



Organic Poultry Farming in India: Requirements, Advantages, and Challenges

Amritha Udayan*, Megha AP, Sosa jacob, Irshad A

Department of Livestock Products Technology, College of Veterinary Animal and Sciences Mannuthy, Kerala Veterinary Animal and Sciences University, Pookode, India

***Corresponding Author:** Amritha Udayan, Department of Livestock Products Technology, College of Veterinary Animal and Sciences Mannuthy, Kerala Veterinary Animal and Sciences University, Pookode, India.

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Abstract

Organic poultry farming has gained prominence in India as a sustainable alternative to conventional methods. With a significant population of chicken in the country, even a small shift towards organic production can create a substantial market for both domestic and international consumption. Organic poultry farming involves raising chickens without cages, providing outdoor access, and feeding them organic feed and natural pastures. The main objective is to produce poultry free from industrial pesticides, antibiotics, hormones, and mammalian byproducts, adhering to strict criteria and regulations. This paper explores the requirements, advantages, and challenges associated with organic poultry farming in India. It discusses the necessary conditions for successful organic poultry farming, the benefits it offers in terms of sustainability and product quality, and the constraints faced by farmers in adopting this method. By examining these factors, this paper aims to provide insights into the potential of organic poultry farming and the ways to overcome the challenges to promote its growth in India.



Keywords: Organic Poultry Farming; India; Requirements, Advantages; Challenges

Introduction

Organic farming has grown quickly in recent years across all agricultural and livestock sectors, including poultry production. Due to the presence of numerous medications and pesticide residues in traditional products, there has been an increase in health concerns over the quality of egg and meat products. Sustainable resource use, environmental protection, and animal care are the goals of organic poultry production. Organic farming is defined by the FAO as a distinct production management system that promotes and enhances the health of the agroecosystem, including biodiver-

sity, biological cycles, and soil biological activity. This is done by using on-farm agronomic, biological, and mechanical methods in place of all synthetic off-farm inputs. With a focus on holistic health management and a biologically active soil, organic poultry farming strives to improve the health of the birds and environmental sustainability. Using this agricultural technique, all pesticides, hormones, antibiotics, and other contaminants are completely removed from the final product. These qualities result in great demand for organic products among the educated and health concerned consumer population.



Figure b

Basic Requirement for organic poultry production

- **Selection of breed or strain:** Local or native breeds are preferred over exotic breeds while farming organically. In contrast to genetically modified breeds, which are prone to numerous diseases, these breeds can adapt to the natural environment with ease and are disease-resistant. Natural breeding techniques are preferred over artificial ones. Purchase the parent stocks from organizations that have received an organic certification.
- **Housing management:** The fundamental goal of organic housing is to allow birds to express all of their natural behavior with little stress. The birds should have adequate protection from predators, access to sunlight, good drinking water, shade, and open spaces for exercise. Birds should be raised in a deep litter system with the proper clean and dry bedding material. The floor of the chicken coop should be made of solid structure and covered with litter materials like straw, wood shavings, sand, and turf. Paper-based bedding is also allowed by organic standards. In the organic meat industry, they must

typically be grown for a period of 81 days. Poles and chicken wire on the walls and roof can be used to completely enclose the foraging area. A few open spaces with plants and grasses offer the birds green forage. Running while foraging on a lawn area helps manage external factors, and green forage enhances the quality of egg yolks. In organic farming, an adult laying bird should have a minimum of 2 feet per bird in a confined space and 3 feet per bird in a foraging area, or 5 square feet per bird. Litter must always be kept dry. Enough space should be provided for watering and feeding to prevent competition among the birds. To prevent diseases spread by contaminated water in livestock, regular water quality testing should be done. Artificial light can be used in farms according to the time prescribed by the certification agencies. Additionally, housing should be rat proof and well ventilated. Beak trimming and debeaking are often prohibited practices, but some certifying organizations still allow them. The upper beak shouldn't be debeaked if more than 5mm of it is removed.



