

Community Engagement Proposal: “Grass into Gains: Promoting Silage Production for Livelihood and Livestock Development”

A Project of the Graduate Students of the Department of Animal Science

Rationale

Livestock production in the Philippines faces recurring challenges in feed availability and rising costs, particularly during the dry season and periods of limited pasture growth. Silage production provides a practical, cost-efficient, and sustainable solution to ensure a year-round supply of high-quality forage. Training farmers, livestock raisers, extension workers, and agricultural students on silage production techniques will strengthen local livestock industries by improving feed security, reducing waste of surplus forage, and enhancing productivity.

Objectives

- Introduce participants to the principles, importance, and benefits of silage in livestock feeding systems.
- Demonstrate different silage production techniques (e.g., chopped Napier grass, corn, legumes, and crop residues).
- Provide hands-on training on silage preparation, packing, sealing, and storage.
- Familiarize participants with quality assessment, nutritive value, and utilization of silage in ruminant diets.
- Promote sustainable feed resource management and income-generating opportunities for farmer-cooperatives and MSMEs.

Target Participants

- Farmers and livestock raisers
- Members of cooperatives/associations
- Agricultural extension workers and technicians
- Students and faculty in agriculture/animal science

Training Methodologies

- Lectures & Presentations: Principles of silage, nutritional importance, and economics.
- Demonstrations: Step-by-step preparation of silage using local feed resources.
- Hands-On Practice: Chopping, mixing, packing, and sealing silage in drums, plastic bags, and pits.
- Group Discussions: Sharing of experiences and best practices in feed preservation.
- Evaluation & Feedback: Assessing knowledge gained and areas of improvement.

Proposed Topics

1. Introduction to Silage Production – Importance, advantages vs. hay, and limitations.
2. Raw Materials for Silage – Suitable forages, grasses, legumes, crop residues.
3. Principles of Ensiling – Fermentation process, role of lactic acid bacteria, moisture requirements.
4. Silage Preparation Techniques – Field harvesting, chopping, wilting, additives (molasses, LAB inoculants).
5. Silage Storage Structures – Plastic bags, drums, pits, bunkers.
6. Silage Quality Evaluation – Physical appearance, smell, pH, proximate analysis.
7. Feeding Management – Incorporation of silage in ruminant diets.
8. Cost-Benefit Analysis – Economics of silage making vs. commercial feeds.

Duration and Venue

Duration: 1–2 days (flexible depending on depth of training) per batch

Venue: University demonstration farm / cooperative training center / local barangay hall with nearby forage area

Expected Outputs

- Participants equipped with knowledge and skills in silage production.
- At least one silage product prepared during training (demo silage in drums or bags).
- Strengthened community capacity in feed resource conservation.
- Potential enterprises on silage production for cooperatives/MSMEs.

Budgetary Requirements (Sample Estimate)

Item	Quantity	Estimated Cost (PHP)
Training kits (modules, pen, notebook)	30 pax	6,000
Honorarium for resource speakers	2 speakers	10,000
Food and snacks	30 pax x 2 days	18,000
Materials (plastic drums, bags, molasses, forage crops, LAB inoculant)	Lump sum	12,000
Venue, logistics & documentation	Lump sum	5,000
Total Estimated Cost		51,000

Implementing Agency & Partners

Lead Organizer: University / Extension Office / Regional Agribusiness Hub

Partners: DA, DOST-PCAARRD, LGUs, farmer cooperatives, private agribusiness stakeholders

Monitoring & Evaluation

- Pre- and post-training evaluation questionnaires
- Documentation of hands-on activities
- Feedback from participants and trainers
- Follow-up survey on application of silage techniques in farms within 3–6 months