



Tirumala Tirupati Devasthanams

శ్రీ వేంకటేశ్వర కళాశాల

Sri Venkateswara College

(University of Delhi)

NAAC Grade A+

**SRI VENKATESWARA COLLEGE
(UNIVERSITY OF DELHI)**

EVENT REPORT

NAME OF THE EVENT: EDUCATIONAL VISIT REPORT: POULTRY FARM VISIT			
DATE: 1 April 2023	DEPARTMENT: Zoology	COMMITTEE/SOCIETY	COORDINATORS' NAME Dr. P.Jayaraj
TIME 10: AM to 1:00 PM	VENUE Lochab Farms Bijwasan Dwarka Expressway, New Delhi, 110061	NUMBER OF PARTICIPANTS 17	NATURE: Outdoor
FINANCIAL SUPPORT/ASSISTANCE (if any):	nil		

BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	EDUCATIONAL VISIT REPORT: POULTRY FARM VISIT
OBJECTIVES	<p>The objectives of a visit to a poultry farm for undergraduate students are to provide practical insights into the poultry industry, enhance their understanding of poultry production systems, and expose them to various aspects of poultry management. The visit aims to familiarize students with the day-to-day operations, such as housing, feeding, and biosecurity measures, as well as the breeding and hatching processes.</p> <p>It also aims to educate students about the importance of animal welfare, sustainability, and food safety practices in the poultry industry.</p>
METHODOLOGY	Visit to Poultry farm

INVITED SPEAKERS WITH AFFLIATION DETAILS (IF ANY)	-
OUTCOMES	By engaging in hands-on experiences and interacting with industry professionals, students can gain a comprehensive understanding of poultry farming and its significance in the agricultural sector.

PROOFS & DOCUMENTS ATTACHED (Tick mark the proofs attached):

1 Notice & Letters ✓	2 Number of Participants & Name of participants ✓	3 Video clip	4 Photos ✓	5 Feedback Form & analysis
6 News clip with details	7 Sample Copy of the Certificate	8 Posters/ Invites	9 Event report Attested by Event Coordinator & IQAC Coordinator ✓	10 Any other document

IQAC Document No: IQAC/SVC/2022-2023/Zoo/05	Criterion No:
Departmental file no: Zoology/2022-2023/05	IQAC file No: SVC/2022-23

NAME OF TEACHER & SIGNATURE	NAME OF HEAD/ COMMITTEE INCHARGE & SIGNATURE	IQAC COORDINATOR (SEAL & SIGNATURE)

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For Reference

Criterion I	Curricular Aspects (planning & Implementation)	Criterion V	Student Support & Progression
Criterion II	Teaching Learning & Evaluation	Criterion VI	Governance
Criterion III	Research, Innovations & Extension	Criterion VII	Institutional Values & Best Practices
Criterion IV	Learning Resources and Infrastructure		

DEVELOPMENTAL BIOLOGY

EDUCATIONAL VISIT REPORT: POULTRY FARM VISIT

DATE OF VISIT: 1 April 2023

NAME OF POULTRY FARM: Lochab Farms

LOCATION OF POULTRY FARM: Bijwasan Dwarka Expressway, New Delhi, 110061

Submitted to: Dr. Perumal Jayaraj

Students who went for the visit:-

1. Srianshu Kumar Panda
2. Anushka Puri
3. Prabhjot Kaur
4. Bibham Tiwari
5. Varnika Rajain
6. Paritosh Sharma
7. Deepanshu
8. Madhav Gupta
9. Md Parwez Alam
10. Ashutosh Sharma
11. Aditi Singh
12. Gaurav Dutta
13. Bhavish Saini
14. Madhumanti Das
15. Soniya
16. Tanya Goel
17. Kunal Yadav





