

# ISRG Journal of Agriculture and Veterinary Sciences (ISRGJAVS)



**ISRG PUBLISHERS**

Abbreviated Key Title: ISRG. J. Agri.Vet.Sci.

**ISSN: 3048-8869 (Online)**

Journal homepage: <https://isrgpublishers.com/gjavs/>

Volume – III Issue - III (May-June) 2026

Frequency: Bimonthly



## The status of field-fed pigeons in Bangladesh: a case study

Ashraful Kabir<sup>1\*</sup>, Mamata Rani Das<sup>2</sup>, Khairul Syed<sup>3</sup>

<sup>1</sup> Department of Biology, Cantonment Public College, Saidpur Cantonment—5311, Nilphamari, Bangladesh  
ashraful.mission@gmail.com

<sup>2</sup> Department of Natural History, Bangladesh National Museum, Shahbag, Dhaka — 1000, Bangladesh

<sup>3</sup> Assistant Editor, International Scientific Research Group (ISRG) and Publishers, Jamuna Gaon, District–Hojai, Assam 782440, India

| **Received:** 22.04.2026 | **Accepted:** 01.05.2026 | **Published:** 10.05.2026

\*Corresponding author: Ashraful Kabir

### Abstract

*In order to protect field-fed pigeons, at the present context, this write-up is significant at all. Reports from the farmers of the urban areas of Bangladesh and published newspaper reports suggested remarkable number of pigeons' death. Applied pesticides (organophosphate/carbamate—acetylcholine esterase inhibitor) which was neurotoxic for field wildlife as well as pigeons. In fact, domestic pigeons are not prone to go to the field for their food, except feral pigeons; farmers provide sufficient food at home. Very few go to the field if there were open field near their loft. During wheat and mustard cultivating season of Bangladesh, sometimes this type of bad incident may happen but this is rare now. Naturally, most farmers did not free their lands for foraging any birds; they cultivate crops one after another. To protect pigeons, motivation for not using poison in the field, could play a remarkable role. By using poison with the food is a great offence under the Wildlife Act.*

### Introduction

The rock pigeon (*Columba livia*) is widely found across Bangladesh and commonly occurs in close association with human settlements in both urban and rural areas. While domesticated pigeons are largely managed within household environments, feral populations frequently interact with agricultural ecosystems. Field-fed pigeons represent a unique interface between domesticated and wild avifauna. Their dependence on agricultural fields exposes them to anthropogenic threats, especially pesticide poisoning. In

recent years, several incidents of mass mortality have been reported, raising concerns about their conservation status. This study aims to document poisoning incidents, analyze their causes, and provide recommendations for the protection of field-fed pigeons in Bangladesh. In Bangladesh, several pigeon mortality events have been reported in recent years. These incidents are frequently associated with pesticide-contaminated grains. Ecotoxicological studies show that pesticides can also cause sub-

lethal effects in birds (Hoffman *et al.*, 2003). These effects include behavioral changes and reduced reproductive success. Agricultural practices such as pesticide-coated seeds contribute to wildlife exposure risk (BARC, 2018). Environmental contamination of soil and water further increases exposure pathways. Despite these risks, systematic scientific studies on pigeon mortality in Bangladesh remain limited. Most available information is derived from field observations and media reports. This creates a significant gap in avian ecotoxicology research. Understanding exposure pathways is

essential for conservation planning. Field-fed pigeons also serve as indicators of environmental health (Hill, 1997). Therefore, studying their risk exposure provides insight into broader ecosystem impacts. This study aims to document poisoning incidents, analyze causes, and propose conservation strategies for field-fed pigeons in Bangladesh.

**Poisoning incidents from 2021 to 2024**

**Table 1.** The fate of field-fed pigeons

Date of incidents	Places	Affected birds	Cause of death	References
7 May, 2021	Bagerhat (Morrelganj)	340 doves and 60 pigeons	Poisoned with bird-food	TheDailyStar.net
22 September, 2021	Sirajganj (Shahjadpur)	65 doves and 7 pigeons	Pesticide-treated black gram (masakalai)	Dhakatribune.com
17 December, 2021	Natore (Boraigram)	100+ pigeons	Poison-mixed wheat	Observerbd.com
5 August, 2023	Pabna (Ishwardi)	50 pigeons, 3 doves, 2 parakeets	Poisoned wheat	Observerbd.com
1-3 December, 2024	Satkhirasadar	108 pigeons	Mustard	Dhakastream.net



