deviation of Respondents

Table 2: t-test Analysis of Mean Ratings of Respondents on Registered Turkey Farmers and Agricultural Extension Agents on Relevance of the Objectives of Turkey Production Manual.

Status	N	Mean	Std.	Std. Error Mean	Df	Sig.	t-cal	Alpha Value	Remark
Turkey Farmers	105	3.5366	0.59000	0.030194					
Agric Extension Agents	108	3.5933	0.58222	0.029245	211	0.240	-0.7058	0.05	NS, NR

N= Number of respondents, Std = Standard deviation, df = degree of freedom, Sig. = P-value; t-cal = t-calculated value; P >.05, NS = Not significant, NR =Not rejected.

Table 3: Mean ratings of respondents on appropriateness of the contents of turkey production manual (N=213: 105 Registered Turkey Farmers & 108 Agricultural Extension Agents.

S/N	Breeding		$\bar{X}_1$	SD_1	$\bar{X}_2$	SD_2	$\bar{X}_g$	SD_g	Remarks
1.	Identify appropriate site to be used for breeding.	3.55	0.60	3.57	0.63	3.56	0.62	Appropriate	
2.	Identify appropriate equipment's/facilities to be used for breeding.	3.45	0.59	3.48	0.59	3.46	0.59	Appropriate	
3.	Identify breeding species with high growth rate.	3.09	0.83	3.36	0.77	3.23	0.81	Appropriate	
4.	Identify breeding species that can adapt to the environment.	3.34	0.62	3.36	0.60	3.35	0.61	Appropriate	
5.	Identify health breeding species.	3.41	0.67	3.36	0.70	3.38	0.69	Appropriate	
6.	Select breeding species that can reproduce fast.	3.59	0.53	3.54	0.62	3.56	0.58	Appropriate	
	Hatching								
7.	Use undamaged and clean eggs for incubation in artificial hatching.	3.63	0.54	3.69	0.49	3.66	0.51	Appropriate	
8.	Write the date on which eggs are collected to help remember how long the eggs can be stored at most.	3.44	0.63	3.55	0.67	3.49	0.65	Appropriate	
9.	Incubate the eggs at a temperature between 30 to 32^{o}c.	3.45	0.59	3.49	0.57	3.47	0.58	Appropriate	
10.	Turn eggs regularly to maintain steady temperature.	3.50	0.54	3.48	0.59	3.49	0.56	Appropriate	
	Turkey House Construction								
11.	Survey the land to be used for turkey house construction.	3.68	0.51	3.59	0.53	3.63	0.52	Appropriate	
12.	Clear the vegetation of the land.	3.68	0.47	3.63	0.54	3.65	0.51	Appropriate	
13.	Pack out the cleared rubbish.	3.49	0.65	3.43	0.67	3.46	0.66	Appropriate	
14.	Plant trees around the house so that it roofs stay under the shade to reduce direct penetration of sunlight.	3.67	0.51	3.60	0.58	3.63	0.55	Appropriate	
15.	Wires net the house to prevent snakes and hawks from harming the turkey.	3.62	0.54	3.56	0.66	3.59	0.60	Appropriate	
	Turkey House Management								
16.	Indulge in good sanitation practices.	3.41	0.61	3.54	0.70	3.47	0.66	Appropriate	
17.	Limits visitors to the turkey house in prevent disease occurrence and spreading.	3.43	0.59	3.47	0.54	3.45	0.56	Appropriate	
18.	Disinfect feed sacks and equipment's to destroy disease causing organisms.	3.48	0.57	3.26	0.73	3.37	0.66	Appropriate	
19.	Dispose dead birds, preferably by burning to reduce disease occurrence and spread.	3.57	0.57	3.30	0.75	3.43	0.68	Appropriate	
	Feeding in Turkey Production								
20.	Provide clean feeders	3.42	0.68	3.44	0.58	3.43	0.63	Appropriate	
21.	Provide clean drinkers	3.09	0.87	3.12	0.81	3.10	0.83	Appropriate	
22.	Provide a balanced diet for the turkey.	3.42	0.76	3.06	0.85	3.24	0.82	Appropriate	
23.	Use clean water always.	3.54	0.54	3.45	0.63	3.50	0.59	Appropriate	
24.	Supply high energy feed.	3.47	0.55	3.32	0.73	3.39	0.65	Appropriate	

Education in North-East, Nigeria. The content area are: *Breeding* (Identify appropriate site to be used for breeding, Identify appropriate equipment's/facilities to be used for breeding, Identify breeding species with high growth rate, Identify breeding species that can adapt to the environment, Identify health breeding species, Select breeding species that can reproduce fast), *Hatching(* Use undamaged and clean eggs for incubation in artificial hatching, Write the date on which eggs are collected to help remember how long the eggs can be stored at most,