Figure c

- Nutritional management:** Feeding birds with high-quality, organically grown food is advised. The meal should be provided in a way that allows the birds to express their natural eating habits and digestion requirements. The diet can be supplemented with vitamin and mineral supplements. As a source of protein, we can use organic peas, beans, and rapeseed. Peas can be added at a rate of 250-300g/kg for meat birds and 150-200g/kg for laying hens. Because sprouted pulses are a good source of vitamins, they should be utilized instead of synthetic amino acids whenever possible. Feeding organic soybeans, skim milk powder, potatoes, maize, gluten, etc. can satisfy the demand for essential amino acids. Additionally, prebiotics, probiotics, and non-synthetic enzymes should be included in the diet. Moreover, excessive feeding should be prevented in farms.
- Health management:** The organic farming adage is “prevention is better than cure”. The farmers should employ preventative health care techniques like good sanitation and disinfection to reduce the occurrence and spread of parasites and

disease, establish suitable housing and pasture conditions, provide enough nutrients to meet the birds' nutritional needs, and choose birds that are resistant to common diseases. Use of antibiotics should be avoided in case of organic farming. Vaccinations are permitted only when the diseases are expected to be a problem or cannot be cured by other managemental practices. By employing prebiotic, probiotic, and plant extracts, the health and growth status of birds can be enhanced. In organic farming, growth promoters are strictly forbidden. Researchers' interest in the presence of various natural substances, such as medicinal herbs, as a new class of additives to animal and poultry feeds, has increased in response to the recent ban on the use of antibiotic growth promoters in poultry feeds. These additives have positive properties such as antioxidant, antimicrobial, and antifungal as well as immune modulatory and anticoccidial effect. Aloe vera, fenugreek, astragalus, moringa oleifera, cinnamon, tulsi, garlic, pepper, and other herbs have been provided by researchers. Herbal remedies are thought to be risk-free, affordable, eco-friendly, and without any side effects. They also help with digestion.



Figure d

- Waste management:** Excreta and manure from organic poultry farm and its disposal is very easy in such a way that degradation of soil and water is minimum.
- Transportation and Slaughter:** In order to prevent stress, injury, hunger, malnutrition, pain, and sickness, the bird must be transported with extreme caution. Water and food should be

provided periodically while being transported. The organic council's guidelines for hygienic slaughter and packaging of poultry products should be followed. In order to practise organic farming, there must be a separate room for slaughter, washing, bleeding, and feather removal. Chemical use is absolutely forbidden when packing.

- **Record keeping:** In organic poultry farming, it's critical to keep records in order to provide them to the certifying organisation for inspection. For future reference, it is advised to consistently document all actions, observations, and inferences.

Types of records maintained are as following

- Registers indicating source of animals purchase.
- Register indicating Source of organic feed ingredients.
- Register of feed supplements and feed additives purchased.
- Organic feed formulation record
- Treatment records
- Records of breeding details
- Organic poultry pasture record
- Inventory of health care products, sanitation products
- Monthly flock records of organic egg layers, organic meat poultry, organic poultry/slaughter/sales
- Summary and monthly organic egg packing/sales record
- Other management records and materials used
- **Conversion period:** In organic poultry farming, the conversion of both the land and the poultry should ideally occur simultaneously to ensure adherence to organic principles. The organic council provides specific guidelines for land conversion, stating that a farm must undergo a minimum 12-month conversion phase before raising poultry that can be considered as part of the organic process. The conversion phase begins from the initial inspection date, which marks the starting point for the transition towards organic practices.

It is important to note that if the land and poultry conversion cannot be carried out simultaneously, there are additional requirements that need to be met. The organic board specifies that the poultry must be raised for a specific period of time as determined by the regulations before the products can be sold as organic. This ensures that the poultry has been subjected to organic management practices for the required duration, even if the land conversion process takes longer.

By following these guidelines and adhering to the conversion requirements, organic poultry farmers can ensure that their products meet the standards set by the organic council. This helps to maintain the integrity of organic poultry farming and provides consumers with assurance that the products they purchase have been produced in accordance with organic principles.

