

# JOB ROLE – ANIMAL HEALTH WORKER

Sector – Agriculture

(Qualification Pack Code: Ref.Id.AGR/Q4804)

Class X



PSS Central Institute of Vocational Education  
Shyamla Hills, Bhopal – 462 013 , Madhya Pradesh, India

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# **UNIT 2: Development Programme Implementation and Marketing in Livestock Sector**

## **Session 1: Guiding Farmers on Business Options and Basic Economics of Livestock Production**

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# Session Objectives

The student will be able to understand the basic economics of livestock production including :

- Types of cost in livestock based enterprise
- Returns from livestock based enterprise
- Financial aspects and risk management
- Risk management
- Steps for starting livestock management

# Introduction

The principles of economics for market-oriented dairy farming are discussed in this session.

- Various costs of production are applicable to a dairy enterprise.
- The options for financing the enterprise are also discussed in this session.

# Basic Economics of Livestock-Based Activities

- The economics of any livestock enterprise is studied by computing and analyzing cost of production and the returns obtained from it.
- To get the profit and loss figures, that is, net returns, we subtract total cost from the gross return, that is, difference between the gross returns and the total costs. Therefore,

$$\text{Net returns} = \text{Gross returns} - \text{Total costs}$$

- Positive net returns indicate profit for the enterprise and negative net returns indicate loss.

# Types of costs in livestock-based enterprise

1. Fixed cost includes wages of permanent labour, interest on fixed capital assets, depreciation of the value of assets, etc.

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2. Depreciation cost is the decline in the value of an asset due to wear and tear. Depreciation covers the cost of equipment and livestock before their usefulness is exhausted. It adds an annual charge to the fixed cost, which is enough to recover the original cost within that period. The junk value of the asset is calculated before calculating the depreciation cost. Junk value is the value of the asset obtained at the end of its economic life. So,

$$\text{Depreciation rate} = \frac{\text{Original asset value} - \text{Junk value}}{\text{Estimated life of that asset}} \times 100$$

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3. Variable cost is the cost incurred on variable factors. These factors respond to changes in rate of output. They include wages of hired labour, expenditure on feed and fodder, fuel and electricity, transportation, veterinary care, etc.

# Returns From Livestock-Based Enterprise

Two types of returns are obtained from livestock activities that is, main product and by-product.

Main products are milk, meat, eggs, etc., and by-products include manure, etc.

The quantity of both these products is multiplied by their respective prices. The sum obtained forms the gross returns. These returns are required to compute the profitability of a livestock enterprise.

| Parameters    | S. No. | Particulars   |
|---------------|--------|---|
| Fixed capital | 1      | Cost of building  |
|               | 2      | Cost of animals   |
|               | 3      | Cost of equipment and appliances                              |
|               | 4      | Total fixed capital (S. no. 1+2+3)                            |
| Fixed costs   | 5      | Interest on fixed capital (S. no. 4 x rate of interest)       |
|               | 6      | Depreciation cost on building (S. no. 1 x depreciation rate)  |
|               | 7      | Depreciation cost on animals (S. no. 2 x depreciation rate)   |
|               | 8      | Depreciation cost on equipment (S. no. 3 x depreciation rate) |
|               | 9      | Total fixed costs (S. no. 5+6+7+8)                            |

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|                                     |    |  |
|-------------------------------------|----|--|
| Variable costs<br>(recurring costs) | 10 | Cost of feed and fodder<br>Cost of concentrate mixture<br>Cost of green fodder<br>Cost of dry fodder |
|                                     | 11 | Cost of treatment and vaccination  |
|                                     | 12 | Cost of labour   |
|                                     | 13 | Miscellaneous expenditure  |
|                                     | 14 | Total variable cost (S. no. 10+11+12+13)   |
| Gross costs                         | 15 | Sl. no. 9+14 (total fixed cost+ total variable cost)   |
| Returns                             | 16 | Sale of milk   |
|                                     | 17 | Sale of cow dung   |
|                                     | 18 | Sale of gunny bags   |
|                                     | 19 | Gross return (S. no. 16+17+18)   |
| Gross profit                        | 20 | S. no. 19—S. no. 15  |
| Net return                          |    | S. no. 20—bank loan repayment, if any  |

# Financial aspects and risk management

The following aspects of finance and risk management need to be considered for a livestock farm to flourish.

**Business plan and finance:** Livestock farming is a risky and challenging business. Livestock farmers have to deal with unpredictable situations, such as disease outbreaks, animal losses, and market fluctuations. Many livestock farming businesses fail because the owner does not plan properly.

