



Limitations in Pigeon Keeping: A Review

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Abstract

Pigeons are showing remarkable progress with more profit. This sector has many potential markets in the country. After visiting some pigeon houses, many limitations have been come out. Many rearers collect pigeons based on only physical appearance, and in the long run, they cannot get pure offspring. King pigeon is considered a table breed in the world but in Bangladesh rearers keep them as a common fancy item. Pigeons do not get their nutritious food from the owners. Result suggests that many rare pigeons are caught by predators and due to unwanted dirt in those lofts birds are affected by many diseases. Some remarkable farms are showing quality environment in their lofts and getting desirable profit.

Keywords: limitations, pigeon, keeping, rearing

1. INTRODUCTION

Pigeon keeping is a primitive hobby all over the world. Many famous people of the world kept pigeons for their amusement [1]–[3]. Activities of pigeon club and research are increasing in the country and this the best way for overcoming many limitations in this pigeon sector [4]–[6]. In the year 2020, 29 February, the National Pigeon Association of Bangladesh (NPAB) organized an international pigeon fair in Dhaka [7] for strengthening the bondage of pigeon rearers all over the world due to commercial purpose. Mulyani et al. [8] completed several works on the moulting of birds. At this time, female pigeon needs special care and extra protein added food is recommended. Genetically, pigeons have very strong navigation power as a whole [9]–[11]. The only chromosomal method is the reliable indicator for sex determination of pigeon and he mentioned 14 points for identification of purebreds of pigeon [12]. Secondly, Haunshi [13] described some good points for pigeon identification. Lapedra et al. [14] studied the genetic behaviour of pigeons. Any crossbred have been considered an

excellent foster pigeon in Bangladesh [15][16]. In Bangladesh many pigeon markets and pet shops are available. When pigeon lovers purchase their racing pigeon they observe flight muscle, flying capability in their home, feathers, and eyes. In the case of the fantail pigeon, they see only the number of rectrices, large-size, crest, and tremule [17]. Rats and mice are available in most pigeon farms in Bangladesh which are the main source of typhoid bacterium [18][19]. Many pigeon keepers provide huge poultry feed to the pigeons and for this pigeons got obese and ultimately the production slows down. Naturally, pigeons are very intelligent and normally do not get fear to see domestic animals [20]. The objective of this review is to perceive the major limitations with their solutions in the pigeon farms of Bangladesh as a whole.

2. CHARACTERISTICS OF PUREBREDS

Each breed of pigeon has some salient features. Before starting a pigeon farm need to understand those grading points of the pigeons. Body structure, disease-free condition, legs, tail, breast, head-beak-cere-wattle-eye, neck, etc. all are the points for collecting a pigeon [17][21]–[23]. In addition, need to know their weight, leg feather, number of rectrices, rump width, and position of wing [24]–[26].

3. COMMERCIAL MEAT-BRED

King Pigeon is the best for meat purpose [7]. Females will have a useful breeding life of up to 10 years and males 5 years. Pigeon meat has some

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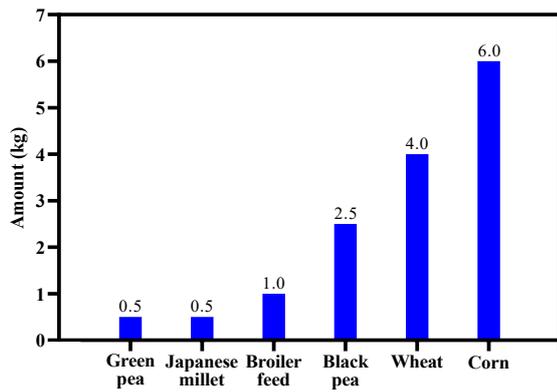


Figure 1. Food stuffs for pigeons.

remedic values like depression, muscle pain, thyroid problems, skin problems, hair loss, nail problems, lower immunity and this meat is enriched with more zinc, phosphorus, iron, sodium, selenium, and copper. Chinese people take pigeons' meat as their medicinal value [27].

4. FOOD AND NUTRITION

In the life of pigeons we see their growing, moulting, breeding, laying and hatching stages. Home-made healthy grits are good for the bone formation all the year round. For controlling fungal growth in feed need to dry feed by sunlight. Sometimes, long bristles of paddy can attach to the pigeons' gullet which causes abscess. Supplied water will be clean always. In pre-laying/hatching/suckling stages- corn 6 kg, wheat 4 kg, black-pea 2.5 kg, Japanese millet 0.5 kg, broiler feed 1 kg, green-pea 0.5 kg (Figure 1), and mustard 250 g are suitable [20]. Abd El-Hack et al. [28] mentioned that the feed consumption is about one-tenth of the pigeon's body weight.

