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Organic Poultry Production and Certification in India

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Abstract :

Organic poultry production is a sustainable farming system that prioritizes natural practices, animal welfare, and ecological balance. Unlike conventional methods, it prohibits synthetic inputs such as antibiotics, hormones, and genetically modified feed, instead relying on certified organic diets and free-range environments that allow birds to express natural behaviors. Central to this system is a commitment to humane treatment, banning practices like beak trimming and forced molting, while favoring slower-growing breeds better suited to outdoor conditions.

From a consumer perspective, organic poultry products are valued for being chemical-free and ethically produced, aligning with growing demand for sustainable food. The system also contributes to soil fertility through organic manure, creating a closed-loop cycle that benefits both crops and livestock. Despite challenges such as higher costs, stricter certification requirements and increased disease risks, farmers employ preventive health strategies, biosecurity measures, and natural remedies to maintain flock health.

Certification under India's National Programme for Organic Production (NPOP) ensures compliance with international standards, covering feed, welfare, health management and environmental sustainability. Farms undergo rigorous application, inspection, and record-keeping processes to maintain certification, with annual reviews ensuring ongoing adherence.

Overall, organic poultry farming represents an ethical and environmentally responsible alternative to intensive production systems, offering high-quality meat and eggs while supporting biodiversity, ecological resilience and consumer trust in sustainable agriculture.

Key words: Organic poultry production, Principles, NPOP Certifications, Benefits, Challenges.

1. Introduction

Organic poultry production is a farming system that emphasizes natural practices, animal welfare, and ecological sustainability. Unlike conventional poultry farming, it prohibits the use of synthetic inputs such as antibiotics, hormones, and genetically modified feed. Birds are raised in free-range environments where they can express natural behaviors, and their diet consists of certified organic feed free from chemical additives. This approach aligns with the broader principles of organic agriculture, which focus on maintaining

soil health, biodiversity, and ecological balance.

A defining feature of organic poultry farming is its commitment to animal welfare. Birds are not confined to cages but instead have access to outdoor areas with vegetation, allowing them to forage and move freely. Practices such as beak trimming or forced molting are prohibited, ensuring that the natural well-being of the flock is prioritized. Additionally, organic standards often require the use of slower-growing breeds, which are better suited to free-range conditions and less prone to health issues associated with rapid growth. [11]

From a consumer perspective, organic poultry products are valued for being free from routine antibiotics and synthetic chemicals. This not only appeals to health-conscious buyers but also supports growing demand for ethically produced food. Organic poultry manure further contributes to sustainable farming by enriching soil fertility, creating a closed-loop system that benefits both crops and livestock. As a result, organic poultry production has become a significant segment of the organic food market, particularly in regions such as North America and Europe. [5]

Despite its benefits, organic poultry farming faces challenges such as higher production costs, stricter certification requirements, and increased disease risks due to the absence of routine antibiotics. Farmers must rely on strong biosecurity measures, careful flock management, and preventive health practices to maintain productivity. Nevertheless, the sector continues to expand globally, driven by consumer demand for sustainable and ethically produced food, making organic poultry production an important contributor to the future of agriculture.

Organic poultry farming has gained significant popularity in recent years as consumers increasingly prioritize sustainable and environmentally friendly food choices. Organic poultry production is an alternative livestock system that emphasizes natural rearing, animal welfare, environmental sustainability, and chemical-free products. It emerged as a response to intensive poultry farming, which relies heavily on antibiotics, synthetic feed additives, and high stocking density.

Organic systems aim to produce safe, high-quality meat and eggs while maintaining ecological balance and animal health.[22] ,[9]

1.1. Concept of organic poultry farming

The poultry sector of modern India has “a unique production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological activity, and this is accomplished by using on-farm agronomic, biological and mechanical methods in exclusion of all synthetic off-farm inputs”. The main aim of organic farming is to establish and maintain soil – plant, plant-animal and animal- soil interdependence and to produce a sustainable agro-ecological system based on the local resources. Organic farming does not require external inputs (i.e. fertilizer, antibiotics etc.) but prominently rely on ecosystem management. The agriculture cycle is in complete without the involvement of domesticated livestock that play a major role in cycle under the organic livestock production.

