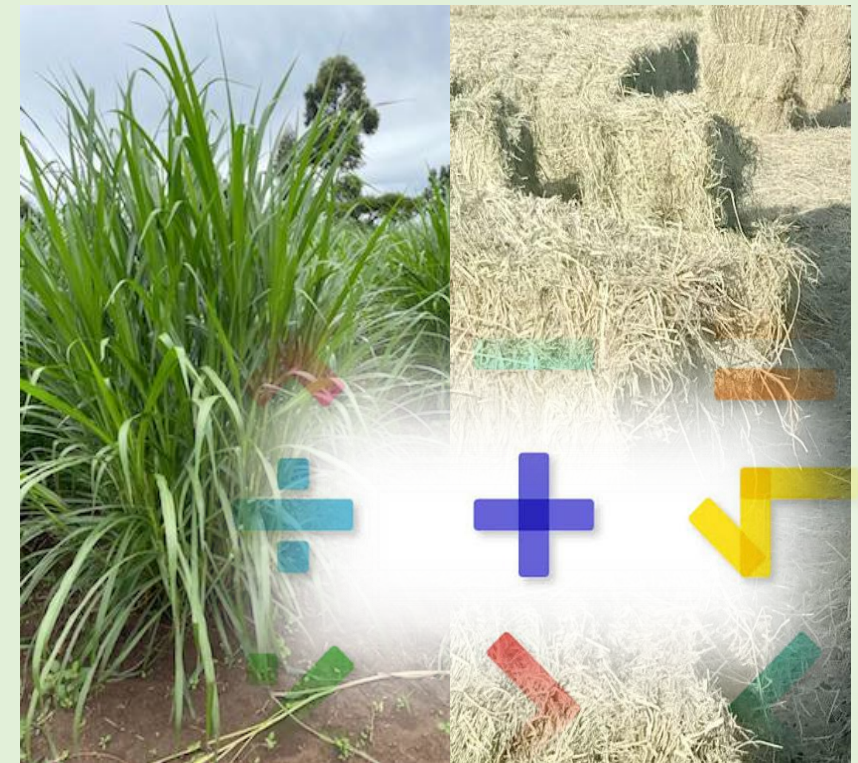


ECONOMICS OF FORAGE AND PASTURE PRODUCTION (Level 1)

Topic	Training & information Content
1.1	Planning of fodder/feed requirements for the dry season
1.2.1	Integrated soil fertility management I
1.2.2	Integrated soil fertility management II
1.3	Use of natural resources, compost making, farmyard manure, manure storage and use
1.4	Growing maize and sorghum for fodder and estimating time of harvest and yield
1.5	Brachiaria, Panicum, & Napier (cut and carry) grass management
1.6	Growing fodder trees and use of feed
1.7	Estimating of dry matter content, feeding value and yield of various fodder crops
1.8	Guidelines for Tropical pasture management and grazing management
1.9	Scaled mechanization of forage production and harvesting (harvesting practices)
1.10	Operating farm equipment and self-propelled tractors
1.11	Mechanization of feeding management
1.12	Economics of forage and pasture production



1. You will learn about (learning objectives):

- ❑ The cost behind various forage productions and how to calculate production cost of various types of forages, including;
 - Pasture grass
 - Cut & carry forage
 - Forage crop



2. Introduction

- Feed costs are a major expenses in farms.
- Farms therefore have to find ways to maximize economic feed production.



3. Importance of forage and pasture economics

Considering forage & pasture economic helps in:

- i. Identifying production cost of forage and pasture production.
- ii. Determining return on investment from forage and pasture production.
- iii. Understanding and selecting a profitable forage and pasture system that fits your farm.
- iv. Ensuring access of highly nutritive forage to animals for best performance.



4. Benefits of forage crops

Forage crops:

- Improve soil fertility e.g. legumes and when manure and urine is distributed in pastures.
- Reduce weed population.
- Forage legumes complement grasses (pastures).
- Offer repeated harvests each year.
- Increase the yield of subsequent crops.
- Reduce cost of production in subsequent crops in rotational systems.



5. Types of forage costs

- Cost of production can be split into four (4):
 1. Materials and service (inputs)
 2. Labour
 3. Machinery operations
 4. Machinery ownership/contracting



6. Material and service (inputs) costs

- This refers to all inputs or services needed at every stage of production. Comprise of;
 - a. Planting materials (seeds / suckers)
 - b. Herbicides
 - c. Fertilizer & lime



7. Labour costs

- Labour is mostly needed during;
 - Land establishment stages (manual ploughing of land).
 - Forage production stages (manual planting, fertilizer application & weeding).
 - Forage harvesting stages (harvesting, loading & offloading processes).



8. Machinery operations and ownership costs

Machinery operations

- These are the costs of fuel, repairs and maintenance.

Machinery ownership

- These are costs that take into account depreciation, taxes, insurance and interests charged on investment.



9. Forage and pasture production processes

i. Land preparation

Marks the start of production with ploughing taking place between 1-3 times, depending on levelling intended for particular crop.

ii. Planting

Done manually especially in small scale production mechanically.



9.1 Forage and pasture production processes Cont'd...

iii. Fertilizer application

Whether by use of organic (FYM) or inorganic fertilizers, this is an essential aspect in forage production.



Tip: Proper fertilization of perennial crops after cut goes a long way in reducing cost & increasing quality yield production.

iv. Weed management

Done manually through use of chemicals or appropriate mode of action for weed prevention.



9.2 Forage and pasture production processes Cont'd...

v. Water management

Is an additional measure undertaken when there is no enough rainfall; or for crops that are dependant on irrigation.

vi. Harvesting

Poor timing and handling can cause a lot of losses of forage and misuse of manpower (cost) by farmers. A lot of labour is also used in these processes.



Tip: Production processes translate to the costs that farmers have to incur for the various forages.



10. Factors affecting forage production

- The common factors that influence the cost of producing forage crops are:
 - i. Management of forage/pastures – paddocking, water infrastructure, grazing system (rotational), frequency of cutting and harvesting.
 - ii. Mechanization of harvesting.
 - iii. Storage of the forage.



11. Calculating the cost of production of forages

- Production cost for planting perennial pastures compared to annual forage crops are divided into various stages:
 - i. First / initial establishment
 - ii. Second cut
 - iii. Third to Fourth cuts etc.

