

# A production report on Management system of backyard pigeon farming in the town of Mymensingh



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# A production report on Management system of backyard pigeon farming in the town of Mymensingh



A Production Report Submitted as per Approved Styles and Contents

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## **Abstract**

The survey was conducted in upazila sadar, Mymensingh from October 2019 to January 2020, to study the status of backyard pigeon farming in the town area. Data were collected from 16 backyard pigeon farms. The average number of squab (35%) was 16, with an average of 45 total birds for each farm. Most of the farmers (87.5%) rear pigeons in small scale scavenging system. Vaccination was practised in 50% of the farms and regular de-worming was done in 37.5% of the farms under study. Moderate biosecurity protocol was maintained in 62.5% of the farms.

**Keywords:** Pigeon, Squab, Backyard farming

# Chapter 1

## Introduction

Mankind has practiced pigeon-keeping about 10,000 years in almost every part of the world (Levi A, 1977). Probably pigeon is the first bird species to have been reared by humans (Johnston and Janiga 1995). The white pigeon or dove appears as an object of a symbol of peace. The pigeon was first domesticated in the Middle East around 3,000 BC (Levi B, 1977). After domestication, it would produce fresh meat during the winter months. Commercial squab production started in the USA (Levi A, 1977) then it gained popularity in European countries, Australia and Indian subcontinents. Pigeons are used for meat production, ornamentals, sports and experimental animals (Rahman, 1999). Chinese people consider the meat of pigeons as having medicinal value and squab is a part of celebratory banquets for a holiday such as Chinese New Year (Hsiung et al., 2005). Egyptians raised pigeon for food (Levi, 1972). Pigeons were popular in Romans, France and England as a means of livelihood to produce squab (Goodwin, 1967). Squab meat is very lean, easily digestible, and richer in protein, mineral and vitamin. It is also used as tasty, delicate and fancy meat (Aliza, 2005; Jane, 2005; Richard, 2006; Morgan, 2006).

Bangladesh has a long history in rearing pigeon in the backyard farming system. The weather is very suitable for pigeon rearing. It is relatively easy to rear pigeon in the backyard system. Comparatively, low investment, less care, less feed and housing cost involved, easy and economic husbandry practices, short reproduction care, cycle and less disease occurrence are observed for pigeon farming. Pigeon meat is very delicious, palatable and a good source of protein. It's dropping is a good source of biofertilizer for family gardening. Sustainable and increasing rate of pigeon farming may enhance the rate of reducing the gap of animal protein consumption/deficiency; increase the rate of poverty reduction and it may improve the socio-economic status of the poor rural community.

Pigeons are monogamous. Eight to 12 days after mating, the females lay 1 or 2 eggs which hatch after 18 days. The young are fed pigeon milk, a liquid-solid substance

secreted in the crop of the adult (both male and female) that is regurgitated. The young leave the nest at 4 to 6 weeks of age. Breeding may occur at all seasons, but peak reproduction occurs in the spring and fall. A population of pigeons usually consists of equal numbers of males and females. In captivity, pigeons commonly live up to 15 years and sometimes longer. In urban populations, however, pigeons seldom live more than 3 or 4 years.

The pigeon can consume simple feeds consisting of grains and a little good grit; the pigeon also needed clear water (Anggorodi, 1995).

The current study was conducted to know the backyard pigeon farming status in Mymensingh Sadar Upazilla region. The record included the breed, colour, biosecurity, sexing method, housing, feeding, mortality, vaccination, deworming, disease history, medication history, cost of production and total profit.

## Chapter 2

### Materials and method

**2.1 Study area:** The selected area was Mymensingh sadar upazilla and data was collected from the Mymensingh town. The areas and farmers were selected purposefully and randomly. The selected pigeon farms were located in the different areas of Mymensingh city corporation. 16 pigeon farms were chosen based on the information that the pigeon farm owners have been rearing different breeds and varieties of pigeons since a long time.

**2.2 Data collection:** Data was collected from 16 pigeon farmers located in the study area from October 2019 to January 2020. A questionnaire was made to collect data from the different farms located at Mymensingh City Corporation. The interview schedule was carefully designed, containing both open and closed form of questions. Most comfortable, simple and direct questions were asked the pigeon raisers to obtain information. 5 samples from each farm were randomly taken. The information based on number of adult pigeons, number of squabs, mortality from total housed, breed, color, sexing, biosecurity, type of house, feeding, vaccination and deworming history, disease and medication history, approximate total annual cost, return and profit of the farm.

**2.3 Data compilation:** Collected data were compiled, tabulated and analyzed. Qualitative data were converted into quantitative forms through the suitable score whenever needed and the local units were converted into standard unit scales. Simple tabular techniques were used to explain the data.



## Chapter 3

### Result and Discussion

**No. of pigeon:** The average no. of pigeon from 16 farms were 45.375 and the average no. of squab was 15.875, which is 34.98% of the total number.