The establishment of organic animal/ poultry husbandry requires a specific period called as “conversion period”. This period is the time taken between the start of the organic management on farm and certification of livestock farm and its product. Changing from conventional to organic management system for livestock enterprises requires a careful and gradual approach. In organic poultry farming the preference should be given to local breeds. Animal must be born to organically managed dams if they are to be slaughtered for organic meat production.[6] Further, maximum care should be taken to provide environment where the birds can exhibit their natural behavior.

2. Principles of Organic Poultry Farming

Organic poultry production is based on the following principles:

a) Use of organic feed
b) Animal welfare
c) No use of synthetic inputs
d) Environmental sustainability
e) Disease prevention through natural methods

a) Organic Feed

One of the fundamental principles of organic poultry farming is the use of certified organic feed. This feed is sourced from organic crops and contains no synthetic additives or GMOs. It typically consists of a balanced blend of grains, legumes, seeds, and other organic ingredients to meet the nutritional requirements of the chickens.

- Birds must be fed **certified organic feed** free from synthetic pesticides, herbicides, GMOs, and animal by-products.
- Balanced diets include organic grains, legumes, and seeds.
- No artificial additives are allowed.

b) Animal Welfare

Animal welfare is a central pillar of organic poultry production, ensuring that birds are raised in environments that allow them to express their natural behaviors. Unlike conventional systems that often rely on cages and high stocking densities, organic standards mandate free-range housing with outdoor access, enabling birds to forage, dust-bath, perch, and socialize. These practices not only reduce stress but also promote healthier flocks by encouraging physical activity and natural immune resilience.

The expression of natural behaviors is closely tied to the ethical principles of organic farming. Birds are provided with sufficient space, natural light, and enriched environments that support their instinctive needs. Practices such as beak trimming, forced molting, or confinement are prohibited, reflecting a commitment to humane treatment. By prioritizing behavioral freedom, organic poultry farming aligns with consumer expectations for ethically produced food and strengthens the link between animal welfare and product quality.

From a scientific perspective, welfare-focused management contributes to better overall health outcomes. Birds raised in organic systems tend to show lower incidences of stress-related disorders and behavioral abnormalities compared to those in intensive production. Access to outdoor areas also improves bone strength and reduces leg problems, particularly in slower-growing breeds that are favored in organic production. Thus, welfare and natural behavior expression are not only ethical imperatives but also practical strategies for maintaining flock health and sustainability.

In summary, organic poultry farming integrates welfare standards with ecological principles, ensuring that birds live in conditions that respect their natural instincts. This approach enhances both the ethical value and the quality of poultry products, making welfare and behavior expression defining features of organic production systems.

- Poultry must have adequate space, ventilation, and clean water.
- Access to outdoor areas for foraging, dust bathing, and natural behaviors is mandatory.
- Stocking density is limited to avoid overcrowding.

c) No Synthetic Inputs

One of the key principle of organic poultry farming. Prohibits routine antibiotics, focusing on hygiene, health monitoring, vaccinations, and natural remedies for disease prevention and treatment. The minimal or complete absence of chemicals. Organic poultry famers should avoid the use of pesticides, growth hormones and synthetic antibiotics, promoting healthier and natural farming practices.

- Antibiotics, growth hormones, and routine synthetic drugs are prohibited.
- Natural remedies (homeopathic, herbal, or Ayurvedic) are preferred for disease prevention.
- Preventive health management is emphasized over reactive treatment.

d) Environmental Sustainability

Organic farming sustains ecosystem and human health through ecological processes, biodiversity, and local cycles, minimising harmful inputs. 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. Aim to minimise pollution, conserve resources, and recycle waste, enhancing environmental health and biodiversity.

