

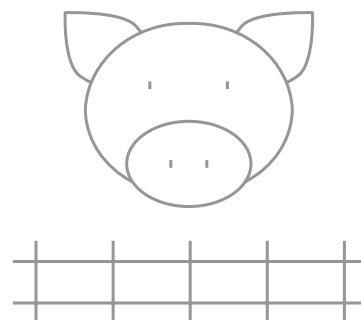
Community-based Sustainable Forest Management for Water Resources Conservation, Manipur (COSFOM)

Training Handout

(Scientific Pig Farming, Nutrition and Health Management)

Piggery Farming

Piggery farming refers to the practice of raising pigs for meat production (pork), breeding, or other purposes. It is a profitable agricultural enterprise that can provide a stable source of income, but it requires careful planning, management, and knowledge of animal welfare, nutrition, and farm management practices.



Key Aspects of Piggery Farming:

1. Types of Piggery farming

- ☐ Commercial
- ☐ Small-Scale

2. Breeding Pigs

- ☐ Sows (female pigs)
- ☐ Boars (male pigs)

3. Feeding and Nutrition

- ☐ Balanced Diet
- ☐ Water

4. Housing

- ☐ Conventional Housing
- ☐ Free-range Housing
- ☐ Deep Litter Housing
- ☐ Slatted Housing

5. Health and Disease Management

- ☐ Vaccination
- ☐ Parasite Control
- ☐ Biosecurity

6. Reproduction and Care of Piglets

- ☐ Farmer care
- ☐ Colostrum
- ☐ Weaning

7. Waste Management

- ☐ Manure management systems
- ☐ Proper disposal or use of waste
- ☐ Managing pig waste (manure)

6. Marketing and Sale

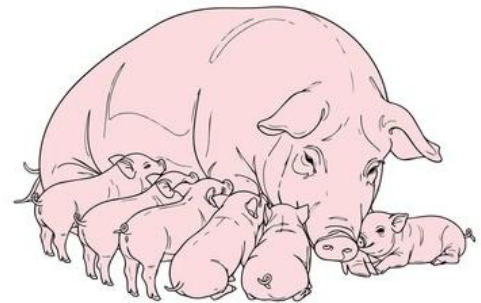
- ☐ Target Market
- ☐ Branding and Quality

I. Types of Piggery Farming

- **Commercial Piggery:** Involves large-scale production with an emphasis on efficiency and productivity. Commercial farms typically focus on breeding, growing, and fattening pigs for meat production.
- **Small-Scale Piggery:** Often family-run operations with fewer pigs. This type of farming may focus on local markets or niche products such as organic or free-range pork.

II. Breeding Pigs

- **Breeding Stock:** Breeding pigs are kept for the purpose of producing piglets. These include:
 - **Sows (female pigs):** Kept for breeding purposes. Usually 2-3 litters per year
 - **Boars (male pigs):** Used to breed sows. One boar can service several sows.
- **Breeding Practices:** Controlled breeding cycles are important for producing healthy piglets. The gestation period for pigs is around 114 days, and proper timing of breeding will ensure efficient farm productivity.



III. Feeding and Nutrition

- **Balanced Diet:** A well-balanced diet ensures the pigs grow healthy and produce high-quality meat. Pigs require a diet that includes proteins, carbohydrates, vitamins, and minerals.
 - **Starter Feed (for piglets):** Rich in protein to ensure healthy growth.
 - **Grower Feed (for young pigs):** Lower in protein but still rich in nutrients for steady growth.
 - **Finisher Feed (for market pigs):** Provides the necessary nutrition for pigs to reach optimal weight for slaughter.
- **Water:** Clean, fresh water must always be available, as pigs require substantial amounts of water for digestion and overall health.



