

CERTIFICATE PROGRAM IN MANAGEMENT OF PIG HUSBANDRY AND PIGGERY BUSINESS

Duration: 6 Months | **Total Credits:** 16

Eligibility: Minimum 10+2 or equivalent

Medium of the Course: English

Target Audience/Learners: Early Entrepreneurs, Aspiring pig farmers, Rural Entrepreneurs, SHG members, Agri-business owners, and any person with interest in the field of Animal Husbandry and Agri-Business Management.

Program Objectives:

- To provide scientific knowledge of pig husbandry suited to Indian climate and breeds.
- To ensure awareness of the practical aspects of pig rearing, feed management, health care, and breeding.
- To develop business management skills for sustainable piggery entrepreneurship.
- To equip learners with knowledge of business management, marketing management, finance, costing and accountancy.
- To ensure awareness of animal welfare laws, hygiene, and biosecurity measures.
- To Prepare the rural farmers/youth for accepting Pig husbandry and Piggery as profit making enterprise.

Course Structure & Credit Distribution

| Module | Title | Credits |
|---------------|--|----------------|
| Course 1 | Pig Husbandry and Marketing Management | 4 |
| Course 2 | Financial Management and Sustainable Development in Pig Husbandry | 4 |
| Course 3 | Human Resource Management and Entrepreneurship Development in Pig Husbandry | 4 |
| Course 4 | Project Work / Field Study | 4 |
| Total | | 16 |

Evaluation Pattern (Weightage Assigned):

- **Theory (Written Exam):** 70%
- **Project Report & Viva:** 30%

COURSE 1: PIG HUSBANDRY AND MARKETING MANAGEMENT**Credits:** 4**Course Objectives:**

1. To provide a scientific foundation in pig husbandry practices suited for Indian conditions.
2. To enable trainees to manage housing, feeding, breeding, and health aspects effectively.
3. To integrate livestock practices with farm management techniques for higher productivity.
4. To introduce learners to the fundamentals of marketing and supply chain management in the piggery sector.
5. To enable trainees to analyze consumer behaviour and demand patterns for pork products in India.

Course Contents**UNIT 1: Introduction to Pig Husbandry in India**

History and significance of pig farming in India, socio-economic role of piggery in livelihood generation, especially in North-East India, contribution to rural economy, scope for commercialization, present status and trends in pork consumption, challenges and opportunities in Indian piggery sector.

UNIT 2: Breeds of Pigs

Overview of indigenous breeds (Ghungroo, Doom, Nicobari, etc.), exotic breeds (Large White, Yorkshire, Landrace, Hampshire), crossbreeding techniques for productivity enhancement, comparative characteristics of local vs exotic breeds, suitability of breeds for smallholder and commercial pig farms.

UNIT 3: Reproduction and Breeding Management

Reproductive cycle of pigs, selection of breeding stock, natural and artificial breeding methods, farrowing management, care of sows during pregnancy, piglet care from birth to weaning, factors affecting reproductive efficiency, economic implications of breeding decisions.

UNIT 4: Housing and Farm Layout

Principles of pig housing in Indian climate, low-cost vs scientific housing systems, space requirements for different age groups, flooring, roofing, and ventilation, waste drainage systems, orientation and design of pigsties, preparation of farm layout for small and large-scale piggery units.

UNIT 5: Feeding and Nutrition Management

Nutrient requirements of pigs at different stages of growth, formulation of balanced rations, feeding practices using kitchen waste, crop residues, and commercial feed, role of protein, vitamins, and minerals, feeding schedules, cost-effective feeding strategies for Indian smallholders.

UNIT 6: Health and Disease Management

Common pig diseases in India (Swine Fever, Foot and Mouth Disease, Gastrointestinal parasites), preventive vaccination schedules, signs of illness and first-aid care, principles of biosecurity, hygiene and sanitation practices, importance of veterinary consultation, economic impact of diseases.

UNIT 7: Waste Management and By-product Utilization

Types of waste produced in pig farms, proper disposal and treatment methods, biogas production from pig manure, composting for organic farming, utilization of blood, bones, and skin in value-added industries, integrated waste management.

