

SOCIO-MORPHIC EVALUATION OF THE CHOICE OF STUDENTS' RESEARCH AREAS IN THE DEPARTMENT OF ANIMAL PRODUCTION, ABUBAKAR TAFAWA BALEWA UNIVERSITY BAUCHI (1995-2016)

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ABSTRACT

The study was carried out to evaluate the choices of research areas in the department of Animal Production, Abubakar Tafawa Balewa University Bauchi, Nigeria. A questionnaire was randomly administered to 75 students undergoing postgraduate programs in the department in different fields as primary data, 587 documents (Projects, thesis, and dissertations) submitted to the department of Animal Production from 1995 to 2016 were evaluated as secondary data. The questionnaire data was analyzed using the Likert statistical tool. The secondary data were analyzed by simple percentage, and the level of significance was tested using chi-square. The results showed that the least opted fields of specialization chosen by male candidates students was range and pasture management (6%) and the most frequently field of specialization opted for is animal production and health which constituted 63.3%. The least opted fields of specialization chosen by female candidates was ruminant nutrition (3.8%). The most preferred field of specialization by female candidates was animal production and health which constituted (88.4 %). The principal reason for the choice of animal production and health was market value of the field (Likert mean = 3.2). Out of the 587 records accessed and assessed, 27.4 % opted for monogastric nutrition and the least is in ruminant nutrition (6.3%). The test of association between animal science disciplines and class of degree was significantly different (Chi-square 84.797, df = 24 p = 0.001). It could therefore be concluded that research in animal agriculture in the department of animal production, Abubakar Tafawa Balewa University Bauchi from 1995 to 2016 focused majorly on monogastric animal nutrition. It was recommended that candidates should be properly guided during the choice of project topics in order to ensure all fields of animal production are given fair treatment.

INTRODUCTION

Animal science departments are principal progenitors and discriminators of scientific information relating to the production of agricultural animals and their food products. They are designed for teaching, research, and extension and are channels designed to advance and enhance scientific knowledge within agriculture and to make this knowledge available to the public (Swanson, 2011). The livestock industry in Nigeria represents a very important national resource that contributes substantially to the national wealth and also supplies the populace with the important animal proteins which are required for healthy living (Achonwa, 2017).

Postgraduate students have advanced coursework, research training, and have greater insight into the science behind issues.

Animal science research in Nigeria is currently focused majorly on monogastric animal nutrition and animal physiology, reproduction and welfare, and the most popular animal model for these studies is the domestic chicken (broilers). There is persistent neglect of other fields of animal agriculture research which has tilted the focus of this important sector to just an aspect translating into poor research outputs. This could be attributed to certain factors such as, material and human resources, test anxiety, time management, the financial status of the students, choice of research areas by the students, academic competence, study techniques, marital status, and age among others. Cemaloglu and Feliz, (2010) posited that there is a significant relationship between societal needs and research areas especially among postgraduate students. For year's students of the department of animal production at undergraduate and postgraduate levels and other researchers have conducted research with different objectives in different fields targeted at improving this important sector toward meeting the global demand for food from animal

agriculture (Food and Agriculture Organization, 2011). Therefore, the aim of this research was to evaluate the choice of research areas in the animal production department at ATBU Bauchi.

MATERIALS AND METHODS

Study area: The study was conducted at the department of animal production, Abubakar Tafawa Balewa University Bauchi, Bauchi State. The study area is geographically located between latitude 10°17'N, longitude 9°49' E, and 609.3 meters above sea level. The mean annual rainfall is 903.28. Sunshine is highest in December (300.3 hours) and lowest in August. April is the hottest month, with a mean temperature of 38.4°C (World Atlas, 2014).

Data Collection: Primary data was obtained by the administration of well-structured questionnaires to postgraduate students of the department in session at that time. Secondary data was obtained from the records of 587 Postgraduate Projects/thesis (Ph.D., M.Sc., PGD, and undergraduate students) submitted to the department of animal production Abubakar Tafawa Balewa University Bauchi over a period of 22 years (1995 to 2016).

Analytic tools: Descriptive statistics: Frequency and percentage as well the as Likert scale was used to analyze the data. The four points Likert scale with three mean decision rules was applied to analyze the questionnaire data.

Likert scale formula $x = \Sigma f/n$

Where; x=critical mean score. f=total scale score (4, 3, 2, and 1). n= Scale points

The four points of Workplace, Finance, Market value, and Undefined were scored as follows: Workplace = 1, Finance = 2, Market value = 3, Undefined = 4

Data Analysis: The data from the records of earlier research obtained were analyzed by simple percentage, and the significance level was using chi-square analysis. The questionnaire data were analyzed using the Likert statistical tool to determine the Likert means of all the variables.