Metabolic energy (kcal/kg):
3,300-3,400



Raw Fiber: 4%



Raw Protein: 17%-21%



Essential amino acids:

- Lysine: 1.15%
- Methionine: 0.29%
- Methionine + Cystine: 0.58%
- Threonine: 0.75%
- Tryptophan: 0.21%



Minerals:

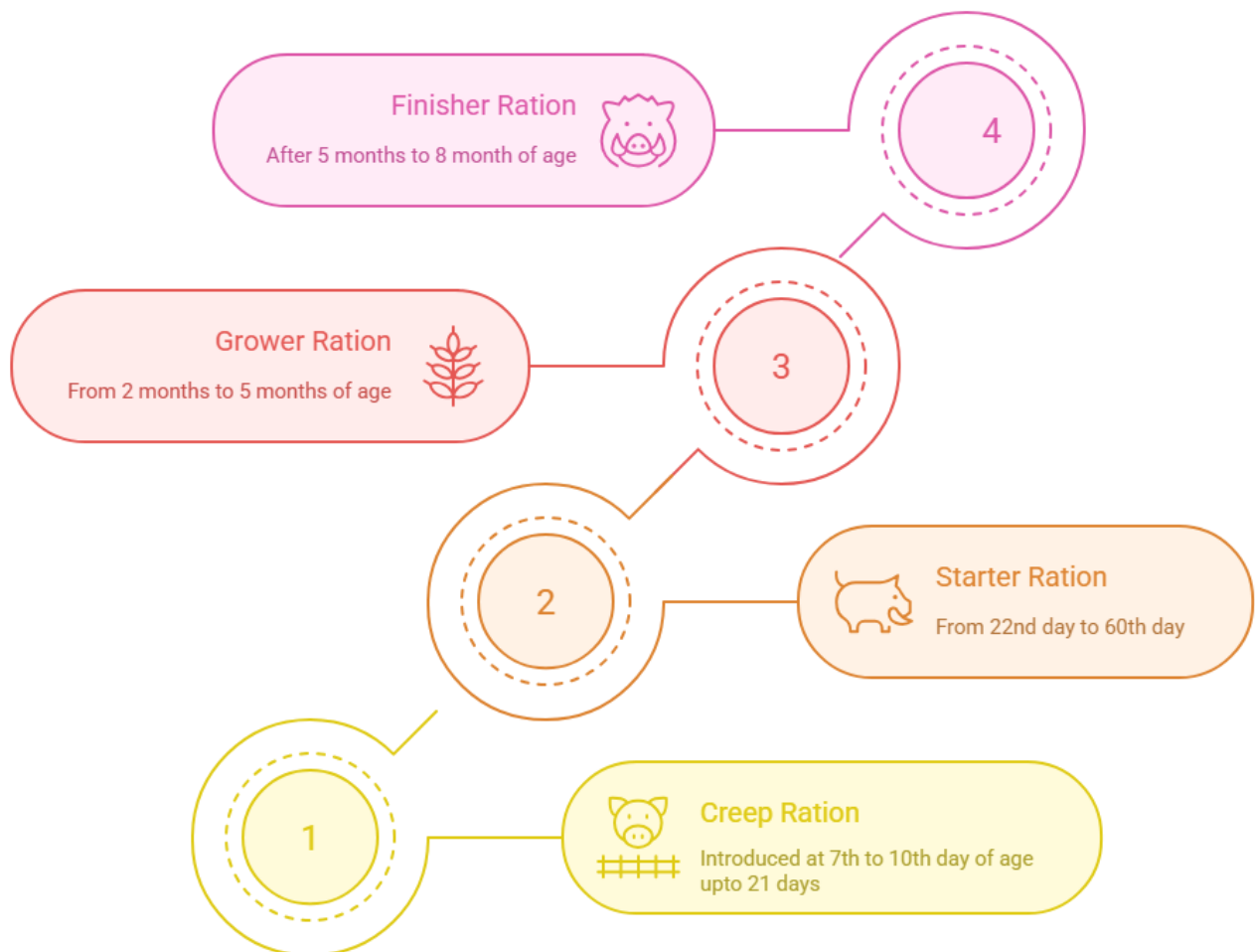
- Calcium: 0.80%-0.90%
- Total phosphorus: 0.70%
- Sodium: 0.15%-0.35%

(nutritional requirement image adapted from **brf ingredients** <https://www.brfindredients.com/en/>)