UNIT 8: Overview of Pork Consumption and Market Trends

Current status of pork consumption in India, regional variations with focus on North-East India, global demand and supply scenario, contribution of pork to the Indian meat industry, role of small piggery farmers in meeting domestic demand, opportunities for commercialization.

UNIT 9: Consumer Behaviour and Demand Analysis

Factors influencing consumer preferences for pork, cultural and religious considerations in India, role of income, lifestyle, and urbanization in shaping demand, seasonal demand patterns, methods of conducting demand surveys and market research for piggery entrepreneurs.

UNIT 10: Branding, Labelling, and Packaging Strategies

Importance of branding in differentiating pork products, packaging materials suitable for fresh and processed pork, FSSAI labelling requirements, use of vacuum packaging and cold chain for preservation, role of attractive and informative packaging in enhancing marketability.

UNIT 11: Distribution Channels and Retailing Practices

Traditional marketing channels in Indian piggery (butchers, local wet markets), emergence of supermarkets and e-commerce in meat sales, wholesaling, retailing, and direct-to-consumer models, scope and challenges in cold chain logistics, strategies for reaching urban and semi-urban consumers.

UNIT 12: Cooperative and Producer-Company Models

Role of cooperatives, Farmer Producer Organizations (FPOs), and SHGs in piggery marketing, benefits of collective bargaining, examples from dairy and poultry cooperatives applied to piggery, government support for producer companies, a case study from North-East India.

UNIT 13: Pricing Strategies and Competition Analysis

Principles of pricing for fresh and processed pork, role of production costs, demand, and competition in price determination, price differentiation strategies, analysis of competitors (domestic poultry, fish, and mutton industries), use of penetration and premium pricing in piggery business.

UNIT 14: Digital Marketing and E-commerce in Piggery Business

Use of social media platforms (Facebook, WhatsApp, Instagram) for promoting pork products,

e-commerce platforms and mobile applications for meat delivery, advantages of direct-to-consumer sales, building customer loyalty through online marketing campaigns, digital payment systems for rural entrepreneurs.

COURSE 2: FINANCIAL MANAGEMENT AND SUSTAINABLE DEVELOPMENT IN PIG HUSBANDRY

Credits: 4

Course Objectives:

1. To provide fundamental knowledge of financial accounting.
2. To enable learners to prepare and interpret financial statements for small and large piggery farms.
3. To familiarize learners with cost analysis and cost control for maximizing farm profitability.
4. To enable participants to understand financing options, subsidies, and insurance mechanisms available to pig farmers.
5. To create awareness of sustainable and eco-friendly practices in pig husbandry.

Course Contents

UNIT 1: Basics of Accounting in reference to Agri-business Enterprises

Introduction to accounting concepts and conventions, importance of accounting in livestock and piggery businesses, scope of financial management in small and commercial farms, distinction between cash and accrual basis of accounting, regulatory framework for accounting in Indian Accounting.

UNIT 2: Recording Transactions – Journal, Ledger, and Trial Balance

Recording of farm transactions through journals and ledgers, treatment of purchases, veterinary expenses, sale of pigs, preparation of trial balance, role of systematic record-keeping in enhancing credibility with banks and investors.

UNIT 3: Preparation of Financial Statements

Construction of Trading Account, Profit & Loss Account, and Balance Sheet, Inclusion of revenues from - pig sales, by-products, and subsidies, treatment of expenses, Expenses on - feed, labour, veterinary care, and depreciation, significance of these statements in measuring farm profitability and financial health.

UNIT 4: Cash Flow Management

Understanding cash inflows and outflows in piggery operations, managing daily cash needs for feed and health expenses, seasonal variations in cash flows, preparation of cash flow statements, techniques for improving liquidity, importance of cash budgeting for smallholder farmers.

UNIT 5: Cost Classification in Piggery Business

Classification of costs into fixed (housing, equipment), variable (feed, veterinary care), and

semi-variable categories, relevance of cost behaviour in farm decision-making, examples of cost distribution in small, medium, and large-scale pig farms, role of cost classification in pricing decisions.

