

## Skills Needed by Secondary School Graduates for Breeding and Rearing of Giant African Land Snail (GALS) in Ebonyi State

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### Abstracts

The Purpose of the study is to identify the skills required by secondary school Graduates for breeding and rearing Giant African Land Snail (GALS) in Ebonyi State. Three research questions guided the study. The design was descriptive survey. The total population was 254 agricultural science Teachers in junior and senior secondary schools in Ebonyi State. PRS, (2014). A random sampling techniques was used by balloting and replacement to collect sample size of one hundred and fifty four (154) Agricultural Science Teachers in the study area. Structural questionnaire was developed by the researchers for data collection. The instrument has four point rating scale of strongly required, required, not required and very Not required (SR, R, NR, VNR) .The instrument was validated by three experts one in measurement and evaluation in the department of science education and two in Technology and Vocational Education (Agric Education) unit in the same Faculty of Education in Ebonyi State University, Abakaliki. Mean and standard deviation was used for answering research questions. Any item with mean score of 2.50 and above are regarded as required skills while mean score below 2.50 are regarded as not required skills. The study revealed that all the item statements had mean score of 2.50 and above. It implied that the identified skills were good enough for snail breeding and rearing by secondary schools Graduate. It show that skills in housing, in feeding, in routine management and disease control are the bases for breeding and rearing of Giant African Land Snail GALS. Among the recommendations made was that, improved stocks, housing material, feeding stuff and financial assistant should be given to the secondary school graduated by the government. While technical assistant from experienced rural snail farmers and agricultural science teachers should be given to secondary school graduate for snail breeding and rearing as young farmers.

**Keywords:** Skill, Breeding, Rearing, GALS, Graduates and School.

### Introduction

Giant African Land Snail (GALS) is the largest species of land Snail. It is normally found in forest Areas, under natural environment in many part of Nigeria. It likes dark and cold area and stay away from harsh weather. The snail feed on many plant leaves, waste materials from kitchen. The meat of Giant African land Snails are known for their high protein content. The snail shells are used for decorating environment. Its shell can be grinded and mix with other food stuff for formulating feeds for livestock. Since snail, is a good sources of calcium, snail are demanded by many people in Ebonyi State and Nigeria in general (Eze, 2007). This is the reason while Okonkwo (2009) maintain that GALS need to be domesticated or bred in commercial purposes as one of the farm animals in Nigeria, including Ebonyi state. However, breeding according to Hornby (2001) is the production of young animals and plants. In the same development, Njoku (2008) is of the view that breeding is the process of mating the desired selected improved female with the male for producing expected qualitative young one; that have good and superior potentials needed by the consumers. He stressed that Giant African land Snails have both male and female reproductive organs. They are mated to lay eggs. It is necessary to provide good quality stock in the process of breeding.

According to Okoye (2008) breeding stock are the selected improved animals or crops ment for production of quality young ones that have the potential and quality needed in the farm. The farmer or breeder must have the criteria for selecting good breeding stock. According to Nweke (1993), the qualities to be considered in selecting good breeding stock include; Fecundity, hatchability, establishment rate, and growth rate. The breeding experiences and skills are required by secondary school graduates for rearing Giant African Land Snail. According to Nwite (2008) skill is the knowledge, and ability that enables you to do something well, it is a type of activities or work which requires special training or knowledge. Therefore, skills in snail breeding and rearing are required to be identified to the intending breeders. Giant African Land Snails (GALS) feeds on different type of leaves. However, the scientific importance of feed stuff that is given to snail is for good growth, good health, and proper development of the snail. The GALS need fast growth, which stimulate them for full development of their reproduction organ for breeding efficiency. Ogba, (2007) is of the view that factors like, temperature, light, intensity, air humidity, food preference, and food supply among others interferes on GALS activities. He stress that high temperature and light-intensity during day time subject GALS into hiding and it use to refuse, to eat their food. It is necessary for providing good house environment for GALS to enable them select their feeds, and maintain health life. This will enable the breeder not to put the GALS feed into a small feeder, to reduce cluster in the night. Secondary school graduate, according to Nwafor (2005) secondary school graduate are those, who have successfully completed their six years secondary education and have not gotten job in any

institution, they may have offered agricultural science in secondary schools. But were not fully given occupational skills required in the Giant African Land Snail breeding and rearing, because of the broad nature of their syllabus. This occupational skills demand that they should acquire the skills to prepare them for self-employment, and self-sustenance in the agricultural sector especially in this area of Giant African Land Snail. Based on the need to meet the demand for GALS production occupational skills for breeding and rearing required urgent attention by the graduates of secondary school in the state.