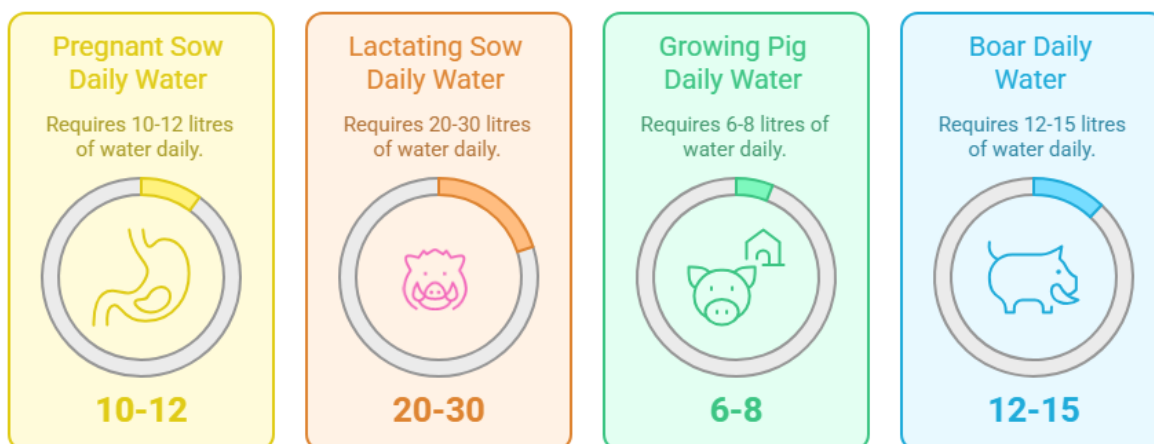
Feeding Rates by Age and Expected Body Weight Gain

Age (weeks)	 8-10	 10-12	 12-16	 16-18	 18-24	 24-28
Body Weight (kg)	12-15	15-20	20-40	40-50	50-84	84-105
Feed kg/day	0.66	1.0	2.0	2.5	3.0	3.5
Feed type	weaner/starter	weaner/grower	weaner/grower	Finisher	Finisher	Finisher

Time of introduction of different types of rations



Daily water requirement



Water requirements vary significantly based on the pig's stage of life and reproductive status.

(Source: ICAR-Agricultural Technology Application Research Institute, Punjab)

IV. Housing

- Proper housing is critical for pig welfare. Pigs should be housed in clean, dry, and well-ventilated environments to prevent disease and stress.