**Table 1:** The total number of pigeon and squab in each farm and the average number of the pigeon

Farm no.	No. of pigeon	No. of squab
1	60	18
2	70	34
3	80	36
4	14	4
5	60	22
6	60	26
7	16	4
8	60	20
9	14	4
10	60	20
11	60	18
12	40	12
13	70	30
14	16	0
15	16	2
16	30	4
Average	45.375	15.875

**Bodyweight:** The average body weight of adult pigeon of 3 to 4 months of age was 300.63 grams. Squabs are sold to the market at the age of one month.

**Table 2:** The average bodyweight of the pigeon of each farm and the total average

Farm ID	Average body-weight (gm)
1	260
2	290
3	300
4	340
5	350
6	270
7	280
8	320
9	260
10	300
11	300
12	290
13	350
14	350
15	250
16	300

**Type of house:** Two types of houses were found; cage (intensive) – 12.5% and wooden box (extensive) - 87.5%.

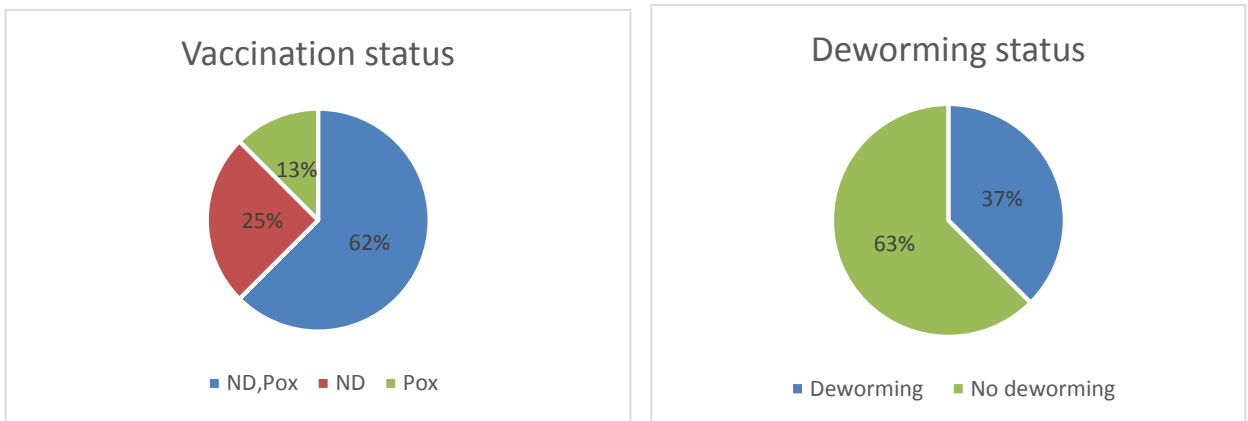
**Mortality:** The mortality rate varies from farm to farm. The mortality rate was 7.9% of the total number of farms.

**Sexing:** There was no distinct method for sexing. Almost everyone differentiates male and female from vocal and size. The male makes a cooing sound and larger than female, whereas the female is gentle and smaller in size.

**Biosecurity:** The biosecurity and cleaning status of the farms were very poor. A small cleaning was done every week and some eventually didn't clean the houses. Around 62.5% of the farms maintained biosecurity at the time of the study.

**Feeding:** Most of the farmers bought a local concentrate feed consist of maize, mustard, wheat, paddy, mosur, khesari, which proximate nutritional value is not known. Additionally vitamin-mineral supplements were given in 50% of the farms.

**Vaccination and deworming:** Vaccination was done in 50% of the farms where ND, along with Pox was in 62.5% of the vaccinated population. 25% was given only ND vaccine and 12.5% were given only pox vaccine. On the other hand, deworming was done in 37.5% of the farms.



Pie Chart of Vaccination and deworming status

**Total profit:** The annual profit varies from farm to farm depending on the no. of pigeons. The average profit was 11968.75 taka per year.

Different types of pigeon breeds were found in different farms they are Sirazi, Lakkha, Giribaz, Loton, Fantail, Deshi. Asaduzzaman *et al.* (2007) reported that most of the pigeon farmers of Bangladesh had no idea about the breeds or varieties of pigeon. They also reported that usually, pigeons reared as pairs. So, the male-female ratio should be 1.0. Among all the pigeons half were male and half were female in the current observation, which correlates with our observation. Pigeons have a special character to mate pair only. If one lost from a pair, then remaining one should keep with another opposite sex in a coop at least 7 days for regular mating or making a new pair (Ensminger, 1980). The profit is also very little.

In this study, the Mortality was 7.9% which is more or less similar to the findings of Asaduzzaman *et al.* (2007) who found 5-15 %. Most of the Mortality and missing occurred from the attack of predators and disease.