Specifically, the study tend to:

1. Identify the occupational skills required by secondary school graduate for breeding Giant African Land Snails (GALS).
2. Identify the occupational skills required by secondary school graduate for rearing Giant African Land Snails (GALS).
3. Identify the occupational skills required by secondary school graduate in disease control and routine management for rearing Giant African Land Snails (GALS).

### **Research questions**

1. What occupational skills were required by secondary school graduate for breeding Giant African Land Snails (GALS)?
2. What occupational skills were required by secondary school graduate for rearing Giant African Land Snails (GALS)?
4. What occupational skills were required by secondary school graduate in disease control and routine management for rearing Giant African Land Snails (GALS).

### **Research Methodology**

The area of the study is Ebonyi State of Nigeria. Ebonyi state is one of the state in the south Eastern Geopolitical zone of the country. The design of the study is descriptive survey. The population for the study is 254, agricultural science teachers in junior and senior secondary school in Ebonyi State (ESUBEB and SEB (PRS, (2014). A random sampling technique was used by balloting and replacement to collect the sample size of one hundred and fifty four (154) agricultural science teachers for the study. Instrument used was structured questionnaire developed by the researchers for data collection from the respondents. The instrument has a four points rating scale of strongly required (SR), required (R), Not required (NR), very not required (VNR), mean and standard deviation were used to answer the research questions. Any item in the instrument with mean of 2.50 and above were regarded as required. While mean rating below 2.50 were regarded as not required skills. The study revealed that all the item statement in breeding skills scored 2.50 and above. This implies that agricultural science teachers accepted all items as required skills. It implied that the identified skills were good enough for snail breeding and rearing by secondary schools Graduate. It show that skills in housing, in feeding, in routine management and disease control are the bases for breeding and rearing of Giant African Land Snail GALS. Among the recommendations made was that, improved stocks, housing material, feeding stuff and financial assistant should be given to the secondary school graduated by the government. While technical assistant from experienced rural snail farmers and agricultural science teachers should be given to secondary school graduate for snail breeding and rearing as young farmers

### **Result and Discussion**

#### **Research question 1**

What occupational skills were required by secondary school graduate on breeding of GALS?

**Table 1:** Mean rating response of the respondents on the occupational skills required by secondary school graduate for breeding GALS.

S/n	Housing Items	x	SD	Remark
1	Identify the type of pen environments (cage, house, tank)	3.7	0.53	Required
2	Skills of successful placing base layer of coarse gravel of about 20mm. dept. on the floor of the house.	3.1	0.56	Required
3	Skill of putting humus soil on top of the floor	2.5	0.96	Required
4	Skill of keeping the soil moist not wet for GALS.	3.3	0.64	Required
<b>Routine Management items</b>				
5	Skills of cleaning the tank, house more than 4-6 times a week depending on substrate used, and number of snail to use.	3.5	0.56	Required
6	Skills of sterilizing the breeding pen	2.6	0.59	Required
7	Skills of selecting good stock for breeding	3.3	0.67	Required
8	Skills of keeping record.	3.5	0.51	Required
9	Skills of placing water and feed for breeding snail.	3.3	0.51	Required
10	Skill, of removing breeding stock from the pen after laying eggs.	3.4	0.53	Required
11	Skill of ensuring wet environment in the pen.	3.6	0.56	Required
12	Skills of ensuring good hatchability	3.5	0.52	Required
<b>Feeding Items</b>				
13	Skills of supply quality feeds.	3.6	0.54	Required
14	Skills of providing vegetable and fruits feeds	2.7	0.58	Required
15	Skills of feeding as when due with water,	2.5	0.55	Required
16	Skills of removing the breeding snail in the breeding pen (House).	3.5	0.52	Required
17	Skills of putting water during hatching)	2.6	0.59	Required

**Research Question 2:** What occupational skills were required by secondary school graduate rearing giant African Snail (GALS).