Source: <https://www.thedailystar.net/environment/wild-life/news/400-doves-pigeons-poisoned-death-bagerhat-2086841>



**Fig 1.** Poisoning incidents affecting field-fed Pigeons in Bangladesh (2021-2024)

### Mode of poisons and such reports from the field

Field investigations and media reports indicate that poisoning occurs primarily through the deliberate mixing of toxic substances with seeds or grains. Farmers often apply pesticide-treated seeds in agricultural fields to control pests such as rodents, insects, and sometimes birds. However, these practices unintentionally or intentionally affect non-target species like pigeons. In some cases, poisoned bait is deliberately used to deter birds from feeding on agricultural crops, which poses significant risks to non-target species such as pigeons. For example, pesticide-treated wheat seeds are commonly applied during sowing to reduce seed loss caused by birds and other pests, while granular pesticides are often mixed with grains and dispersed in fields prior to planting vegetables like radish. Additionally, there are instances where farmers intentionally mix toxic substances with bird feed to control perceived nuisance bird populations. Although these practices are aimed at protecting crops, they frequently result in unintended wildlife mortality and raise serious ecological and legal concerns. A notable case reported that pigeons killed in Satkhira were valued at approximately 1.5 lakh BDT, highlighting the economic loss suffered by pigeon owners. Legal action has been taken in some instances. Raihan Kabir, the owner of killed pigeons, claimed the pigeons were worth around 1.5 lakh taka (Stream Report, 2025). For killing 65 doves and 7 pigeons in Sirajganj (Shahjadpur), the local Forest Department lodged a written complaint with Shahjadpur Police Station under the Wildlife Act (Nafiu, 2021). For example,

in the Sirajganj incident, the Forest Department filed a complaint under the Wildlife Act, indicating increasing regulatory attention. Farmers sowed poisoned wheat seed in their fields from rats, birds, and insects (Correspondent, 2021). Before sowing radish seeds in the field, farmer applied granular poison with wheat to protect beetles and birds (Correspondent, 2023). Farmers used poison with bird-food for controlling other birds with the pigeons (Star Digital Report, 2021) (Table 1). Internationally, similar mortality events have also been recorded. In Germany, after collecting sick or dead pigeons from the field, report suggested paramyxovirus infection (Suntz and Fischer, 2023). For instance, studies in Germany have linked pigeon deaths to paramyxovirus infections, suggesting that not all mortality events are poisoning-related and that disease surveillance is also important.

### Field feeding ecology and risk exposure

Field-fed pigeons in Bangladesh occupy a wide range of anthropogenic and semi-natural feeding environments, including urban parks, market areas, roadside zones, religious sites, and agricultural field margins. Their feeding ecology is strongly shaped by human activity, particularly the availability of discarded food, deliberate feeding practices, and residual agricultural grains. Overall, the feeding ecology of pigeons in Bangladesh reflects a strong dependence on human-modified environments, where food availability is high but often associated with substantial ecological and toxicological risks.

**Table 2.** Summary of field-fed pigeon feeding incidents and associated risks in selected areas of Bangladesh

Location (District)	Type of Feeding Site	Main Food Sources	Observed Health Issues	Potential Risk Factors
Dhaka (Urban parks)	Public feeding zones	Rice, bread, biscuits	Malnutrition, feather loss	Processed food dependency
Nilphamari (Rural markets)	Market squares	Broken grains, leftovers	Digestive disorders	Contaminated food waste
Rangpur (Roadside areas)	Street feeding	Mixed grains, crumbs	Low survival rate in chicks	Traffic exposure, toxins
Chattogram (Religious sites)	Temple/mosque areas	Wheat, rice offerings	Overcrowding stress	Disease transmission
Rajshahi (Open fields)	Agricultural land edges	Paddy grains	Mild parasitic infection	Agrochemical exposure

The findings suggest that field-fed pigeons in Bangladesh face both anthropogenic and biological threats. Among these, poisoning remains the most immediate and preventable cause of mortality (Table 2). Feral pigeons are particularly vulnerable due to their natural foraging behavior. In contrast, domestic pigeons are relatively protected because they depend on controlled feeding systems. However, when domestic pigeons are allowed to forage freely, they become equally at risk. Modern agricultural practices, including continuous cropping and reduced fallow periods, have decreased natural foraging opportunities. This forces pigeons to rely on risky food sources, increasing exposure to toxic substances. The issue reflects a broader conflict between agricultural productivity and wildlife conservation, requiring balanced and sustainable solutions.