UNIT 6: Costing Methods – Standard, Marginal, and Absorption Costing

Application of costing methods in piggery enterprises, standard costing for monitoring efficiency, marginal costing for decision-making in pricing and expansion, absorption costing for determining per-unit cost of pork production.

UNIT 7: Breakeven Analysis and Cost-Volume-Profit Relationship

Concept of breakeven point, graphical representation, calculation of breakeven for small piggery units, cost-volume-profit (CVP) analysis, application of CVP in determining number of pigs required to achieve desired profit, role of breakeven in investment decisions.

UNIT 8: Budgeting for Piggery Farms

Types of budgets – capital budget, operating budget, and cash budget, preparation of annual budget for small pig farms, role of budgeting in cost control and future planning, use of budgets in evaluating the feasibility of expansion projects, linkage with bank loan requirements.

UNIT 9: Financial Analysis Tools for Piggery Entrepreneurs

Introduction to financial ratios such as profitability, liquidity, solvency, and efficiency ratios, Net Present Value (NPV) and Internal Rate of Return (IRR) for evaluating piggery projects, application of these tools in analyzing creditworthiness, decision-making support for investors and farmers.

UNIT 10: National Livestock Policy and State-Level Initiatives

Overview of the National Livestock Policy and its relevance to pig husbandry, objectives of improving productivity, health, and marketability of livestock, state-specific piggery development programmes in Assam, Meghalaya, Nagaland, and other regions, role of animal husbandry departments in extension and training.

UNIT 11: NABARD Financing and the Animal Husbandry Infrastructure Development Fund (AHIDF)

Role of NABARD in providing refinance support for piggery units, eligibility criteria and loan application process, AHIDF as a flagship scheme for infrastructure development including - modern pigsties, slaughterhouses and cold storage facilities, capital subsidy schemes for pig farmers

UNIT 12: Role of NGOs, Cooperatives, and SHGs in Piggery Development

Contribution of self-help groups (SHGs), NGOs, and cooperative societies in promoting piggery as a livelihood option, capacity building and training provided by NGOs, role of FPOs (Farmer Producer Organizations) in creating collective bargaining power for pig farmers.

UNIT 13: Sustainable Piggery Practices and Waste Recycling

Principles of sustainability in livestock enterprises, importance of biosecurity, manure management, and environmental protection, utilization of pig waste for biogas generation, composting for organic fertilizers, examples of farms integrating eco-friendly practices, government emphasis on green livestock management under national policies.

UNIT 14: Integration of Piggery with Allied Sectors

Opportunities for integrating piggery with fisheries, poultry, and dairy farming, advantages of

mixed farming systems for risk diversification, piggery as part of integrated farming systems in rural India, Concept of community farming and cooperative management of piggery units, benefits of resource pooling, collective marketing, and risk sharing, successful case studies of tribal and rural communities adopting group-based piggery projects, scope for scaling up through FPOs and producer cooperatives.

COURSE 3: HUMAN RESOURCE MANAGEMENT AND ENTREPRENEURSHIP DEVELOPMENT IN PIG HUSBANDRY

Credits: 4

Course Objectives:

1. To equip learners with the entrepreneurial mindset needed to start and manage piggery enterprises.
2. To familiarize learners with the principles of managing human resources in piggery farms.
3. To enable learners plan and organize manpower for efficient farm operations.
4. To train in risk assessment, insurance, and sustainable business practices for long-term viability.
5. To encourage innovation, technology adoption, and ethical entrepreneurship in pig husbandry.

Course Contents

UNIT 1: Role of Human Resource Management in Piggery Enterprises

Importance of HRM in livestock-based businesses, nature of workforce in rural and semi-urban piggery units, challenges in managing family labour, hired labour, HR as a critical factor in productivity and sustainability, integration of HR practices with farm management.

UNIT 2: Manpower Planning, Recruitment, and Training

Steps in manpower planning for piggery farms, estimating labour requirements based on farm size, recruitment of skilled versus unskilled workers, training for feeding, breeding, and health management, role of government extension services and vocational training centres in skilling workers.