- Types of Housing**





Separate House for Breeding Boar/Pregnant Sow



Separate House for Gilt and Dry Sows



Provision of Forrowing Pan



Heating and Cooling Arrangement



Provision of Piglet Nest/Box



Provision of Creep Feed/Starter Feed



Suitable Size of Drinkers



Suitable Size of Feed Trough

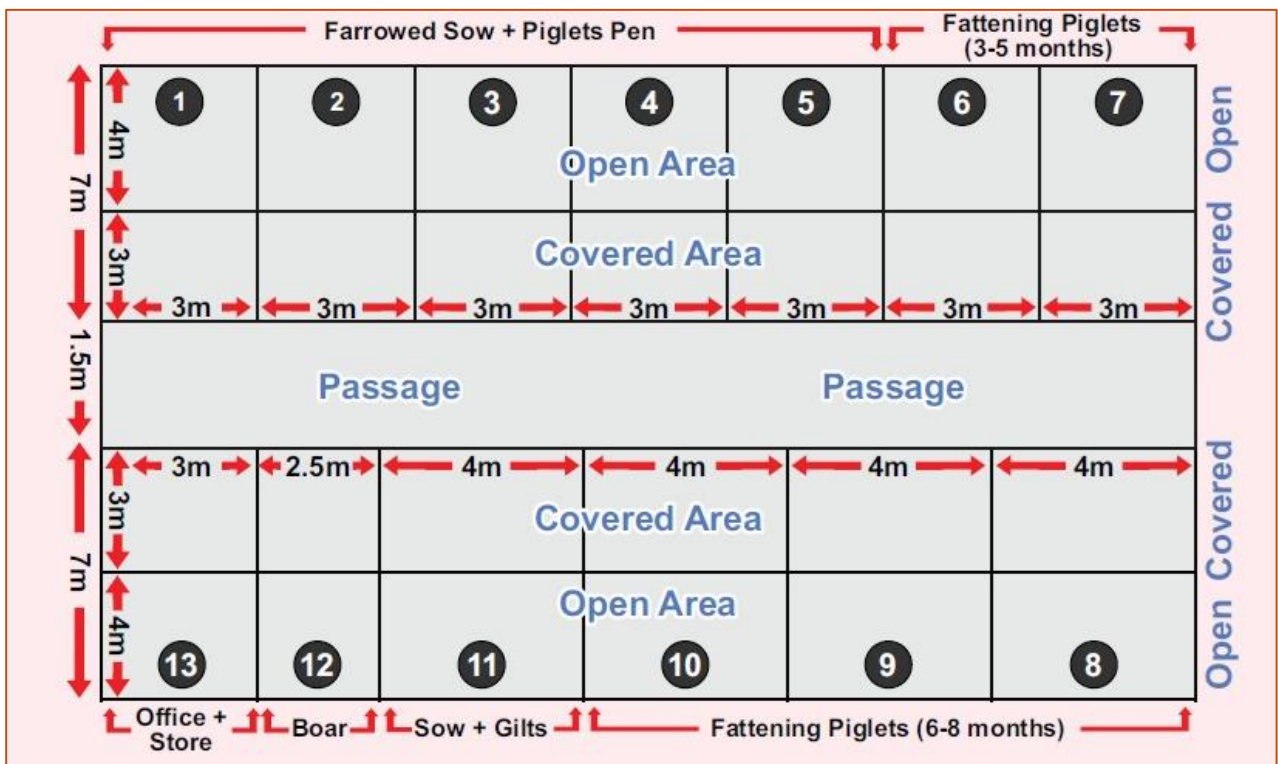
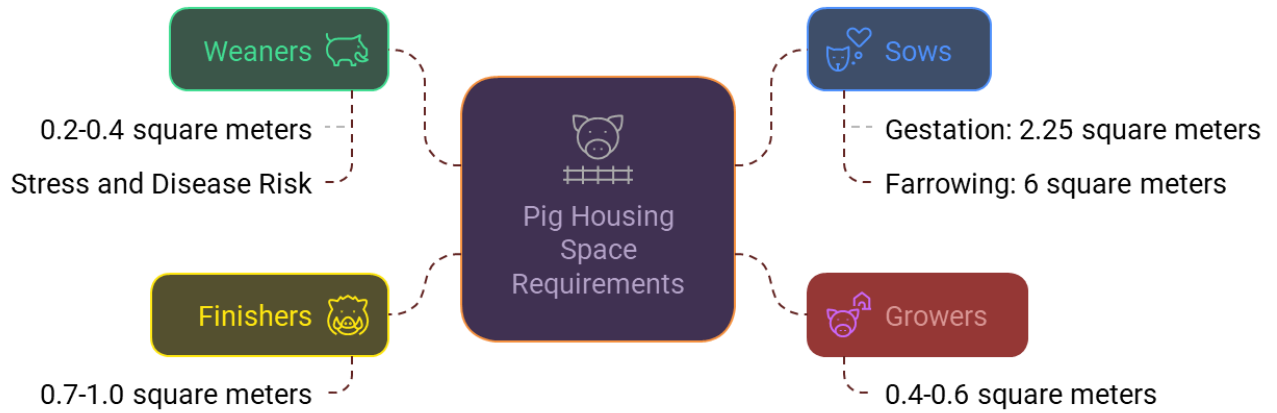