Group of Students that went to Poultry Farm



Hens and Ducklings seen in Poultry Farm



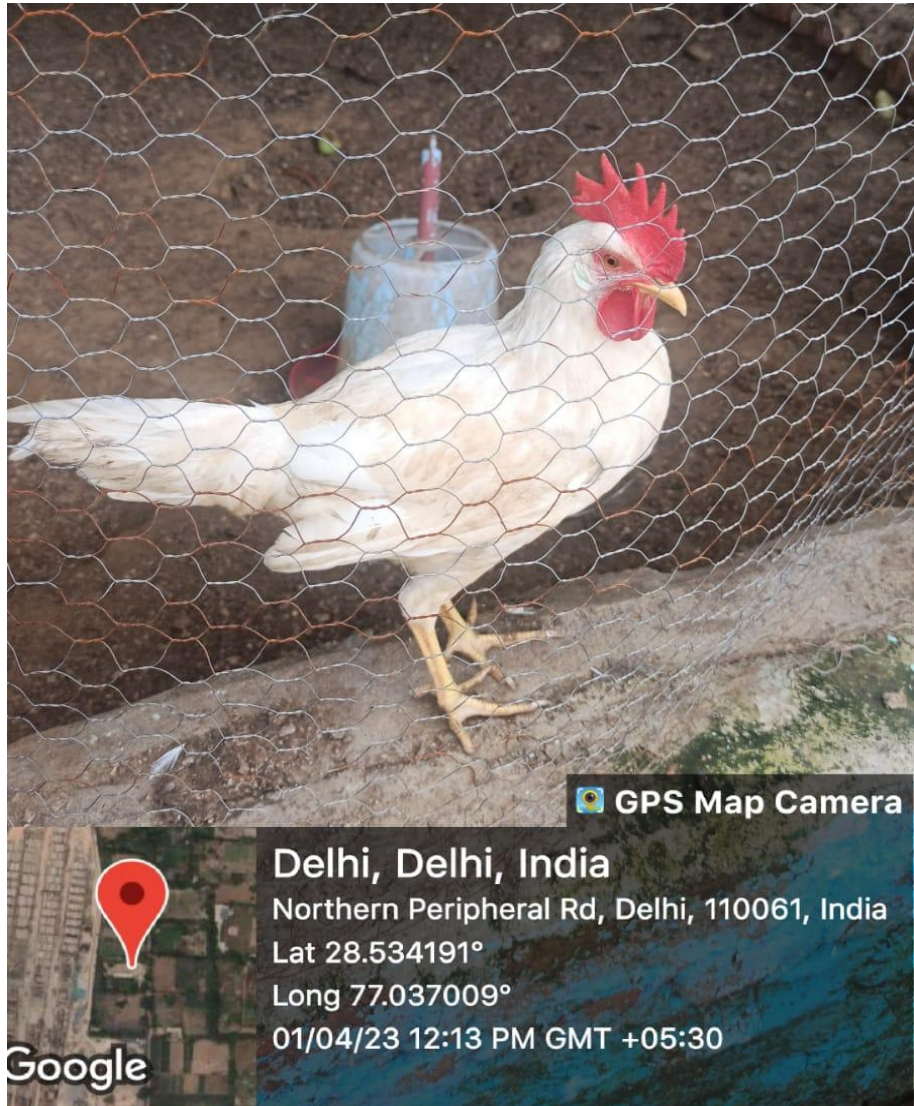
Eggs seen in Coop



Hens seen in Poultry Farm



The board of Poultry Farm



Geo-tagged Photo of Poultry Farm



Pictures of Hens and Birds inside the Coop



Group of Students outside the Poultry Farm

POULTRY FARMING IN INDIA STRUCTURE

- Why poultry farming?
- Strengths of poultry farming
- System of rearing
- Care and management of birds
- Summary

Poultry Farming Growth

- Poultry farming worldwide has transformed into a techno-commercial industry from the status of backyard farming since four decades. But, the scenario has changed from backyard farming into a commercial business.
- Poultry farming is the fastest growing sector in agriculture and livestock farming business globally including India.
- The annual growth rate is 8-10% in egg production and 10-12% in the broiler farming.