UNIT 3: Operations Scheduling and Work-Flow Organization

Principles of operations management in piggery, designing daily and weekly schedules for feeding, cleaning, breeding, and marketing activities, use of checklists and farm management tools, time-motion analysis for efficiency, delegation of responsibilities in medium and large piggery farms.

UNIT 4: Worker Motivation and Retention Strategies

Factors influencing motivation of farm workers, use of incentives, fair wages, and recognition, non-monetary benefits such as housing and food allowances, creating a positive work culture, strategies to reduce turnover, case examples from cooperative farms in India.

UNIT 5: Workplace Safety and Occupational Health

Risks associated with piggery operations – zoonotic diseases, injuries, sanitation hazards, importance of protective clothing and hygiene training, guidelines for accident prevention, role of occupational health checks, creating awareness on animal handling safety protocols.

UNIT 6: Legal Compliance and Labour Laws in Agriculture Sector

Overview of relevant Indian labour laws applicable to piggery farms – Minimum Wages Act, Contract Labour (Regulation and Abolition) Act, ESI and EPF applicability, welfare provisions for workers in unorganised sector, compliance requirements for medium and large-scale piggery units.

UNIT 7: Performance Appraisal and Leadership Development

Methods of evaluating worker performance in agricultural settings, use of simple appraisal tools, linking performance with rewards and promotions, role of supervisors and farm managers in providing feedback, leadership skills required to manage teams in piggery farms, building a culture of accountability and collaboration.

UNIT 8: Fundamentals of Entrepreneurship in Rural Economy

Concept of entrepreneurship, importance in rural development, role of piggery enterprises in employment generation, traits of successful rural entrepreneurs, entrepreneurship as a tool for poverty alleviation and livelihood security, differences between traditional farming and entrepreneurial piggery models.

UNIT 9: Business Models in Pig Husbandry

Overview of small, medium, and large-scale piggery models, backyard piggery versus commercial pig farms, contract farming and cooperative models, comparison of intensive, semi-intensive, and free-range systems, identifying suitable models based on resources, market, and risk appetite.

UNIT 10: Preparing Feasibility and Project Reports

Importance of feasibility analysis, steps in conducting market surveys, demand-supply gap analysis, preparing cost-benefit analysis, drafting a detailed project report (DPR) for piggery farms, sample formats for loan purposes, significance of project appraisal by banks and NABARD.

UNIT 11: Sources of Finance and Capital Formation

Funding avenues for piggery entrepreneurs – banks, microfinance institutions, cooperative banks, SHGs, venture capital, and government subsidies, process of loan application, interest subvention schemes, credit guarantee mechanisms, other government aided schemes, importance of financial literacy in managing borrowed capital.

UNIT 12: Insurance and Support Mechanisms for Piggery Units

Importance of livestock insurance for sustainability, types of piggery insurance schemes in India, coverage details and claims process, role of NABARD and state livestock boards in promoting insurance, integration of insurance with bank loans for risk reduction.

UNIT 13: Legal and Regulatory Framework for Piggery Enterprises

Licensing and registration requirements, Food Safety and Standards Authority of India (FSSAI) norms for pork processing and marketing, environmental clearance norms, local municipal

regulations, laws relating to animal welfare, and biosecurity guidelines issued by livestock departments.

UNIT 14: Sustainable and Ethical Entrepreneurship

Principles of sustainability in piggery enterprises, eco-friendly waste disposal methods, integration with biogas and organic manure production, fair trade practices, gender inclusion and women entrepreneurship in piggery, promoting community-based sustainable entrepreneurship models.

COURSE 4: PROJECT WORK / REPORT

Credits: 4

Course Objectives:

1. To provide hands-on learning through real-life piggery projects.
2. To develop analytical and reporting skills.
3. To encourage independent research and entrepreneurial thinking.
4. To integrate theoretical knowledge with practical field experience.

Project Work:

- Preparation of a business plan for a piggery unit.
- Market survey of pork demand in local region.
- Financial feasibility analysis of a piggery enterprise.
- Internship or field study in a piggery farm.
- Submission of a project report followed by Viva Voce.