Suitable Floor Space



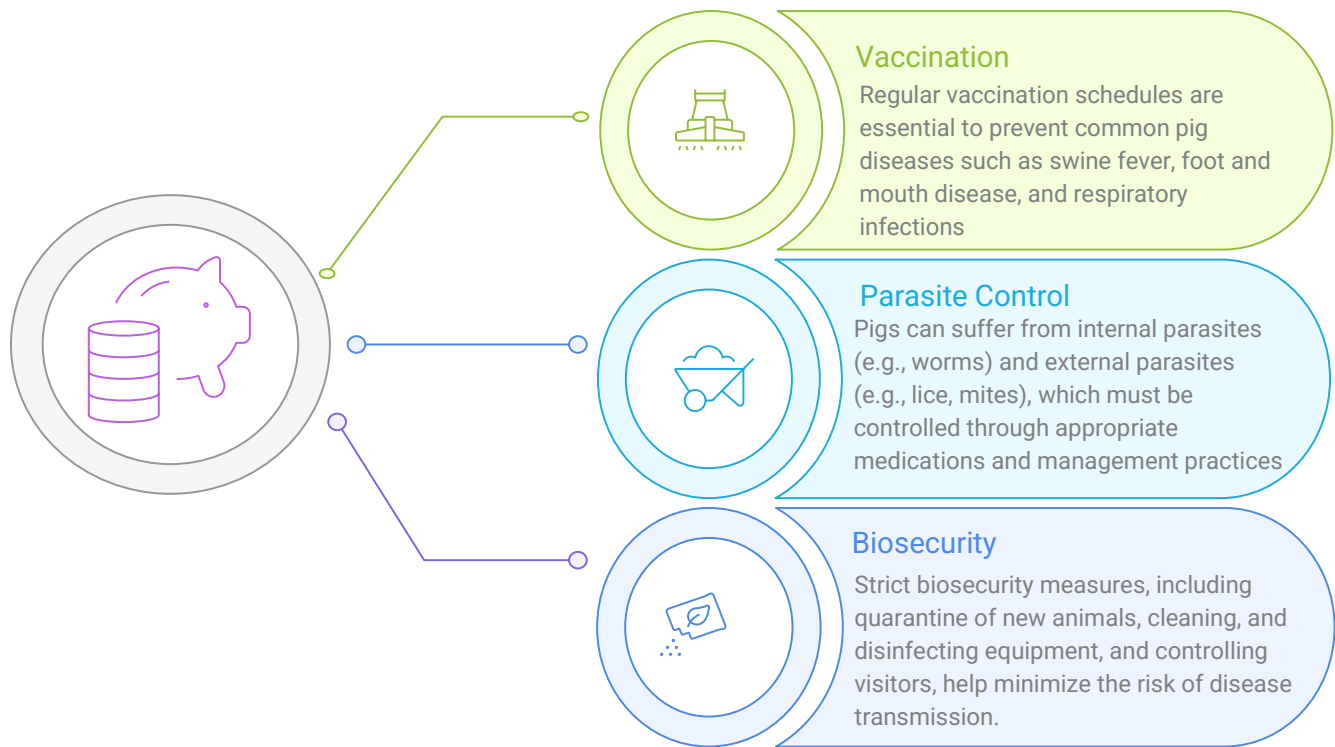
5 Sufficient Space for Exercise

Pig Housing Space Requirements

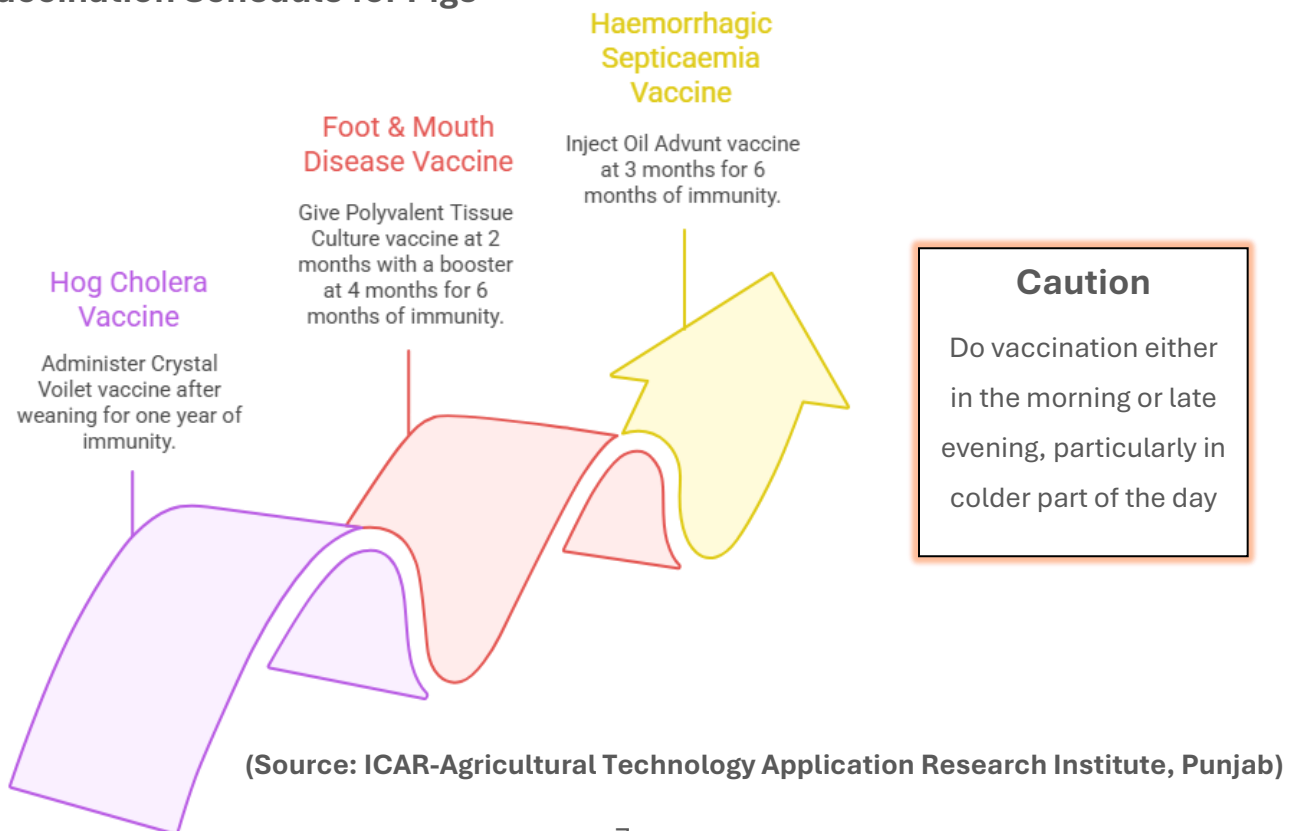


Outline of Pig Sty (Source: GADVASU, Ludhiana)

V. Health and Disease Management

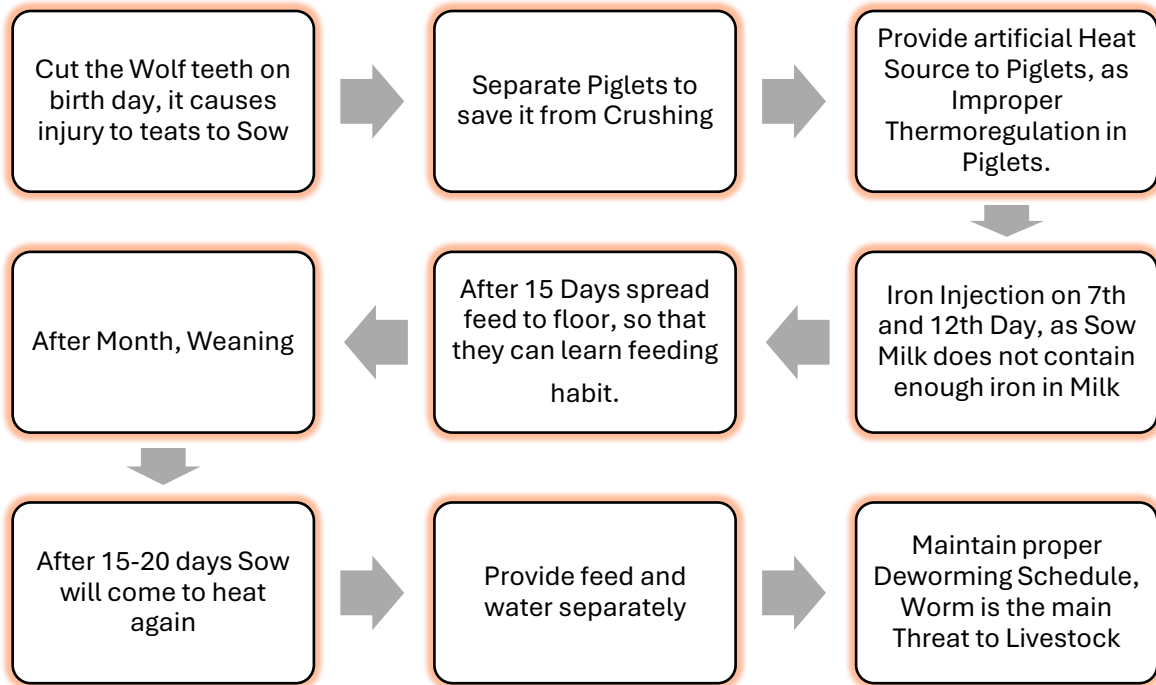


Vaccination Schedule for Pigs



VI. Reproduction and Care of Piglets

- **Farmer Care:** Sows should be carefully monitored during farrowing (birth), and piglets should be kept warm, dry, and fed.
- **Colostrum:** Ensure piglets receive adequate colostrum (first milk), which is rich in antibodies to protect against diseases.
- **Weaning:** Piglets are typically weaned at 3-4 weeks of age and should be introduced to solid feed to ensure proper growth and health.



