

CAUSES, EFFECTS AND POSSIBLE SOLUTION OF SEASONAL EGG GLUTS: A CASE STUDY OF EJIGBO SMALL POULTRY HOLDERS PERSPECTIVES.

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Abstract

A study was conducted to assess small holder poultry farmers' perspectives on the causes, effects and solution to the cyclical egg glut in Ejigbo, Nigeria using questionnaire for data collection and descriptive data analysis. Farmers interviewed agreed that government policies have a registered effect on drop of egg sales (73.6%), low egg sales due to low per capita income and consequently purchasing power (95%), lack of adequate education (75%), availability and affordability of close substitutes (20%), and availability and affordability of complementary foods e.g yam, bread (67%) were factors responsible for egg glut. Cyclical egg glut spans for a period of about four months in a year (80%) starting from March-June. The respondents also agreed that the period of recovery post-glut was 6 months. Respondents agreed that, sales of live birds (90%), disposal of stale eggs, sales of eggs at prices below marginal cost or high discount (85%), product sales on credit were the major coping strategies employed during egg gluts.

Keywords: *Egg-glut, small holders, peri-urban*

Introduction

Sub-Saharan Africa is considered the poorest region on earth. It is estimated that more than 90% of the populace live below poverty level or less than a dollar per day (Elmets communication, 2007). In a frantic effort to reverse this cycle of poverty (alleviation), several approaches have been postulated. Small holder poultry production holds a key panacea to poverty. In Nigeria, small holders constitute about 70% of total production (Sonaiya and Olori 1990).

Per capita egg consumption of sub-Saharan Africa (< 50) is the lowest in the world compared to a world average (230), and average in developed worlds 200-300 (International Egg commission, 2000). This observation is a paradox considering the seasonal occurrence of egg glut experienced in some areas in the Sub-Saharan Africa. In Nigeria, this cyclical egg glut spans for a minimum of 4-5 months/year through the operation of intrinsic seasonal menu dynamics. Several factors such as poor education, low personal income, availability of complimentary and or substitution foods and dearth of egg value addition products has been fingered as possible contribution to egg glut (Adejoro 1996)

The immediate effect of this cyclical egg glut occurrence include among others, unintended force molting, egg disposal at unit prices below break-even points, reduction of flock size through sale of live animals, dumping of stale and poorly stored eggs etc. these effects can be further compounded by lack of storage facilities and erratic power outages. The summation of these effects will further precipitate poverty in region if necessary coping strategies are put in place.

Studies on egg gluts are scanty and often times concentrated on consumers perspectives. The result of such studies tends to pick over production as the major cause which

can be misleading because of the present understanding of the operative dynamics (Adejoro, 1996). The present study approached the subject of egg gluts from the small poultry holders' perspectives. This group of farmers constitutes a major stakeholder of egg production in Nigeria.

Materials and Methods

Study area

The study area covered Ejigbo Local Government Area of Osun state, south west, Nigeria. This Local Government Area was divided into ten (10) units or wards including the surrounding villages.

This area is notable for peri-urban small holder egg production and other poultry products. The selection of this area was also based on the socio-economic factor of poultry farmers of this area that depends to a wholesome fraction on poultry business. These farmers have also had to cope with the cyclical drop in egg sales at one time or the other. The study was conducted to collect information on small holder poultry farmers' perspective of egg glut.

Research type

The research approach was descriptive by employing visible and physical factors to discuss the problems of egg glut from the small holders' perspectives. The research design involved the administration of questionnaires across the ten (10) wards of Ejigbo Local Government Area. A minimum of thirty (30) questionnaires were administered in each ward. A nested sampling technique was employed since information and data involved factors such as demography of respondents and discrete observations.

Data collection and analysis

The questionnaires were developed to collect data under three (3) major headings viz, demography, perceived factors responsible for egg gluts or drop in egg sales by farmers and the effects of gluts on the farm, farmer and the industry. Illiterate farmers were assisted to interpret the questions and also to write their responses with minimum bias.

Farmers were also allowed to ask questions where questions were deemed ambiguous. Data collected were analysed using percentage response by the farmers to items on the questionnaire.

Results

Table 1 shows the educational background, production systems, percentage and average stock size of respondents. Majority of the farmers interviewed (56.67%) were literate having attended a university. About 26.67% and 16.66% had secondary and primary educations respectively. Generally, because of the high level of literacy among the farmers in this area of study, peri-urban semi-intensive system of production (70%) was the usual system practiced. Five percent of the respondents practice the free range system while 5% use the deep litter system for production. The literacy level have also accounted for the high average henday production (70%) usually recorded by majority (80%) of the farmers. Since majority of the respondents are peri-urban farmers, the objective of which is to augment living expenses occasioned by rapid urbanization, the stock size of an average Respondent was between 200-500 birds (75%). Twenty percent of the farmers interviewed had stock size below 200 birds. Few farmers (5%) had stock size of more than 500 birds.