## **Chapter 4**

### **Conclusion**

From the study, it is obvious that pigeon farming in the Mymensingh town is not so well organized. Most of the pigeon farmers do not have proper knowledge of management. People are rearing pigeon in traditional ways with little care and management to increase their family income and protein need. Some owners rear pigeon just as a hobby. The result from this study indicates that the production level (squab) of pigeon per year is low, or not up to the mark as reported by the different pigeon farm owners. The production level can be enhanced by improving feeding, breeding, disease management and other environmental support. The disease can be prevented by proper vaccination and deworming and maintaining good biosecurity. On the other hand, it can be a great source of income as the price of pigeon meat is high and preferred by most consumers. In the future, further extensive studies on pigeon of a larger population and of different areas should be done to know the management practice of individual breed and varieties. However, it can be concluded from the study that pigeon farming in the urban areas might be a potential source of family income generation and be a way to fulfil the huge protein gap of the country.

## References

- Ahmed, S. (1988). Role of farming system research in identification of problems of poultry production. Proceeding of the workshop on Livestock Component of Farming System Research in Bangladesh, 21st December 1988, Bangladesh Agricultural Research Council, Dhaka, Bangladesh.
- Alam J (1995). Livestock resources Bangladesh: Present status and future potential. University Press Limited. p. 12-29.
- Aliza, G. (2005). Field guide to meat: How to identify, select and prepare virtually every meat, poultry and game cut. Quirk books. pp 221-223. ISBN 9781594740176.
- Alwazzan (2000). Pigeon Meat Farm. Victoria. <http://www.Alwazzan.com/>
- Anggorodi R (1995). Nutrisi Aneka TernaUnggas. PT. Gramedia Pustaka Utama. Jakarta.
- Asaduzzaman, M., Mahiuddin, M., Howlider, M.A.R., Hossain, M.M. and Yeasmin, T. (2009). Pigeon farming in gouripur upazila of mymensingh district. Bang J Anim Sci, 38(1&2), 142 – 150.
- Blakely J, Bade DA (1989). Ilmu Peternakan Umum. Terjemahan (B. Srigandono). Gajah Mada University Press. Yogyakarta.
- Bretton, P. (1914) Pigeons for profit. London: C, Arthur Pearson Ltd.
- Castoro and Guhl.(2008).“Pairing Behavior of Pigeons Related To Aggressiveness and Territory” (Web article). The Wilson Bulletin. [http:// elibrary. unm. edu/ sora/ Wilson/ v070n01 /p0057-p0069.pdf](http://elibrary.unm.edu/sora/Wilson/v070n01/p0057-p0069.pdf). Retrived 2008-04-07.
- Ensminger, M. E. (1980). Poultry Science 2nd Ed. Interstate Printers & Publishers, Illinois.
- Goodwin, D. (1967). Pigeons and Doves of the World. Britain Museum National History, London, United Kingdom.
- Haque, Q.M.E. (1987) Characteristics of two villages for farming system research. Farming System Research Programs, Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh.

- Hsiung DT, Simonds N, Lowe J (2005). The food of China: A Journey for food lovers. Murdoch books. p. 125. ISBN 9781740454636.  
<http://www.Magma.ca/~laded/nutrition.html>
- Jane C (2005). Monuments to the birds: Dovecotes and pigeon eating in the land of fields. *Gastronomica*. 5 (2): 50-59. Doi:10.1525/gfc.
- Johnston RF, Janiga M (1995). Feral pigeons. Oxford University Press, New York.
- Levi, W. (1972). Making pigeons pay. Levi Publishing Company, Inc. Sumter, SC.
- Levi W (1957). The Pigeon Sumter, S. C. Levi Publishing Company, Inc. p. 537. ISBN 0853900132.
- Levi, W.M. (1969). The pigeon. Levi Publishing, Sumter SC.
- Levi, A. W. (1977). The Pigeon Sumter, S. C. Levi Publishing Company, Inc. p. 507. ISBN 0853900132.
- Levi, B. (1977). The Pigeon Sumter, S. C. Levi Publishing Company, Inc. p. 524. ISBN 0853900132.
- Lewis, E.C., Charles, J.W., Edward, T.M. and Elton, I.J. (2003) Homemade comfort cages for small poultry flocks. Maryland Cooperative Extension, Factsheet 429.
- Morgan, J. L. (2006). Culinary creation: an introduction to food service and world cuisine. Butterworth-heinemann hospitality management series.

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## **Biography**

Myself, Sakib Shariar, Son of Rafiqul Haque and Fawzia Parvin. I was born in 21 October 1996. I started going to school when I was only five. I have completed my primary and secondary education from Premier Ideal High school and completed my higher education from Shahid Syed Nazrul Islam College, Mymensingh. At present I am continuing my education as an Intern Doctor under Faculty of Veterinary Medicine, Chattogram Veterinary And Animal Sciences University. I have a dream to be good veterinary practitioner.