WHY POULTRY FARMING?

- Suitable for landless/marginal farmers - small scale or medium-scale depending upon the availability of infrastructure, inputs and finance.
- Ideal for a great full/part time employment purpose
- Ideal for students and women occupation - for production of egg and meat during the spare time.
- Can run on a small scale
- Subsidiary continuous income generation
- Availability of high quality of productive local and foreign breeds
- Producing high quality of protein as egg and poultry meat
- Great demand of poultry products

Ideal for mixed farming with fish, paddy, and pig farming – popular in north-eastern states.

Poultry farming is an integral part of mixed farming system in our country.

- Nutritional security optimizer

STRENGTHS OF POULTRY FARMING

- Poultry farming requires minimum investment when reared on a small scale.

However, for a large scale or commercial basis, it needs huge investment.

- Less space for rearing when compared to other livestock species
- Low cost effective feeds and vaccines – these two form the basic input for poultry farming which have significant effect on the profitability of farm.
- Adequate Research and Development (R&D) support – since poultry farming is a complex job and many factors affects the productivity of birds.
- Easy bank loan financing to poultry schemes – Most banks are encouraging farmers to have financial support in the form of loan. Both Central and state governments also support poultry farming in the form of many government schemes and subsidies.
- Quick return of investment – For any farming, we need quick return. In poultry also, since the life span of the birds are limited, it is easy to take quick returns especially in terms of broilers wherein we get the returns within a maximum of 8 weeks. However, in layers, the investment is for a longer period where we have to require the birds for 6 months without getting any return. But, after 6 months, we can get returns till 72 weeks of age in the form of eggs.
- Easy storage and marketing – is very important since egg and meat are perishable products.

- Poultry manure - Excellent organic manure and rich in nutrients and can be used in agriculture fields.
- Availability of large numbers of egg and poultry meat consumers
- Egg and meat free from adulterants
- Created a profitable business
- Such a business that can never dry up

Poultry Raising:

Starting a commercial poultry farming in India is not an easy task. It needs a proper knowledge and on hand training by a poultry expert. Three systems of poultry farming in India.



Poultry Raising

Extensive System or Free Range System

- The birds are left free outside and provided house or shelter only during night.
- No specific housing, equipment, feeding and for that matter, disease control measures are followed

Semi intensive System

- A separate shelter or small house for the birds during the night and a run required under this system
- This shelter will be fenced all round giving sufficient area for the birds to graze during the day
- Supplementary feeding is also required
- Relatively cheaper than the intensive system
- Requires less manpower
- Needs low investment



Semi-intensive system of housing

Intensive System of Rearing:

- About 74% of total poultry meat and 68% of total poultry eggs under intensive poultry farming method

A highly efficient system which saves, land, feed, labour and other resources and increases production

- In this system, the environment is fully controlled by the farmer.
- So, it ensures continuous production throughout the year in any environment and seasons.



Intensive System of Rearing

Intensive system Deep Litter System (Bare floor covered with saw dust):

To avoid cleaning of the floor every day, material which can absorb moisture is spread on the floor before leaving the birds on it. The material which is spread to absorb moisture is

called as “Litter material”. Most of the broilers in India are being reared under this system.

- Deep-litter keeps cool during summer and warm during winter.
- They can move freely, also adds to their comfort.
- Birds derive certain un-identified growth factors.
- There will be no incidence of swellings or damaged breast region in case of broilers.
- Usually, there will be no problem of ammonia accumulation and house-flies in a well-managed deep-litter flock.
- Incidence of broken eggs is very minimal.
- Initial investment is less when the land cost is low.
- Welfare requirements of the birds are taken care of.



Intensive System (Deep Litter System)

Battery Cage Farming

- Increase in cost of land and availability and wages of labour has made litter system costly. Therefore, an alternate system in which birds are totally restricted to meshwork compartments (cages) was introduced.
- This saves the cost of litter material, reduces labour requirement and building cost.
- Most of the layers are grown in cages all over the world.