Table 2: Mean rating response of the respondents on the occupational skills required by secondary school graduate for rearing Giant African land snails GALS)

S/N	Feedings Items	x	SD	Remark
1	Identify local feed stuff used for feeding GALS	3.5	0.88	Required
2	Identify all the sources of feed stuff used in feeding GALS	2.5	0.58	Required
3	Identify the feed GALS consumes faster.	2.6	0.96	Required
4	Provide adequate feed	2.5	0.88	Required
5	Provide enough water	2.7	0.91	Required
6	Provide clean feed to them.	2.8	0.54	Required
<b>Routine Management item</b>				
7	Keep appropriate record of feeding rate.	2.6	0.91	Required
8	Clean all the feeding trough	3.4	0.76	Required
9	Rear only GALS not with other snails.	3.5	0.87	Required
10	Feed GALS in the Evening and keep small quantity of feed for night.	3.1	0.42	Required
11	Provide clean water all the time	3.2	0.51	Required
12	Provide the water in the trough	3.5	0.81	Required
13	Record any deficiency observed in the pen	2.6	0.90	Required
14	Keep weight records for sales.	3.3	0.51	Required

Table shows the mean and standard deviation of agricultural science teachers on required skills for rearing of Giant African Land Snails (GALS) by secondary school Graduate. All the item statements were required, since, all the item have their scores from 2.50 and above.

**Research Question 3:** What occupational skills were required by secondary school graduate in disease control and management for rearing giant African Land Snail (GALS)

Table 3: Mean rating response of the respondents on the routine management and disease control skills required by secondary school graduate for rearing Giant African Land Snail (GALS).

S/n	Disease Control	x	SD	Remark
1	Identify and selecting health stock for mating.	2.6	0.95	Required
2	Disinfecting the Ground floor against fungi, bacteria, virus, among others before introducing stock.	3.4	0.80	Required
3	Keeping the pen environment clean 24 hrs.	3.7	0.90	Required
4	Providing clean, water, feed; and others feed additive	3.3	0.51	Required
5	Prevent contact with other foreign body for contamination.	3.1	0.41	Required
6	Isolate any dictated sick ones from the pen	2.6	0.90	Required
	<b>Routine Management Items</b>			
7	Wash well feeding trough and water trough regularly.	3.3	0.51	Required
8	Regular moisturizing clean floor environment	2.8	0.56	Required
9	Appropriate recording, of observations, damages within the pen environment.	3.3	0.51	Required
10	Keep good record	2.7	0.91	Required

### Discussion of findings

The findings of the study revealed in table 1. That each item have mean score of 2.50 and above in all the 17 item statements. This implied that all the item statement have required skills for breeding Giant African Land Snails (GALS). By graduates of secondary schools. The findings revealed that pen environment (House) successful, selecting improve health quality stock, for mating, timely placing then, top soil arrangement on floor, watering soil, sterilizing, ensuring moist environment, removing breeding stock, from the pen, after laying eggs and its hatchability, record keeping, among others have proved quality assurance for breeding snail. This study is in line with the study of Denga (2009) who observed that competent skills is a good attribute for snail breeding. He maintained that when such essential provision are made, snail yield will remain positive to the farmers.

The findings of the study in table II revealed that each item have mean score of 2.50 and above in all the 14 item statement. This implied that all the item statement were required, and essential, for rearing Giant African Land Snails by Graduate of Secondary schools in Ebonyi State. This study is in line with the study of Bamire (2008) who disclosed that identification remains the major strategy for rearing Giant African land Snails. (GALS). He stress that skilled farmers succeed in snail rearing, than unskilled farmers. And advocate for good skill development for unemployed youth, Adult who want to take snail, rearing and breeding as farming.

Findings of the study in table III show that all the item statement were accepted by the respondents. Since each item statement have mean-scores of 2.50 and above which is the cut of point for required skills. This implied that required skill has been identified and will be utilized by graduate of secondary school for rearing (GALS). This study is in line with the study of Ajayi (2009) who revealed that routine management and disease control skills remains the defence mechanism for rearing snails as a farmer.

### Conclusions

It can be concluded from the study that all the identified skills were accepted by the respondents. That graduates of secondary school, need the skills identified in Housing, Feeding, Routine management and Disease control for breeding and rearing of Giant African land snails:

### Recommendations

The researchers recommended that Graduate of secondary school need to be assisted by government in terms of input supplies, like, improved stock, supplements, pen (Housing materials) among others, while technical Assistant need to be given by agricultural science teachers, and experienced rural snail farmers to them. Financial help from government, should be given to them to start snail farming effectively.

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