Advantages of organic poultry farming

- **Sustainable use of resources:** Organic poultry farming promotes sustainable practices by utilizing resources efficiently and minimizing environmental impacts.
- **Space requirement:** Organic poultry farming requires less space compared to conventional methods, as birds have access to outdoor areas. Despite this, the growth rate of organic birds is relatively higher.
- **Reduced chemical usage:** One of the key advantages of organic poultry farming is the minimal or complete absence of chemicals. Organic poultry farmers avoid the use of pesticides, hormones, and antibiotics, promoting healthier and natural farming practices.
- **Lower toxins:** Organic chicken contains fewer toxins compared to commercially raised poultry. This is because organic chickens are not exposed to hormones, antibiotics, or trace amounts of pesticides commonly found in conventional poultry.
- **Organic waste recycling:** Organic poultry farming allows for the recycling of organic waste. By implementing composting and recycling methods, farmers can convert poultry waste into valuable fertilizers for their crops, promoting a closed-loop system.
- **Health benefits:** Organic chicken is considered healthier than non-organic chicken. It is known to have a better taste and nutritional profile. Additionally, organic farming practices help reduce the spread of antibiotic-resistant bacteria, promoting overall food safety [1-3].

Constraints of organic poultry farming

- **Lack of knowledge:** Many poultry farmers have limited knowledge about organic poultry farming practices, which can hinder their ability to transition successfully into organic production.
- **Consumer awareness:** There is a lack of awareness among consumers about the benefits of organic poultry products, which may impact the demand for organic poultry.
- **Inadequate supporting infrastructure:** Organic poultry farming requires proper infrastructure, including access to financial support, certification agencies, and marketing channels. The absence of these supporting structures can pose challenges for organic poultry farmers.
- **Training facilities:** The availability of adequate training facilities for poultry farmers to learn about organic practices is limited, which can hinder the adoption of organic poultry farming methods.

- **Stringent regulations:** Strict sanitary conditions and quality standards followed by developed countries pose challenges for small and marginal poultry farmers in India to enter the organic export market.
- Lack of government support: The absence of government subsidies and support for organic production can make it financially challenging for poultry farmers to transition to organic farming practices.
- Despite these constraints, organic poultry farming offers numerous benefits and with proper support, awareness, and infrastructure, it can contribute to sustainable agriculture and provide healthier food options to consumers.

Conclusion

Organic poultry farming has emerged as a promising approach in recent years, driven by concerns over the quality of egg and meat products and the desire for sustainable resources use, environmental protection, and animal welfare. This farming method focuses on promoting the health of agroecosystems, biodiversity, and soil biological activity through the use of on-farm agronomic, biological, and mechanical methods.

To successfully practice organic poultry farming, certain requirements must be met. These include selecting local or indigenous breeds that are disease resistant and can adapt to natural environments. Proper housing management is crucial, providing birds with ample space, protection from predators, access to sunlight, clean water, and areas for exercise and foraging. Nutritional management involves feeding birds with high-quality, organically grown foods that meet their natural eating habits and digestive requirements. Emphasis is placed on preventive health management techniques, such as good sanitation, suitable housing and pasture conditions, and the use of antibiotics and growth promoters.

Organic poultry farming offers numerous advantages, including sustainable resource utilization, improved bird health, and the production of healthier and safer products for consumers. The method also allows for the recycling of organic waste and requires less space compared to conventional farming. However, there are challenges that need to be addressed, such as the lack of knowledge and awareness among poultry farmers and consumers, inadequate infrastructure and support from certifying agencies and marketing channels, limited training facilities, and the strict sanitary and quality requirements for export.

To overcome these constraints and promote organic poultry farming, it is essential to provide proper training and education

to poultry farmers, raise awareness among consumers about the benefits of organic products, develop supportive infrastructure, including financial support and marketing channels, and encourage government subsidies for organic production. By addressing these challenges, organic poultry farming can contribute to a sustainable and environmentally friendly agricultural system while meeting the growing demand for organic and healthier food products.

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