Battery Cage Farming

POULTRY FARM EQUIPMENTS

I) Incubation equipments:

- 1) Setter: It is a machine in which proper temperature, humidity and turning are provided for the first 19 days of incubating chicken egg.
- 2) Hatcher: It is similar to that of setter but turning mechanism is not available and the trays are designed to hold the newly hatched chicks. Here, the eggs are placed for the last three days of incubation. Various styles of setter and hatcher found around the world include,
 - walk-in or corridor incubators
 - tunnel type incubators
 - vertical fan incubators
- 3) Compressed air systems: Some incubators require compressed air to actuate the turning mechanism for the racks of eggs. A large central compressed air system is needed for blowing down dust and other dry cleaning in the hatchery.
- 4) Emergency standby electric plants: When there is a failure in the local electrical supply, the incubators must have a secondary source of electricity. Therefore, a standby electrical generator located on site, generally within, or next to the hatchery building is imperative. The standby electrical generator should have the capacity to support the all essential services of the hatchery.
- 5) Hatchery automation equipments:
 - hatchery tray washers
 - waste removal systems
 - egg transfer machines
 - chick box washers
 - rock washers
 - high pressure pump

FARMING CARE AND MANAGEMENT

- Provide them nutritious feed and clean water - For producing high quality animal protein in the form of egg or meat, the birds have to be fed with a scientifically balanced feed as per the requirements either in the form of concentrate mixture or in the form of mash or pellet feed.
- Clean their house on a regular basis. Suppose the birds are reared in deep litter system, continuous raking of the bedding material is required so that the litter may not get wet or moist and converted into a cake due to excretion of bird droppings.
- Always take good care of your birds.

Learn more about various types of poultry diseases, symptoms, and treatment. Always consult veterinary doctor or poultry experts for identification and treatment of diseases. It is essential give proper medicine at the right time to avoid spreading of diseases as the disease can be easily spread from one bird to the another which may result in affecting the entire flock within no time. Majority of viral and bacterial diseases, once affects the flock, we have to provide medicine. Medicines are also given at a prophylactic dose to prevent occurrence of disease.

- Vaccinate the birds timely. Following regular vaccination schedule will help in preventing occurrence of many viral and bacterial diseases.
- Strict hygiene, proper sanitation and biosecurity measures is required for prevention of diseases.

TYPES OF POULTRY FARMING

- 1.Chicken
- 2.DUCK AND GEESE
- 3.TURKEYS
- 4.GUINEA FOWL AND SQUAB

HOUSING MANAGEMENT

General layout of poultry house-

Poultry house should be located away from residential and industrial area. It should have proper road facilities. It should have basic amenities like water and electricity. Availability of farm labourers at relatively cheaper wages. Poultry house should be located in an elevated area and there should not be any water-logging. It should have proper ventilation. Layout should not allow visitors or outside vehicles near the sheds. The sheds should be so located that the fresh air first passes through the brooder shed, followed by grower and layer sheds. This will prevent the spread of diseases from layer houses to brooder house. There should be a minimum distance of 50-100 feet between chick and grower shed and the distance between grower and layer sheds should be of minimum 100 metre. The egg store room, office room and the feed store room should be located near entrance to minimize the movement of people around the poultry sheds. The disposal pit and sick room should be constructed only at the extreme end of the site.

DIFFERENT TYPES OF HOUSING

1. DEEP LITTER

1. In this system the birds are kept in litter floor. Arrangement for feed, water and nest are made inside the house. Fresh litter materials spread on the floor. The birds are kept on suitable litter material of about 3" to 5" depth. Usually paddy husk, saw dust, ground nut hulls, chopped paddy straw or wood shavings are used as litter materials. This arrangement saves labour involved in frequent cleaning of faecal matter (droppings), however it needs periodical stirring. The litter is spread on the floor in layers of 2" height every fortnightly till the required drying is achieved.