5. PIGEONS' PREDATORS

A study in Bangladesh suggested that out of 12 predators' mammals were the highest number [29]. In Israel and Bangladesh, golden jackals were seen as scavengers [30]–[32]. Poison bait is used for controlling this golden jackal [33][34]. Sometimes rock-pigeons are killed by predator birds. There are 17 species of raptors are found in Bangladesh consisted of three families- falconidae, accipitridae, and pandionidae [35]. Indeed, falcon does not breed in Bangladesh. A piece of mirror on the long trees

beside the farm and irregular flying of tumbler and racing pigeons makes puzzle of the raptors [35]. Snakes can be controlled by using thallium sulfate. To make fear, scarecrow and water spray are useful for protecting such pigeons [29]. Monitor-lizards may come near the loft for carcasses. For protecting pigeons, farmers should know the breeding season of crows. Pit Bull, Fox Terrier, and Airedale Terrier dogs are good for patrolling the loft [36]. Treepie (*Dendrocitta* spp.) consumes 64% insect in the crop field and only attacks 0.1% to *Columba livia* nestling [37]. One inch mesh size is sufficient for controlling sparrows within the loft. White feathered pigeons are always caught by the predators.

6. DISEASES OF PIGEONS AND CAGE SANITARY

Out of 20 diseases of pigeons in Bangladesh 30% were for bacterium, 20% viruses, 15% rearing related, protozoan and vitamin deficiency 10%, 5% for fungal, and *Mycoplasma* and food related 5% [38] (Figure 2). In the country most pigeon keepers are not conscious about the diseases of their pigeons. Some mycotic, bacterial, protozoal, chlamydial, rickettsial, and parasitic diseases are considered as zoonotic diseases and their numbers are approximately thirty [39]. Pigeons are occasionally treated as zoonotic harbour. Pigeons waste carries *Aspergillus* fungus and 2% *Salmonella* bacterium. Dirty water mainly after pigeons' bath is the great source of fluke and lots of mites. Runt, King, and Strasser are higher intensity of parasites and other study showed that older pigeons can be affected by *Trichomonas gallinae*. Coccidiosis/Blood dysentery is second common problem of all farms. Disinfection by using savlon,

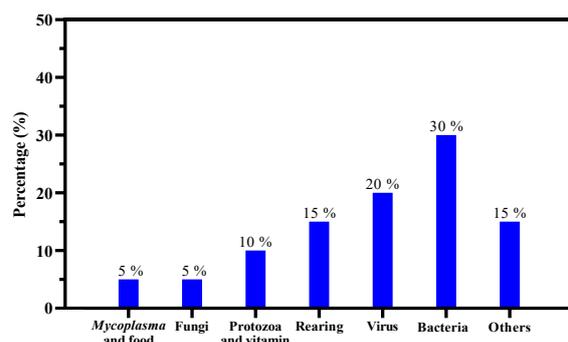


Figure 2. Percentages of disease incidents.

Table 1. Important features of pigeons with references.

| Features | Examples | References |
|------------------|---|-----------------|
| Amusement | Pigeons flying was prehistoric hobby of human being | [41] |
| Characteristics | Good ranked pigeons are must for better production | [7][16][21][29] |
| Moulting | Some rules should maintain during moulting especially food | [20] |
| Feed | Different stages of pigeons need different type of mixed food | [20] |
| Pigeon predators | Preventive and biological are the effective method | [35] |
| Diseases | Cleaning is the best option | [38] |
| Genetics | Genetics is very important for sex determination | [42] |

dettol, potash, and bleaching powder is good at all. Excessive number of birds in a narrow space and poor ventilation causes the ammonia toxicosis that enhances ocular discharge. Newly fledged pigeons' showed the highest mortality and time between fledging and settlement in a feeding flock is crucial [40].

7. CONCLUSIONS

Bangladesh is an excellent harbour for many fancy pigeons. All birds have true markings but need to ensure those characteristics by the keepers by keen observation. We can establish a pigeon farm only for human meat consumption after fulfilling our hobby. In this regard, king pigeon, strasser, and maltese breeds can be good perspective Bangladesh. Without nutritious food, it is quite impossible to get sufficient meat from the squabs and nice pairs for the fulfillment of our hobby. Different stages of pigeons need different food ratios with sufficient home-made grits. We should increase our knowledge for understanding purebreds either they are fancy or table breed. In addition, we need to overcome major limitations such as cleanliness and balanced diet for achieving positive impact in our economy.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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