PROJECT GUIDELINES FOR LEARNERS

As part of Course 4 (Project Work / Field Study), every learner must complete an **individual project** based on real-life observations, field study, or secondary research related to piggery management. The project is intended to help learners apply concepts learned from the course to practical scenarios in the piggery sector.

Learners may:

- Visit a **piggery farm**, processing unit, breeder unit, or marketing outlet, **OR**
- Conduct a **standalone survey** in their locality or community, **OR**
- Choose **any relevant topic** inspired by the course modules that genuinely interests them.

The project must be submitted as a **printed report** (HS-level equivalent) and will be followed by a **viva-voce examination**.

1. Purpose of the Project

The objectives of this project include:

- Applying theoretical knowledge to real-world piggery systems.
- Developing analytical, observational, and report-writing skills.
- Gaining first-hand exposure to pig husbandry practices, financial planning, marketing systems, and sustainability issues.
- Encouraging independent research and entrepreneurial thinking.

2. Suggested Project Areas / Topics

Learners are free to select any topic relevant to the course. Examples include, but are **not limited to**:

- i. **Preparation of a Business Plan for a Piggery Unit**
 - Farm layout
 - Breeds, inputs, capacity
 - Expected cost, revenue, and profit
 - Risk assessment and projected growth
- ii. **Market Survey of Pork Demand in the Local Region**
 - Consumer preferences
 - Frequency of purchase
 - Pricing trends
 - Role of cultural and regional factors
- iii. **Financial Feasibility Analysis of a Piggery Enterprise**
 - Capital cost and working capital
 - Operating expenses
 - Break-even point
 - Profitability and sustainability assessment
- iv. **Internship or Field Study in a Piggery Farm**
 - Daily operations

- Feeding, breeding, and health management
- Labour requirements
- Waste management practices
- Marketing and sales systems

v. Any Other Relevant Topic

Learners may choose **any topic related to the course**, some of them are listed below:

- Biosecurity and disease management
- Cost-effective feeding practices
- Role of cooperatives and SHGs in pig farming
- Digital marketing of pork products
- Sustainable piggery and waste-to-energy models
- Comparative study of indigenous vs exotic breeds
- Challenges faced by small-scale pig farmers
- Value addition and processing of pork products

3. Project Structure (Format of the Report)

The project should follow the structure below (HS-level depth):

1. Title Page

- Title of the Project
- Learner's Name & Enrollment Number
- Course Name
- Name of the Study Centre (if applicable)
- Year / Session

2. Acknowledgement

3. Introduction to the Topic

4. Objectives of the Study

5. Methodology

- Field visit
- Interview(s)
- Primary data, Survey (questionnaire, sample size)
- Secondary data used

6. Main Content / Findings

Depending on the topic: housing, feeding, market analysis, financials, pricing, etc.

7. Analysis / Interpretation

- Tables, charts, simple calculations (if relevant)

8. Conclusion & Suggestions

9. Bibliography / References

10. Appendices (if any)

- Questionnaire
- Photos (optional but encouraged)
- Field notes

4. Viva-Voce

After submission, learners must attend a **viva-voce examination**, which evaluates:

1. Understanding of the chosen topic
2. Clarity of concepts from the course
3. Ability to explain findings and justify conclusions
4. Communication skills

REFERENCES:

- Basic Accounting for Agribusiness and Rural Enterprises" Module by ICAI.
- Farm Accounting, Agromisa Foundation.
- Fundamentals of Accounting - ICMA
- Accountancy (Financial Accountancy) - NCERT Class 12.
- Better Livelihoods through Scientific Pig Husbandry. MANAGE e-book.
- Uplifting the Piggery Sector in India: Role of EAS. AESA Blog 173.
- Approaches for piggery development in the North-Eastern region of India.
- Brief overview of ILRI's activities in Northeast India on pig system development.
- Current status and development prospects of India's pig sector. Indian Journal of Animal Sciences.
- ICAR–National Research Centre on Pig profile.
- Practical manuals on "Setting up E-commerce for Farm Products" published by rural development Organizations.
- Training booklets on "Digital Payments and Financial Literacy for Rural Entrepreneurs" issued by banks and government programmes.
- Online blogs focused on "Pig Marketing Strategies and Branding for Small Farms".