Birds roaming around in poultry farm



Arrangement of food and water for the Birds

ADVANTAGES

Vit B2 and Vit B12 are made available to birds from the litter material by the bacterial action. The welfare of birds is maintained to some extent. The deep litter manure is a useful fertilizer. Lesser nuisance from flies when compared to cage system.

DISADVANTAGES

Because of the direct contact between bird and litter, bacterial and parasitic disease may be a problem. Respiratory problems may emerge due to dust from the litter. The cost of litter is an additional expenditure on production cost. Faults in ventilation can have more serious consequences than in the cage system.

2.CAGE SYSTEM

This system involves rearing of poultry on raised wire netting floor in smaller compartments, called cages, either fitted with stands on floor of house or hanged from the roof. It has been proved very efficient for laying operations, right from day-old to till disposal. At present, 75% of commercial layers in the world are kept in cages. Feeders and waterers are attached to cages from outside except nipple waterers, for which pipeline is installed through or above cages. Auto-operated feeding trolleys and egg collection belts can also be used in this rearing system. The droppings are either collected in trays underneath cages or on belts or on the floor or deep pit under cages, depending on type of cages.

Advantages

- Minimum floor space is needed.
- More number of eggs per hen can be received.
- Less feed wastage.
- Better feed efficiency.
- Protection from internal parasites and soil borne illnesses.

- Sick and unproductive birds can be easily identified and eliminated.
- Clean eggs production.
- Vices like egg eating, pecking is minimal.
- Broodiness is minimal.
- No need of litter material.
- [Artificial Insemination](#) (AI) can be adopted.

Disadvantages

- High initial investment cost.
- Handling of manure may be problem. Generally, flies become a greater nuisance.
- The incidence of blood spots in egg is more.
- Problem of cage layer fatigue. (It is a condition, in which laying birds in cages develop lameness. It may be due to Ca and P deficiency but the exact reason is not known)
- In case of broilers, incidence of breast blisters is more, especially when the broilers weight is more than 1.5 kg.

Elevated cage system

- The height of the shed is raised by 6-7 feet using concrete pillars.
- The distance between two pillars is 10 feet.
- Two feet wide concrete platforms are made over the pillars. When 3 'M' type cages are arranged 4 platforms are needed.
- In case of 2 'M' and 2 'L' type cages are arranged 3 platforms are needed.
- When constructing platforms projecting angles or iron rods to be provided to fix the cages.
- The inter-platform distance is 6-7 feet depending upon the type of the cages used.
- The total height of the house is 20-25 feet and the width is 30-33 feet.
- This type of house provides sufficient ventilation in tropical countries.

Cage rearing of broilers

Broilers can also be reared on cages. Broiler cages are similar to that of grower cages. To prevent the breast blisters, the bottom of the cage may be coated with some plastic materials. The floor space requirement in cages is 50% of the floor space needed in deep-litter. The relative advantages and disadvantages of cage rearing of broilers are,

Advantages

- Higher density of rearing possible
- Easy to catch the birds at market time and hence reduces bruising
- No expenditure on litter
- No incidences of coccidiosis
- Reduced cannibalism
- Cleaning and disinfection easier
- Better growth and feed efficiency

Disadvantages

- Higher incidences of breast-blisters which increases carcass condemnations
- Higher incidences of crooked keel
- Wing bones will be more brittle which will be a disadvantage for the processor also.
- Birds are not having access to the unidentified growth factors in deep-litter system.
- Cleaning faecal-trays is not labour friendly.
- High initial investment on cages.
- Birds will be uncomfortable especially during summer

Sex-separate Rearing of Broilers

The growth rate, floor space and the nutrient requirements of male and female broilers are not the same. Since the males grow faster than females, males need higher floor space and nutrients than female broilers. Due to these reasons, male and female broiler chicks are reared separately, in many countries, from day-old to disposal. Here, day-old broiler chicks are sexed by “feather sexing method” rather than by “vent-sexing”, as in the case of egg-type chicks. The sexed broiler chicks are brood and reared separately until marketing. Separate diets are provided for males and females. Male broilers require more protein, whereas the females require less energy and less protein.