### Recommendations

1. It is a punishable offence to kill birds by mixing poison in seed or food in terms of protecting biodiversity.

Strengthening legal enforcement is essential for safeguarding biodiversity;

2. If pigeon go to the field, call them through whistle (if practiced before);
3. If pigeons forage close to home and timely released, low risk will be happened in this case;
4. Feral pigeons (domesticated rock-pigeons) are more threatened in this case due to their wild behaviors;
5. Motivation is important to the farmers;
6. Permanent offering of super grits at home so that pigeons will not enter the field;
7. Keep pigeons hydrated; it cannot tolerate thirst;
8. In case of emergency, for controlling pigeons in the field, only physical and biological method are allowed.

## Conclusions

Field-fed pigeons in Bangladesh are increasingly at risk due to poisoning associated with agricultural practices. Although such incidents are not extremely frequent, their impact is severe, often resulting in mass mortality. Effective conservation requires a combination of legal enforcement, farmer awareness, and improved pigeon management practices. Protecting these birds is not only important for biodiversity but also for safeguarding rural livelihoods associated with pigeon rearing. The widespread use of pesticides in crop production has created unintended risks for non-target species such as pigeons. These birds are frequently exposed through contaminated grains, seeds, and water sources. Although reported poisoning incidents are relatively sporadic, their consequences are often severe and result in significant mortality. Such events highlight the ecological sensitivity of field-fed pigeon populations. The overlap between agricultural land use and avian foraging behavior intensifies exposure risks. Feral and free-ranging pigeons are particularly susceptible due to their dependence on open fields. In contrast, domesticated pigeons remain relatively protected under controlled feeding conditions. However, when allowed to forage freely, they face similar levels of risk. The issue reflects a broader challenge in balancing agricultural productivity with wildlife conservation. Unsustainable pesticide practices continue to pose a major threat to biodiversity. In addition to acute toxicity, chronic exposure may affect reproduction and long-term population stability. These impacts are often overlooked due to limited scientific monitoring. Strengthening awareness among farmers is essential to reduce harmful practices. Legal enforcement of wildlife protection regulations must also be improved. The adoption of safer and non-lethal pest management strategies can significantly minimize risks. Providing adequate food and care for domesticated pigeons can reduce field exposure. Community engagement is crucial for promoting conservation-friendly practices. Protecting pigeons contributes to maintaining ecological balance in human-dominated landscapes. Therefore, coordinated efforts are necessary to ensure the long-term survival of field-fed pigeon populations in Bangladesh.

## References

1. Bangladesh Agricultural Research Council (BARC). 2018. *Pesticide Use and Regulation Guidelines in Bangladesh*. Government of Bangladesh. pp. 22-47.
2. Correspondent. 2021. 100 pigeons die from poison at Boraigram. <https://www.observerbd.com/news/344525>
3. Correspondent. 2023. 50 pigeons die after eating poisonous wheat in Pabna. <https://www.observerbd.com/news/431212>
4. Hill, D. S. 1997. *The Economic Importance of Pests and Their Control*. Chapman & Hall, London. pp. 112-148.
5. Hoffman, D. J., Rattner, B. A., Burton, G. A., Cairns, J. 2003. *Handbook of Ecotoxicology* (2nd ed.). Lewis Publishers. pp. 290-340.
6. Nafiu, R. F. 2021. 72 birds die eating pesticide-related masakalai. <https://www.dhakatribune.com/bangladesh/259308/72-birds-die-eating-pesticide-treated-masakalai>
7. Star Digital Report. 2021. 400 doves, pigeons poisoned to death in Bagerhat. <https://www.thedailystar.net/environment/wild-life/news/400-doves-pigeons-poisoned-death-bagerhat-2086841>
8. Stream Report. 2025. 108 pigeons poisoned to death for entering mustard field in Satkhira, complaint filed. <https://www.dhakastream.net/bangladesh/108-pigeons-poisoned-death-entering-mustard-field-satkhira-complaint-filed-188136>
9. Suntz and Fischer. 2023. Regionally clustered deaths among domestic and wild pigeons. Chemical and Veterinary Investigation Office, Freiburg, Germany.