- Farming practices must enhance biodiversity, soil fertility, and water conservation.
- Renewable resources and local production systems are encouraged.
- Pollution and greenhouse gas emissions should be minimized.

e) Disease Prevention And Health Management

In poultry farming, preventive measures are prioritized to maintain bird health without the use of antibiotics or synthetic medications. Here are some common practices for disease prevention and health maintenance:

i) Biosecurity: Organic farms implement strict biosecurity measures to minimize the risk of disease introduction. This includes controlled access to the farm, regular cleaning and disinfection of facilities, and monitoring of visitors and equipment.

ii) Natural Supplements: Natural supplements such as probiotics, prebiotics, and herbal remedies are used to support the immune system and promote gut health in chickens.

iii) Vaccination and Natural Remedies: Vaccination is permitted in poultry farming to prevent specific diseases. In case of illness, natural remedies and treatments, such as herbal extracts or homeopathic remedies, may be used under veterinary guidance.

3. Key features of organic poultry production

According to recent scientific reviews, major features include:

i) **Housing and space**;-

- **Outdoor access for natural movement and foraging-** outdoor access is an essential aspect of organic poultry farming, allowing chickens to engage in natural behaviors and improve their overall health. Outdoor areas are designed to provide sufficient space for foraging, dust bathing, and social interactions among the birds. These practices improve bird welfare and allow natural behavior.
- **Low stocking density to reduce stress** Organic poultry farms allow birds to move freely**,** reducing stress, aggression, and feather pecking. Unlike caged systems, free-range environments promote natural foraging and exercise.
- **Natural lighting and ventilation-** Organic poultry farms provide spacious and well-ventilated housing facilities for the chickens Sunlight is essential for vitamin D synthesis, which strengthens bones and immunity. Organic birds enjoy natural daylight exposure**,** leading to better overall health**.**

ii) Breed Selection

Use of slow-growing or indigenous breeds: Local or inventive breeds are preferred over exotic beeds while farming organically. In contrast to geneically modified breeds, which are prone to numerous disease, 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 stock from organizations certified as organic. [1]

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iii) **Natural behaviour:- Provision of perches and litter materials**

Providing comfortable nesting areas and elevated perches reduces stress and enhances egg production efficiency

- **Ban on mutilations** (e.g.,debeaking) Conventional farms often use forced moulting (feed withdrawal) to manipulate egg production cycles. Organic farms follow natural moulting cycles**,** ensuring ethical treatment and healthier birds.

iv) **Organic feed and clean water supply-** Supplementation with non-GMO ingredients like probiotics or omega-3 fatty acids can further enhance poultry health. A balanced diet comprising of 60-70% organic grains, 20-30% fruits and vegetables, and 10-15% protein sources will provide the necessary nutrients for optimal growth and production. Always choose organic feeders that meet your local

regulations to avoid any potential issues. (Zaheer Udeen, 2025)

4. Certification Standards

Implementation of Organic Certification (2001 onwards): Post-NPOP, organic certification for poultry farms became available, allowing for the marketing of certified organic poultry products. Indian regulations for organic poultry farming ensure products meet standards for animal welfare, feed, health, and environmental impact, promoting organic agriculture and food safety.

Key components include the NPOP, certification processes, and established organic poultry standards.

a) NPOP

The NPOP sets India's organic farming standards, including for poultry, covering practices, processing, labelling, and certification. Aligned with international norms, NPOP aids in exporting Indian organic products and is managed by Agricultural and Processed Food Products Export Development Authority (APEDA), under the Ministry of Commerce and Industry.

b) Certification Process

Organic certification under NPOP requires farms to submit an organic management plan, undergo inspections by accredited bodies, and meet record-keeping and testing standards to verify no prohibited substances are used. Successful certification grants the right to use the India Organic logo, indicating NPOP compliance.

