



Centurion
UNIVERSITY

Skill course on Poultry Farming

ABC01(0-4-0)

Session: 12

Skills of formulating an ideal plan/ scheme of layer unit for rural youth for maximum profit.

Project Report On Poultry Farm Layer

50000 Units

Introduction-

Poultry egg and meat are important sources of high quality proteins, minerals and vitamins to balance the human diet. Specially developed breeds of egg type chicken are now available with an ability of quick growth and high feed conversion efficiency. Depending on the farm-size, layer (for eggs) farming can be main source of family income or can provide subsidiary income and gainful employment to farmers throughout the year. Poultry manure has high fertilizer value and can be used for increasing yield of all crops.

India is a densely populated country having predominantly agricultural economy. Almost every part of our country is suitable for poultry farming. During the past few years poultry industry have gained enormous potential particularly in and around major cities and towns. The Government of India through State Directorates of Animal Husbandry and Veterinary Services have been giving thrust on and incentives for the development of poultry industry. Development of poultry industries may further be accelerated, if improved varieties of layers/broilers are made available to the poultry farmers which could ensure fast growth, maximum feed to meat/egg conversion and low mortality among the poultry birds. Therefore, it is essential that hatcheries are set up in different areas having potential on decentralised basis, so that poultry farmers may get high yielding varieties of chick which in turn may give good returns to the farmers. This will not only reduce the pressure of unemployment in rural and sub-urban areas but also help in increasing per capita consumption of poultry meat and eggs and thus strengthen the economy of our country. In the modern nomenclature of poultry industry, the term hatchery covers the sector which is engaged in production and supply of one-day old chicks by artificial incubation. A hatchery can be a part of a breeding farm or it can be a franchiser or sub-franchiser for producing parent and day-old chicks of broilers or layers. The term hatchery can be extended to an organisation which does not maintain any breed stock (mating stocks) but only procures hatching eggs for producing (supplying) day old chicks. The organisations producing day old chicks only for replenishing their own requirements of birds are not covered under the term hatchery.

Scope

Poultry and Poultry products constitute an important component of human diet in most of the developing countries of the world. This consumption is also increasing at a rapid rate due to low fat content, easy availability & cost effectiveness.

Poultry is the least cost alternative only next to fish & produces more of animal protein from the same amount of feed compared to milch Cow, Sheep, Goat & Pig.

Two eggs provide 160 calories of energy and more than 20% of the daily requirement of proteins, Vit A, D & B12, Riboflavin, Folic acid, Pantothenic acid, Phosphorus, Iodine along with fat.

According to Nutritional Advisory committee of India at least half an egg should be made available to an average individual which workout to be 180 egg / annum.

Poultry farming require less area with high return than any other Animal Husbandry and Agriculture activities.

Land topography & soil fertility is never a criteria for Poultry like Agriculture. Poultry farming involves high grade sophisticated technology with higher profitability for which younger generation prefer this activity as their occupation than any other Agriculture & Allied activities.

In the primary sector, Agriculture provides about 100 to 120 days employment to the rural poor. Scanty land holding, land fragmentation and seasonal Agriculture are not able to provide full employment to the work-force which in turn creates unemployment in disguise. Poultry farming can be a viable option for rural poor to overcome the issue.

Input Required

Civil Structures

Poultry Sheds
Store room
Egg room
Office room
Quarters for staff
Others

Equipment/Plant and machinery

- i) Brooders
- ii) Feeders
- iii) Waterers
- iv) Cages
- v) Generator
- vi) Feed grinder and mixer
- vii) Debeaker
- viii) Vaccinator
- ix) Fridge/Deep Freezer
- x) Truck/van/Jeep

Housing

- i) Type of housing Deep Litter/Cage/Slat
- ii) Area required (sft./bird)

Birds

- i) Proposed strain
- ii) No. of birds to be purchased
- iii) Age of the birds
- iv) Source of birds
- v) Cost of birds (Rs. per bird)
- vi) Vaccination of purchased birds
- vii) Proposed programme of replacement
- f) Production parameters**
 - i) Number of eggs produced**

- ii) Feed efficiency (kg of feed/No. of eggs produced)
- iii) Mortality (%)

Feeding

Water

On-going Government Schemes

1. An ambitious programme have been taken up by Govt. to produce 100 lakh eggs/day within a 5 years of time and Govt. supports and assistance are available to establish large and medium layer farms.
2. State Govt. farms are in the process of strengthen to meet the requirement of D.O.C. of low input technology birds for backyard farming in the State – Contact Director, AH & VS, Orissa, Cuttack.
3. Self Help Groups formed in the State are given opportunity to start poultry farming through assistance of Govt. Departments – Contact DRDAs / ITDAs / W & CD / ST & SC Department.
4. Promotion of large and medium scale poultry farming through Agri entrepreneurs schemes – Contact APICOL / Krushi Sahayak Kendras.
5. Strengthening of OPOLFED to take up marketing – Contact OPOLFED.
6. Women Poultry Projects to promote backyard poultry farming in the State through STEP programme.
7. Skill up-gradation through training programme – Contact Director, AH & VS, Orissa, Cuttack.
8. Development of entrepreneurship is under process – Contact Director, AH & VS, Orissa, Cuttack.
9. Promote cluster farming – Contact DRDAs / ITDAs.
10. Promote split operation practice in layer farming.
11. Promoting integration in broiler and layer farming- contact Suguna / Eastern Hatcheries / Japfa
12. Venture capital fund- contact NABARD.