RESULTS AND DISCUSSION

Results from Table 1 showed that the mean Likert scale was 3 which is market value. Expected additional income or economic value is given by the Likert mean (LM) of 3.2 which is reflected as the reason for male candidates choosing fields of specialization for animal breeding and genetics (LM =3) monogastric nutrition (LM=3.3), range and pasture management (LM= 3), animal production and health (LM=3.2) and post graduate diploma in animal production and health (LM =3) by male students. Male candidates coming for ruminant nutrition had different reasons, while there was no response for fisheries and wildlife. The least opted fields of specialization chosen by male candidates is fisheries and wildlife (0%) followed by the range and pasture management (6%) while the most frequently opted field of specialization was animal production and health both at postgraduate diploma (PGD) and Master degree (M. Sc.) levels which constituted 63.3%. Expected additional income or economic value is given by the Likert mean (LM) of 3.2. This is reflected in the choice of fields of specialization for animal production and health (LM=3.8) and postgraduate diploma in animal production and health (PGD) (LM = 1.7) by female candidates. Female candidates coming for animal breeding and genetics and ruminant nutrition have LM =1 with the workplace as their reason for the choices of these fields of specialization which is still linked to expected additional income. There was no response by female candidates for monogastric nutrition, range and pasture management, and fisheries and wildlife. The least opted fields of specialization chosen by Female candidates are monogastric nutrition, range and pasture management, and fisheries and wildlife (0%) followed by ruminant nutrition (3.8%), animal breeding, and genetics (7.6%). The most frequent field of specialization opted for by the students is animal production and health both at postgraduate diploma (PGD) and Master degree (M. Sc.) levels which constituted (88.4 %). The association between animal discipline and year is presented in Table 2. These results revealed that for the period under review (1995 – 2016), the distribution of candidates was significantly different (Chi-square 201.316, df = 132 p = 0.001) across different fields of specialization. Out of the 298 records accessed, 27.4 % opted for monogastric nutrition followed by animal production and health (20.0 %), animal products (15%), fisheries and wildlife (13.4%), animal breeding and genetics (11.4%), reproductive physiology (6.5%) and the least was ruminant nutrition (6.3%). This agree with the finding of (Okoli *et al*, 2020), which reveal that animal agriculture research in Nigeria is currently focused majorly on monogastric animal nutrition and that the most popular animal model for these studies is the domestic chicken and that there is persistent neglect to other fields of animal agriculture research which

have tilted the focus of this important sector to just an aspect translating into poor research outputs by researchers. Nuru S. (2008), has also reported that research on livestock production has concentrated on poultry in the areas of nutrition and genetics and breeding.

CONCLUSION AND RECOMMENDATIONS

Animal agriculture research in the department is currently focused majorly on monogastric animal nutrition and animal physiology, reproduction, and welfare and the most popular animal model for these studies is the broiler. The major reasons for the choice of these research areas are the market value (employment and income generation). Other fields of animal science should be given equal priority when considering project topics for postgraduate students. Candidates should be properly guided during the choice of the project topic in order to ensure all fields of animal production are given equal priority.

Table 1: Reasons for choice of postgraduate research areas in animal production department ATBU, Bauchi in 2019

ATPC, Baurin in 2019						
Research Areas	Ratings				Total Freq.	Remark
	1	2	3	4		
	Variables					
	Workplace	Finance	MV	Undefined		
MALES						
Animal Breeding & Genetics	1	0	1	2	4 (8.2)	MV (LM=3)
Monogastric Nutrition	1	0	2	4	7 (14.3)	MV (LM=3.3)
Ruminant Nutrition	0	0	0	4	4 (8.1)	Undefined (LM=4)
Range & Pasture Mgmt	1	0	0	2	3 (6.1)	MV (LM=3)
Fisheries & Wildlife	0	0	0	0	0	
Animal Production & Health	5	0	4	15	24 (49.0)	MV (LM=3.2)
PGD Animal Prod. & Health	2	0	1	4	7 (14.3)	MV (LM=3)
Total	10	0	8	31	49 (100)	MV (LM=3.2)
FEMALES						
Animal Breeding & Genetics	2	0	0	0	2 (7.7)	Workplace (LM=1)
Monogastric Nutrition	0	0	0	0	0	
Ruminant Nutrition	1	0	0	0	1 (3.8)	Workplace (LM=1)
Range & Pasture Mgmt.	0	0	0	0	0	
Fisheries & Wildlife	0	0	0	0	0	
Animal Production & Health	0	2	1	17	20 (76.9)	Undefined (LM=3.8)
PGD Animal Prod. & Health	2	0	1	0	3 (11.6)	Finance (LM=1.7)
Total	5	2	2	17	26 (100)	MV (LM=3.2)

Figures in parentheses are percentages.

MV = market value.

LM = Likert mean.

Table 2: Chi-square test of association between animal discipline and year

Year	N	Discipline						
		RN	MN	AB&G	RP	AP	AH&P	F&W
1995	1	1	0	0	0	0	0	0
1996	11	2	1	0	0	2	1	5
1997	6	3	1	0	0	1	0	1
1998	0	0	0	0	0	0	0	0
1999	19	1	3	3	0	1	4	7
2000	4	0	2	1	0	0	0	1
2001	7	1	0	0	0	3	0	3
2002	40	1	9	7	1	5	7	10
2003	18	4	5	1	2	1	3	2

2004	19	1	3	1	2	4	7	1
2005	38	4	15	1	1	7	5	5
2006	15	1	3	2	0	2	3	4
2007	8	0	1	1	3	1	2	0
2008	18	1	9	1	1	3	2	1
2009	20	0	7	4	0	0	5	4
2010	34	2	8	11	6	2	1	4
2011	43	1	17	6	2	5	6	6
2012	33	1	7	5	4	5	9	2
2013	6	1	3	1	0	0	1	0
2014	54	2	12	8	4	4	13	11
2015	49	0	17	7	1	8	8	8
2016	22	0	6	4	1	1	6	4
Unclassified	122	10	32	3	10	33	34	-
Total	587	37	161	67	38	88	117	79
Percentage	100	6.3	27.4	11.4	6.5	15.0	20.0	13.4

N=number of observation, RN=Ruminant Nutrition, MN=Monogastric Nutrition, AB&G=Animal Breeding & Genetics, RP=Reproductive Physiology, AP=Animal Products, AH&P=Animal Health & Production, F&W=Fisheries & Wildlife.

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