1. **Application**: Farms apply to an NPOP-accredited body, submitting an organic management plan detailing compliance with organic standards.
2. **Review**: The certification body reviews the application and management plan against NPOP standards, focusing on feed, health practices, animal welfare, and environmental measures.
3. **On-site Inspection**: A satisfactory review leads to an on-site inspection to verify application details and check adherence to standards.
4. **Inspection Report and Corrective Actions**: Post-inspection, a report is issued. Any non-compliance must be rectified within a set period.
5. **Certification Decision**: Compliance and corrective action completion lead to a certification decision. Approval grants the right to market products as certified organic.
6. **Issuance of Certificate and Use of Logo**: Certified operations receive a certificate and can use the India Organic logo on products.

c) Specific Standards for Organic Poultry Farming

The standards for organic poultry farming under NPOP emphasise natural living conditions for poultry, organic feed, health management without synthetic chemicals, and sustainable environmental practices. Key aspects include:

- **Feed and Nutrition**: Organic poultry is fed with organic feed free from synthetic pesticides, fertilisers, GMOs, and animal by-products.
- **Animal Welfare**: Birds have outdoor access for natural behaviours, with cage-free living, adequate space, ventilation, and natural light.
- **Health Management**: Synthetic antibiotics and growth hormones are banned; emphasis is on vaccination, natural remedies, and hygiene, with regulated use of allopathic drugs.
- **Environmental Sustainability**: Organic farms must sustainably manage waste, reduce pollution, and conserve resources. [2]

5. Maintaining Compliance.

The certification process for organic poultry farming in India is a structured procedure designed to ensure that farms comply with the NPOP standards. This process is crucial for maintaining the integrity of organic

products and involves several key steps, from application to inspection and certification. Maintaining compliance is an ongoing requirement to ensure that organic farms continue to adhere to the established standards.

- Eggs and meat can only be labeled “organic” if birds are raised under certified organic conditions.
- Hens must be fed organic feed for at least six months before eggs are certifiable**.**

Maintaining Compliance

- **Annual Inspection**: Operations must have yearly inspections to ensure continuous adherence to organic standards.
- **Record-Keeping**: Certified entities must keep detailed records of organic practices, including feed sources and health treatments, for inspection review.
- **Reporting Changes**: Significant operational changes must be reported to ensure on-going compliance with organic standards.
- **Renewal of Certification**: Certifications have a set validity period and require renewal, which may involve compliance review and inspection.

These processes uphold the integrity of organic products, ensuring they meet consumer expectations and maintain the organic label’s trustworthiness. Certifications are vital for market access and consumer trust in India, affirming product safety, quality, and sustainability in a health-conscious and environmentally aware market. [2]

6. Advantages of Organic Poultry Production

a) Animal Welfare

Birds express natural behaviour- Providing perches encourages natural resting behaviour, which leads to happier, healthier birds and can result in increased egg production. Pecking and scratching are the part of normal feeding behavior, and their housing system needs to provide appropriate space for these activities. They usually feed at the same time with the acoustic signalsof pecking and scratching acting as a stimulant forother hens. (**Lampkin, 1997**).

Reduced stress and better health-

b) Human Health 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.

Chemical-free meat and eggs, Reduced antibiotic resistance risk (Amritha Udayan *et al,* 2023)

c) Environmental Benefits

Lower pollution- Proper waste management practices i.e composting, vermin-compost etc. aim to minimise pollution, conserve resources and recycle waste, enhancing environmental health and better biodiversity

d) Economic Benefits

Premium price for organic products Growing consumer demand

Organic poultry is considered a sustainable production system.

7. Limitations and Challenge

Higher production cost

Lower productivity compared to commercial poultry Disease management without antibiotics Certification and regulation issues

Limited availability of organic feed

Organic systems require high management skills and knowledge.

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