Advantages

- More uniform body weight of flocks can be produced by separate rearing of sexes.
- Specialized market requirements can be met. The females can be reared, dressed and sold as whole chicken; whereas the male carcasses will be exclusively used for deboning and various cut-up parts.
- More accurate feeding to meet out the specific requirement of each sex will be possible. This will lead to better growth rate and feed efficiency.
- Due to flock uniformity, the automatic processing equipment can be adjusted more accurately for greater processing efficiency and minimum condemnations.
- Minimise the incidence of cannibalism and peck order, due to more flock uniformity.

Disadvantages

- Increased costs of sexing.
- Larger breeding flocks are necessary to meet the demand for male and female broiler chicks. In turn, hatcheries may require that their customers always purchase an equal number of male and female chicks.

SUMMARY

- Poultry farming carries several benefits over other agri-business. It is a very profitable enterprise and you can opt this business for egg or meat production which can give continuous income and also help in employment generation. It can be in the form of part-time or full-time employment by setting up of your own farm or serving in some farms.
- Relatively requiring less investment
- Generating continuous income
- Can be opted for part time or full employment
- Producing nutritious egg and meat to human beings

REFERENCES

- <http://www.agrifarming.in/poultry-farming-guide-beginners/>

- www.agritech.tnau.ac.in/animal_husbandry/ani_chik_poultry_rearing.html
<http://www.elearnvet.net/moodle/mod/resource/view.php?id=8315>
- http://www.elearnvet.net/moodle/file.php/32/Articulate/1.Indian_poultry_industry/player.html
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<http://www.indianmirror.com/indian-industries/poultry.html>
<https://www.youtube.com/watch?v=sbACrZMRvgw>
<https://www.youtube.com/watch?v=VuqYKdFhcB0>
<https://www.youtube.com/watch?v=SJBjFE-2RA8>
<https://www.youtube.com/watch?v=cpiIPkhfMwE>
<https://www.youtube.com/watch?v=Pcgou-l2X1w>
https://www.youtube.com/watch?v=DwG_MUeUFn4
<https://www.youtube.com/watch?v=0i0j6NSW56E>

To,
The principal,
Sri Venkateswara College
University of Delhi
Delhi-110021

Permitted
ml
17/3/23

17/03/2023

Subject: PERMISSION VISIT TO POULTRY FARM AS PER COURSE/PRACTICAL REQUIREMENT

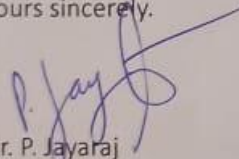
Respected Madam,

This is to bring to your kind notice as the part of the curriculum of paper entitled " Developmental Biology" it is required that the students of III year, B.Sc (H) Zoology prepare a project report on a visit to poultry farm.

In this regard I kindly request you to permit me (Dr. P.Jayaraj) and 30 students of III year, B.Sc (H) Zoology to visit **LOCHAB FARM, BIJWASAN, NEAR DWARKA EXPRESSWAY, NEW DELHI-110061**
(TIMING 9:00 AM TO 1: 00 PM)

Thanking you,

Yours sincerely,


Dr. P. Jayaraj
Assistant Professor
Department of Zoology
Sri Venkateswara College
University of Delhi

Forwarded
ml
17/3/23

Dr ANITA VERMA
TIC
zoology Dept.



Tirumala Tirupati Devasthanams

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NAAC Grade A+

CERTIFICATE

This is to certify that the **POULTRY FARM VISIT** was successfully conducted on **1 April 2023** from (Time) am/pm to 10 am / 1 pm by (Department od Zoology) in the offline mode and its event report has been submitted to IQAC for records.

Event In-Charge

IQAC Coordinator

Principal