Health Management in Turkey Production								
25.	Indulge in good sanitation.	3.38	0.67	3.52	0.73	3.45	0.70	Appropriate
26.	Use medicated feeds	3.58	0.53	3.13	0.98	3.35	0.82	Appropriate
27.	Adopt adequate vaccination programme.	3.45	0.60	3.44	0.65	3.45	0.62	Appropriate
28.	Treat identify disease	2.98	0.93	3.22	0.78	3.10	0.86	Appropriate
29.	Immunize turkeys.	3.16	0.84	3.40	0.65	3.28	0.76	Appropriate
30	Control pest of turkey.	3.69	0.47	3.48	0.62	3.58	0.56	Appropriate
31.	Keep adequate records of management diagnosis and treatment.	3.67	0.49	3.69	0.55	3.68	0.52	Appropriate
	Marketing of Poults							
32.	Carryout a market survey for cost of poults.	3.54	0.54	3.65	0.48	3.60	0.51	Appropriate
33.	Advertise the poults for sale.	3.24	0.85	3.51	0.73	3.38	0.80	Appropriate
34.	Keep sales records.	3.66	0.52	3.51	0.70	3.58	0.62	Appropriate
	Marketing of Turkey							
35.	Carryout market survey for cost of turkey.	3.67	0.49	3.57	0.60	3.62	0.55	Appropriate
36.	Grade turkey for market according to weight.	3.58	0.62	3.33	0.72	3.46	0.68	Appropriate
37.	Fix price of turkey.	3.43	0.60	3.16	0.76	3.29	0.70	Appropriate
38.	Advertise the turkey.	3.38	0.67	3.13	0.71	3.25	0.70	Appropriate
39.	Transport turkey to market point.	3.45	0.62	3.18	0.67	3.31	0.66	Appropriate
40.	Keep sale record.	3.50	0.56	3.42	0.66	3.46	0.61	Appropriate
	Cluster Mean and Standard Deviation	3.47	0.61	3.42	0.66	3.45	0.64	Appropriate

N=Number of Respondents, $\bar{X}_1$= Mean of Registered Turkey Farmers, SD_1= Standard Deviation of Registered Turkey Farmers, $\bar{X}_2$= Mean of Agricultural Extension Agents, SD_2 = Standard Deviation of Agricultural Extension Agents, $\bar{X}_g$= Grand Mean of Respondents SD_g = Grand Standard Deviation of Respondents.

Table 4: t-test Analysis of Mean Ratings of Respondents on Registered Turkey Farmers and Agricultural Extension Agents on Appropriateness of the Content of Turkey Production Manual.

Status	N	Mean	Std.	Std. Error Mean	df	Sig.	t-cal	Alpha Value	Remark
Turkey Farmers	105	3.5003	0.60619	0.075498					
Agric Extension Agents	108	3.4050	0.67065	0.092520	211	0.014	2.467	0.05	S, R

N= Number of respondents, Std = Standard deviation, df = degree of freedom, Sig. = P-value; t-cal = t-calculated value; P >.05, S = significant, R = rejected.

Incubate the eggs at a temperature between 30 to 32^{o}c, Turn eggs regularly to maintain steady temperature,), *House construction* (Survey the land to be used for turkey house construction, Clear the vegetation of the land, Uproot tree stumps, Pack out the cleared rubbish, Plant trees around the house so that it roofs stay under the shade to reduce direct penetration of sunlight, wires net the house to prevent snake and hawk from harming them), *Turkey house management* (Indulge in good sanitation practices, Limits visitors to the turkey house in prevent disease occurrence and spreading, Thoroughly clean the interior of the house on regular basics, disinfect feed sacks and equipment's to destroy disease causing organisms, Dispose dead birds), *Feeding of Turkey* (Provide clean feeders, Provide clean drinkers, Provide a balanced diet for the turkey, Use clean water always, Supply high energy feed), *Health Management* (Indulge in sanitation, Use medicated feeds, adopt adequate vaccination programme, treat identify disease, immunize Turkeys, control pest of Turkey and keep adequate record), *Marketing of Poults(*Carryout a market survey, advertise the poult for sale and keep sales records) and *Marketing of Turkey(*Carryout market survey for cost of Turkey, grade Turkey for market according to weight, fix price of Turkey, advertise the Turkey, Transport Turkey to market point and keep sale record). The findings from the corresponding hypothesis on (Table 4) shows that there was however statistical significant difference in the mean ratings of the responses of respondents on appropriateness of the contents of Turkey production manual for lecturers in Colleges of Education in North-East, Nigeria. This disparity was because the Registered Turkey farmers rated the items higher than their counterpart. This could be attributed to their occupational experiences on the production of Turkey over the years. The findings also in agrees with Duru (2014) who revealed that appropriate content of climate change curriculum in science education include; the earth's atmosphere, the earth's weather and climate, the sun and radiant energy and impact of global warming and climate change.

This imply that for teaching and learning of Turkey production to be effective, the content of the manual must contain appropriate and relevant learning experiences that should be planned in such a way that exposure of the learners to the learning experience could cause a relatively permanent change in them.

Conclusion

It is the anticipation of the society and curriculum, that Agricultural education graduates should be able to demonstrate practical productive skills both in crop and

animal production. This is because agriculture is a vocation that requires the development of both the cognitive, affective and particularly pycho-motor skills in potential farmers (students). To achieve the above, the instructional objectives and curriculum content need to be developed. The development process revealed that nine objectives of Turkey production manual were relevant and forty contents of Turkey production manual were appropriate. From the findings of this study, it is clear that the implementation of enriched curriculum by lecturers in Nigeria is indispensable if the needed human resources to put Nigeria in the world map for social, scientific, cultural and technological advancement are to be evolved and sustained.

Recommendations

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

1. Agricultural education lecturers should be encouraged to use the relevant objectives and appropriate contents in the manual as a guide for effective instructional delivery.
2. The developed module should be made available to Agricultural education lecturers by school administrators for utilization in teaching and learning of Turkey production
3. There is need for the administrators of Colleges of Education, Ministry of Education at the Federal levels in conjunction with National Commission for Colleges of Education to monitor the implementation of the curriculum of agricultural Education in order to ensure that only correct and appropriate content presented by this study is implemented by agricultural education lecturers in training students on Turkey production.

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