VII. Waste Management

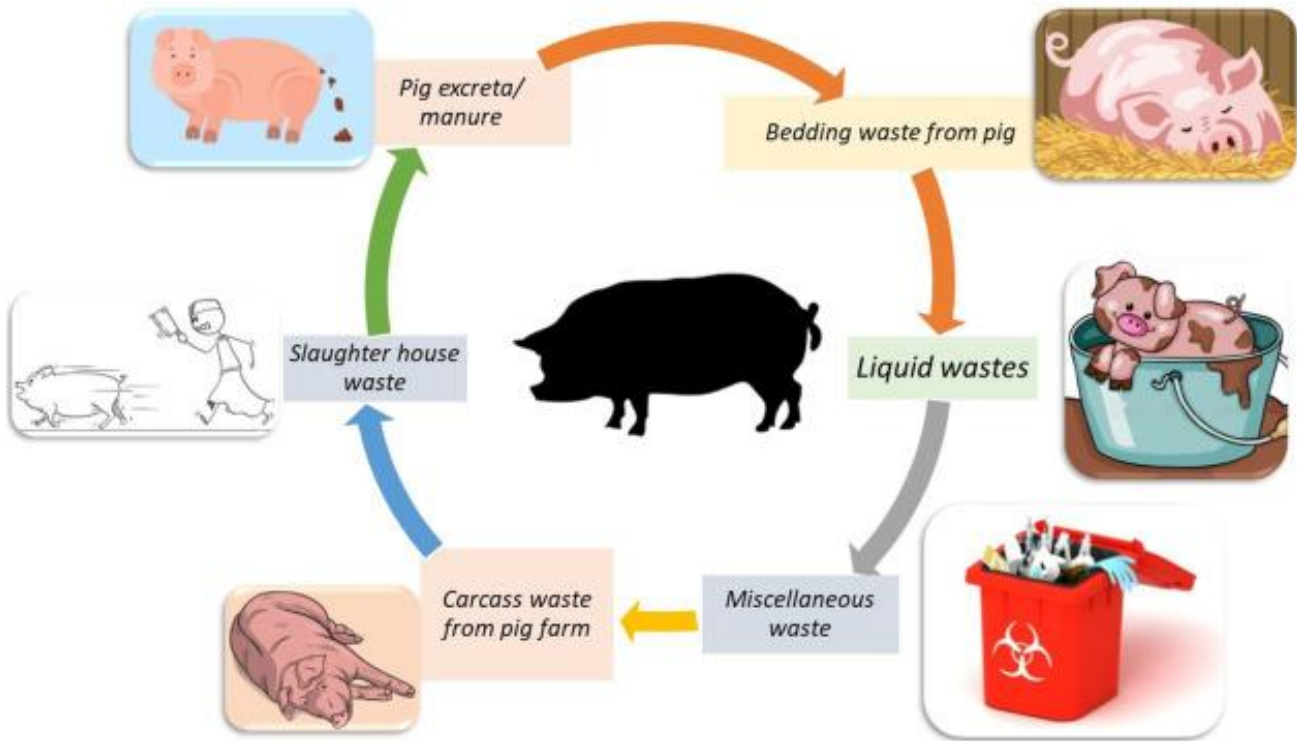
Manure management systems may include slurry pits, composting, or other methods to handle waste effectively

Proper disposal or use of waste, such as converting it into organic fertilizer, helps reduce pollution and creates an additional income stream

Managing pig waste (manure) is crucial for maintaining hygiene and minimizing environmental impact



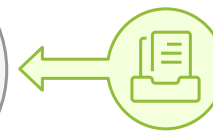
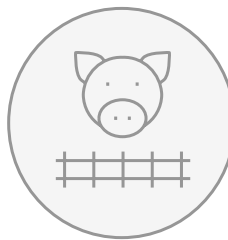
Types of Wastes



VIII. Marketing and Sales

Target Market

Understand whether you are selling live pigs, pork, or processed products. The market can include local markets, supermarkets, or meat processors.



