

Sustainable Agricultural Livelihood Restoration, Rehabilitation and Resilience in Kenya

Guidelines on Sustainable Ruminant Feeds and Nutrition Security for Kenya

CHAPTER 4 STRATEGIC INTERVENTIONS TO ADDRESS RUMINANT FEED AND NUTRITION INSECURITY

4.1 Pillar 1. Feed availability

Feed availability is influenced by production, feed reserves, markets, and transport system, among other factors. The following are the interventions to address issues in feed shortage or unavailability:

4.1.2 Intervention 2. Strategy to enhance strategic feed reserves

4.1.2.1 Enhance feed storage capacity

- i. Encourage the construction of on-farm and community-based feed reserve facilities for small-scale farmers through government subsidies and partnerships with private sector players.
- ii. Implement a public-private partnership to establish strategically located feed storage centres across the Counties.
- iii. Train farmers on the use of appropriate storage technologies to minimise losses.
- iv. Establish a national feed reserve fund to financially support farmers during feed scarcity.
- v. Reduce costs of feed conservation through large-scale operations, including bulk purchase of conserved materials (cooperatives, farmer organisations, communal conservancies)
- vi. Development of strategic feed conservation sites/ feed reserves/ grazing reserves/ feed banks/ feed centres in villages, wards and Counties
- vii. Conserve feeds under favourable weather conditions (temperatures, moisture) to avoid spoilage
- viii. Enhance infrastructure to the feed centres/conservation sites (roads, port, railway)
- ix. Construct feed storage structures/stores within the vicinity of feed centres and producers
- x. Harvesting and storage of idle natural pastures in the rangelands.

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4.1.2.2 Enhance feed storage infrastructure

- i. Construct feed storage structures/stores within the vicinity of feed centres and producers
- ii. Utilise idle capacity and increase the efficiency of the existing structures through review and redesigning of the existing feed storage structures
- iii. Promote modern feed storage structures
- iv. Train artisans on skills and technology on the correct materials and designs for constructing hay barns and silage banks
- v. Equip stakeholders with relevant skills for filling of hay barns and silos
- vi. Sensitise stakeholders on hazards eg. spontaneous fires, rodents, rain/wind storms

4.1.2.3 Establish adequate storage capacity at feed centres and strategic feed reserves

- i. Enhance access to cheap and affordable credit
- ii. Establish a fund/grant for establishment and construction of feed storage facilities at the feed centres
- iii. Encourage PPPs & P to establish storage facilities for farmers at an affordable fee

4.1.2.4 Mitigation measures on unfavourable weather conditions

- i. Timely planting and harvesting to synchronise the activities with the right weather conditions
- ii. Facilitate farmers in acquiring silos, silage tubes/ bags and in construction of silos for silage storage
- iii. Ensure proper orientation of the storage structure (The long side of the structure should not face the wind/rain direction)
- iv. Use weather proof designs in constructing feed storage structures
- v. Solar drying of hay during rainy weather conditions under greenhouse structures



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- vi. Enhanced early warning system especially on forecasted unfavourable weather conditions giving appropriate advisories

4.1.2.5 Enhance post-harvest feed handling and storage (pests; termites, rodents attack)

- i. Construct feed stores with vermin control structures
- ii. Control rodents (mice, rats, moles) from inhabiting the feed stores
- iii. Use insecticide to control termites from invading the feed stores.

4.1.2.6 Improved methods of feed conservation, processing and densification

- i. Hay and silage making
- ii. Feed pelleting
- iii. Feed briquettes
- iv. Feed meals
- v. Feed blocks

4.1.2.7 Prevent malicious and deliberate feed damage (arson, puncturing of silage tubes, livestock trespass)

- i. Beef up security- fencing, locking, use CCTV cameras, mobile apps, security guards
- ii. Control the vice through education and legal system

4.1.2.8 Improved planning and management of feed reserves (County and community level)

- i. Develop and implement a comprehensive County feed reserve management plan that includes regular assessment and monitoring of feed reserves, forecasting of demand, and provision for regular replenishment.
- ii. Incorporate ICT feed management app (LifeSim, digital cow, KALRO selector etc) that farmers can use to plan their feed reserves, forecast feed demand, and access information on feed prices.



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- iii. Promote dry and wet season grazing areas
- iv. Establishment of feed camp options for livestock maintenance during the drought seasons;
In-Residential and out feed camps