Table 1. Educational Background and Production Characteristics of Respondents

Items	Categories	Frequency of Respondents	Percentage (%) Response
Educational Background	University	170	56.6
	Secondary	80	26.7
	Primary	50	16.7
System of Production	Semi Intensive	210	70
	Deep Litter	75	25
	Free Range	15	5
Henday Production	>80%	9	3
	70 - 80 %	210	70
	<70 %	81	27
Stock Size	> 500	15	15
	200 - 500	225	225
	< 200	60	60

Table 2 shows the respondents perceived factors responsible for egg gluts experienced in Nigeria. Farmers interviewed agreed (73.6%) that government policies have a registered effect on drop of egg sales. They however disagreed that over production of egg (80%) and competition from other farms (90%) were major factors responsible for egg glut. Other factor that the farmers did not believe was contributory to egg gluts was poor storage facilities (80.7%). Among the other factors perceived to be responsible for low egg sales were low per capita income and consequently low purchasing power (95%), lack of adequate education (75%) availability and affordability of close substitutes e.g. guinea fowl eggs, soyabean cake (popularly known as “beske”) and cheese, (20%) availability and affordability of complementary foods e.g yam, bread (67%).

Table 2 Response of Farmers to Perceived Factors Influencing Cyclical Egg Gluts

Perceived factors	Agreed		Disagreed		Indifferent	
	Frequency	(%)	Frequency	(%)	Frequency	(%)
Government policies	221	73.6	76	25.4	3	1
Over production	15	5	240	80	45	15
Unfavourable competition	15	5	270	90	15	5
Poor storage facilities	30	10	242	80.7	28	9.3
Low per capita income	285	95	15	5	0	0
Close substitute	60	20	191	63.6	49	16.4
Complementary goods	201	67	69	23	30	10
Lack of adequate education	225	75	75	25	0	0

Majority of the farmers interviewed experience cyclical egg glut for a period of about four months in a year (80%), they also agreed that the months within the year that egg glut was mostly experienced were March, April, May and June (Table 3). The respondents also agreed (70%) that the period of recovery post-glut (stable egg sales) was 6 months i.e. July-December.

Most respondents agreed (Table 3) that, sales of live birds (90%), disposal of stale eggs, sales of eggs at prices below marginal cost or high discount (85%), product sales on credit were the major coping strategies employed during egg gluts (65). Most farmers have not use force molting (5%) as coping strategies.

Table 3. Response of Farmers to Time of Egg Glut, Recovery Time of Glut and Coping Strategies.

Time of egg glut (months) From march	>5months	15	5
	4-5	240	80
	<4	45	15
Period of recovery (months) From July	>6	30	10
	5-6	210	70
	<5	60	20
Farmers coping strategies during egg glut	Sale of live birds	270	90
	Disposal of stale eggs	255	85
	Egg sale below unit price	255	85
	Egg sales on credit	195	65
	Force molting	15	5

Discussion

Nigeria being a developing economy is fraught with high rate of private and public sector unemployment. Recent data put unemployment rate at above 60% of human capacity (Ajala 2006). This observation has a positive effect on poultry industry since a considerably proportion of university graduates have taken to poultry production, most of these farmers constitutes a large proportion of the peri-urban small holder farmers. This observation has also translated to efficient resource utilization resulting to high henday production recorded by the respondent farmers. Another derivable benefit from this trend is the ease of adoption of new technologies and implementation of government policies which, is expected to further increase capacity in this sector (Okoruwa 2006). The quest to augment the exorbitant living expenses in urban areas has been reported to evolve peri-urban small holder agriculture (Jensen 1996).

Peri-urban agriculture is an adaptation of the landless system of production. Being an attempt to partly augment living expenses, stock size and production capacities in this sector is usually lower than intensive system of production (Jensen 1996). In this study, most of the respondent small holder farmers studied adopted the semi-intensive production system that afforded small stocking rate. Government policies in terms of service delivery and stability have a profound effect on the economies of production of small scale enterprises (Ajala 2006). The

need to formulate mitigating policies that will provide a conducive environment for farmers is germane to economic emancipation of this sector of the economy (Taiwo 1999). Government must create capacities to 'buy up' production during gluts from farmers and further educate the public on the need to stay healthy through consumption of balanced diets.

Subsidies is also a compulsory policy tool to counter the deleterious effects of egg gluts on peri-urban and small holder farmers because of their small capacities (Ajakaiye et al 1999). The factors perceived by respondents as non-contributory to the cyclical egg glut has policy dimensions that must be critically considered. Most of these factors have always existed during the off period but were not strong enough to reduce egg consumption. The demand for eggs in Nigeria is still very far above the present production capacities (especially when value addition industries begin to evolve) (Okoruwa 2006). Sub-Saharan per capita egg consumption is less than 50 compared to developed world average of 200-300 (Elmet communications 2007). Capacities within this sector should be increased to keep pace with future egg demand projections by employing appropriate mitigating policies. Competition among producers should also be encouraged for improved product delivery. Government must also create avenues for cooperative farmers' society to serve as a platform for sectoral approach to an enduring solution to egg glut.

Subsidies to farmer (input, financial, buy up) should be accessible by farmers during the period of time gluts are known to be experienced (March to June). Farmers' progress should also be monitored during the recovery periods. This has become imperative since most farmers are forced to either sell or force molt birds or dispose eggs at ridiculous prices, bury consumable eggs etc while the period lasts. On the overall, improving the purchasing power of the populace will go a long way to solve the problem of egg gluts (Adejoro 1996).

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