Branding and Quality

Producing high-quality meat, such as free-range or organic pork, can increase profitability by catering to niche markets

IX. Advantages of Piggery Farming

1. High Profit Potential

With proper management, pig farming can be highly profitable due to the rapid growth rate of pigs and the high demand for pork

2. Efficient Feed Conversion

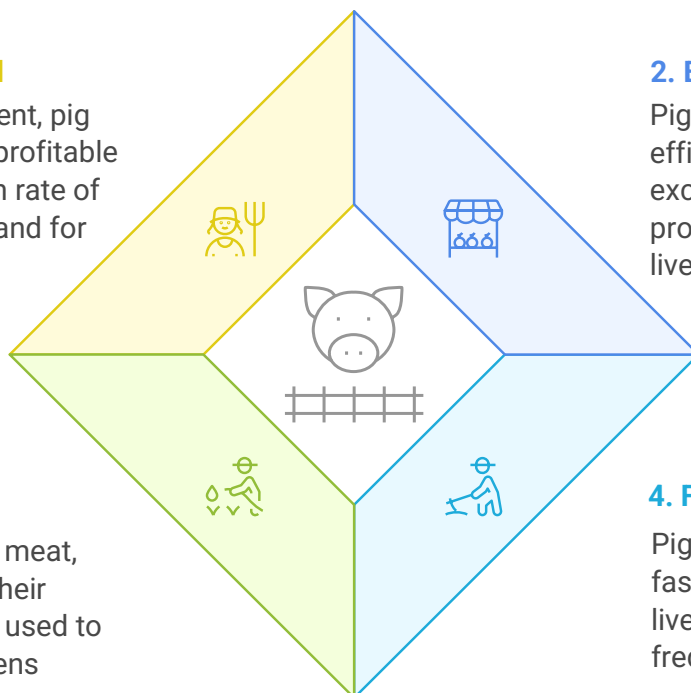
Pigs convert feed into meat efficiently, making them an excellent option for meat production compared to other livestock

3. Multipurpose Use

Pigs can be raised for meat, breeding, or even for their manure, which can be used to fertilize crops or gardens

4. Faster Turnover

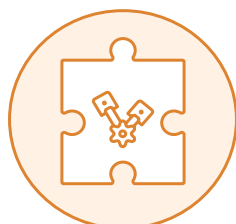
Pigs reach market weight faster than many other livestock, allowing for more frequent income generation



X. Challenges of Piggery Farming

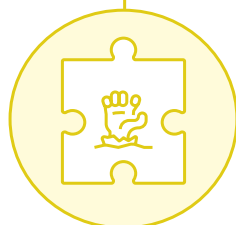
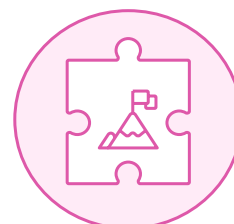
Disease

Pigs are susceptible to various diseases, which can be costly to manage and may affect



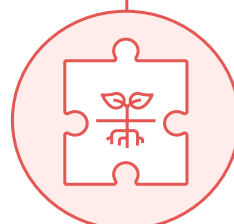
Environmental

Proper waste management is critical to prevent pollution and negative



Initial Investment

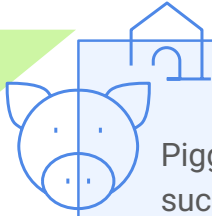
Setting up a piggery farm requires capital for housing, equipment, feed, and initial



Labor-

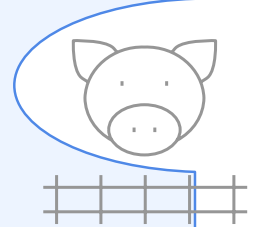
Regular monitoring of pigs' health, feeding, and cleaning requires a significant time

(Source: Food and Agriculture Organization: <https://www.fao.org/home/en>)



Conclusion

Piggery farming can be a rewarding and profitable venture, but success depends on effective management, proper nutrition, housing, disease control, and waste management. With careful planning, pig farming can contribute to sustainable agricultural practices and offer a reliable source of income. It's essential to continuously update farming practices to meet changing market demands and ensure the health and well-being of the pigs.



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