The issues already addressed by Govt. to support poultry development in the State

1. Orissa becomes 1st State to declare poultry as agriculture.
2. Poultry farming has been treated as priority sector of lending by the financing institutions.
3. A clear cut guideline formulated by State Pollution Control Board to ease poultry farming in the State.
4. Exemption of VAT on egg, meat & poultry feed and feed supplements.
5. Govt. land can be leased out for poultry farming as per O.G.L.S. Act.
6. Poultry insurance premium has been reduced.
7. 20% capital investment subsidy to a maximum of 20 lakhs is provided by APICOL for promotion of poultry farming.
8. Steps have been initiated to produce 100 Lakh eggs per day within coming 5 years.
9. Action Plan to increase the maize production in the State has been prepared.
10. State level Apex Committee has been constituted to look into various impediments of poultry sector.

The issues under active consideration at Govt. level for poultry development in the State-

1. Reduction of electricity tariff rate for poultry farming.
 2. Exemption of poultry industry from labour act.
 3. Exemption of VAT on maize and broken rice.
 4. Exemption of entry tax on egg and poultry meat.
 5. Planning to increase the storage capacity of maize crop in the State.
- Goal: Production of 100 lakh eggs per day by 2010.

Output Market Scope and strategy

India is the third largest producer of table eggs in numbers after China and US. It has recently overtaken Mexico, which was the third largest egg producer. Commercial layers in India are predominately white (>95 per cent). Few brown layers introduced could not maintain the market share due to higher feed intake and no price advantage for brown eggs.

Layer birds bred and adapted to Indian climate, feed and the market situation holds the largest share. International brands like Bovans, Lohmann and Hyline are also present in the market. The grandparents (GP) of the multinational brands are imported and multiplied.

Layer chick placements remained constant for three years between 2004 and 2006 due to bird flu but have been going up steadily since. The placement of layer chicks was about 140 million in 2002 which rose to 220 million by 2012. All commercial layer birds are in cages. Three-tier California cages in raised floor houses are common. Due to environment issues and the pressure of expansion, closed housed with multi-tier cages, mechanised egg collection, automatic feeding and manure-drying are being examined for their economic viability. The individual house capacity is usually 100,000 birds.

Around 70 per cent of the layer farming is in the southern states. The lower land prices and grain prices as well as less variation in seasonal climates are the reasons for the distribution. Separate brood/grow facilities situated in the closed vicinity is the order of the day. The growing areas are used on 'all in, all out' basis. Layer flocks are mostly in multi-age group farms.

The number of vaccinations for the layers have been going up with growing awareness of new diseases and new variants of the same disease. Many vaccines are imported but there are vaccine manufacturing companies in India. Bivalent Marek's vaccines are prevalent, yet "Rispen" is not permitted for use. India does not vaccinate against highly pathogenic avian influenza (AI) but rather practices a 'stamping-out' policy in case out outbreaks. There is government monitoring system for AI guided by OIE regulations.

Least-cost formulations are used to feed layer birds and there is a constant search for cheaper, unconventional feed materials. Feed prices fluctuate during the year, with the grain becoming cheaper during the harvest and more expensive again just before the beginning of the crop season. Many layer farmers concentrate on bulk purchase of grains in season to save costs. More than one grain is being used. Most layer feeds are low-energy rations, having around 2,400 kcal of energy.

The eggs are being sold in numbers. Grading, packing and branding is not widespread. Few attempts to sell them as graded and value-added eggs have not been very successful due to limited cost-effectiveness in pricing and volume of sales.

Layer farming is concentrated around few areas and lot of eggs move from place to place within the country. Various state governments are moving to enhance the local availability of eggs by giving incentives to farming. Exports of table eggs went up during 2002-2004 but is not increasing due to trade restrictions from the buying countries. India has half a dozen egg powder plants exporting egg powder. Many state governments are implementing midday meal schemes and serve eggs in the menu for the school children. Eggs are also served as a part of the hospital food. Eggs and bread is the popular "fast-food", which enhances the consumption of eggs enormously.

With good farming practices, production is up to 320 eggs per hen housed in a 365-day laying cycle. The average production of hen is calculated at 300 eggs per hen housed.

Per-capita consumption of eggs has gone up from 36 in 2002 to 48 in 2012.

Social and environmental appraisal

- 1) High-rise cage houses generally have poorer air quality and emit more ammonia than manure belt (MB) cage houses.
- 2) Manure removal frequency in MB houses greatly affects ammonia emissions.
- 3) More baseline data on air emissions from high-rise and MB houses are being collected in the United States to complement earlier measurements.
- 4) Noncage houses generally have poorer air quality (ammonia and dust levels) than cage houses.
- 5) Noncage houses tend to be colder during cold weather due to a lower stocking density than caged houses, leading to greater feed and fuel energy use.
- 6) Hen manure on open (free) range may be subject to runoff during rainfall, although quantitative data are lacking.

Which Agency to approach for financing the project

- NABARD

SWOT Analysis

Strength:

- Shorter gestation period.
- Favourable Government policy measures.
- Good network of AH institutions.

Opportunity:

- Increasing demand of egg.
- Availability of land at an affordable price.

Weakness:

- Price fluctuation.
- Highly capital intensive.
- Slow adoption of automation in production system.

Threat:

- Outbreak of disease like "Bird Flu".
- WTO: exposing the local industry to open competition.

Learning from the exercise

- The conceptual things learnt from this PROJECT REPORT OF POULTRY Farm-Layer 50,000 units of exercise are early profitable as compared to other type of business sectors.
- We calculated NPV, BC- Ratio, IRR , Payback Period and explicitly we have got an Idea that at which time we can expect profit and even pay back period in times of heavy competitions .

Calculations

On the basis of 10000 layers each year for 5 years we have calculated the NPV, PBP,CB RATIO,IRR.

Total cost=Rs2380000

NPV=Rs 5477500

Payback Period= 1Year 8 monthes 27 days

BCR= 3.301

IRR=39.77%

All the calculations are attached with exel file.