# Options for financing

Explore different options when deciding how to finance a livestock farm.

- If family and friends want to invest, be sure that the terms are clearly defined and all parties understand the conditions of the investment or financing agreement.
- Many banks and lending institutions specialize in livestock loans. Their loan officials have the knowledge and experience to help you succeed.

# Financial Statements

Two primary financial statements are the balance sheet and the income statement.

- A balance sheet reflects the financial position of livestock business at a specific point in time.
- An income statement, also known as a profit and loss statement, shows all income and expenses over a period of time and indicates whether a business is profitable or not.

| <b>Assets (list here what you own)</b>   | <b>Liabilities (list here the money you owe)</b>  |
|--|---|
| <ol style="list-style-type: none"> <li>1. Cash</li> <li>2. Certificates of deposit</li> <li>3. Life insurance (cash value)</li> <li>4. Securities (stocks, bonds)</li> <li>5. Real estate (market value)</li> <li>6. Vehicles (market value)</li> <li>7. Individual retirement plan(s)</li> <li>8. Other assets (specify), etc.</li> </ol> | <ol style="list-style-type: none"> <li>1. Current bills</li> <li>2. Mortgages on real estate</li> <li>3. Loans</li> <li>4. Taxes</li> <li>5. Other liabilities (specify), etc.</li> </ol> |
| Total assets   | Total liabilities   |
| Net worth = Total assets – total liabilities   |   |

# Other Considerations to be Kept in Mind at The Time of Financing

1. To minimize investment, start on a small scale.
2. Plan for the entire year before you start spending your income.
3. Prepare a budget and stick to it.
4. Keep current and accurate records. Pay attention to details of income and expenditure.
5. Avoid unnecessary borrowing. Making wise decisions and investments will pay off in the long term.

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6. Set financial goals and review them often to be sure you are headed in the right direction.
7. Plan for reasonable living allowances for yourself and your family.
8. If you apply for a loan, be timely, plan ahead, and be prepared.
9. Establish a good credit history. Don't be late in repaying your loans.
10. Seek out a mentor in the livestock business and learn from him. This will result in a more positive experience than learning from your mistakes.

# Managing Risk

Livestock farming is an inherently risky and labour-intensive business.

Markets can fluctuate and current prices may not always support the cost of production. Dealing with risks proactively is what risk management is all about.

Anticipate what might happen, and act to reduce the chances of it happening.

Risk of livestock business can be minimised by the following tools.

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1. Insurance is a tool to protect personal and business assets. What type of liabilities do you face as a livestock farmer? Have you explored insurance options to cover accidents and injuries on the livestock farm?
2. Diversified production simply means not putting 'all your eggs in one basket'. A good strategy for diversification in livestock farms is to keep small animals like goat and sheep with cattle or buffaloes.
3. Marketing means to understand how and what drives the livestock business.

# Steps for starting livestock-based enterprise

Starting a sustainable and profitable livestock farming business involves proper planning, management, controlling, and organising all factors of production at the right time.

Therefore a step-wise process is followed to start the enterprise.

1. Selecting the right species of animals (cattle, buffalo, etc.) according to the area, weather, soil condition, and market facilities.
2. Selecting the right breed as per the demand of consumers.
3. Preparing a detailed project report with proper financial planning and cost and benefit analysis.
4. Properly enlisting the available and required resources including financial resources.
5. Applying for government subsidy and grants.
6. Participating in relevant trainings, demonstration, skill upgradation programmes of the relevant fields for improving knowledge and expertise.

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7. Using locally available, cost-effective and proper equipment with the latest technology.
8. Conducting market research that is, proper marketing planning for output products.
9. Proper maintenance of essential and required records.
10. Forecasting the uncertainty and risk related with an enterprise and remedial action for the same with proper management ability.

# Summary

In this session you have learnt about the basic economics of livestock production including :

- Types of cost in livestock based enterprise
- Returns from livestock based enterprise
- Financial aspects and risk management
- Risk management
- Steps for starting livestock management

**Project Coordinator : Dr. Kuldeep Singh**

**Assistance**

**Dr. Mukur Ganguly**



**Joint Director**

**PSS Central Institute of Vocational Education  
Shyamla Hills, Bhopal – 462013 , Madhya Pradesh, India**

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**E-mail: [jdpsscive@gmail.com](mailto:jdpsscive@gmail.com)**

**Tel. +91 755 2660691, 2704100, 2660391, 2660564**

**Fax +91 755 2660481**

**Website: [www.psscive.ac.in](http://www.psscive.ac.in)**