

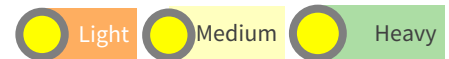
Palatability - referring to plant features or conditions that encourage animals to feed on the plant when given a choice - is important as the ability or willingness of animals to feed on specific forage determines the efficiency of production of animal products. When feed is consumed in larger quantities, depending on its nutritive value, it helps increase milk and/or meat production. Plants with stiff and harsh leaves are generally not palatable to animals, unlike those with softer leaves and grass. The nutritive value of the plant matters when it comes to palatability. Palatability will be determined by the texture, aroma, succulence, hairiness, leaf percentage, sugar content and other factors. Moreover, leaves are more palatable than stems. Palatability of plants can be increased by grazing livestock at the optimal grass growing stage before seed formation, using a High Intensity, Low Frequency (HILF) grazing pattern which allows uniform grazing of pastures and gives an allowance for regrowth and thus overall, uniform soil cover. Addressing palatability is often of greater concern during dry season, when grazing/pasture is less common, and farmers have to rely on stored silage.

MOST SUITABLE AGRO-ECOLOGICAL CONDITIONS

Value chain



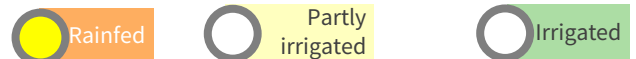
Soil texture



Climatic zone



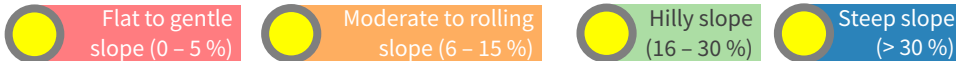
Water source



Annual average rainfall (mm)



Topography



MOST APPROPRIATE CONDITIONS AND REQUIRED INPUTS

Farming system

Does it require collective action



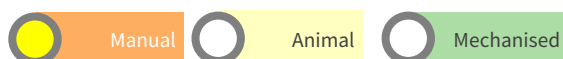
Characteristics



Farm size (ha)

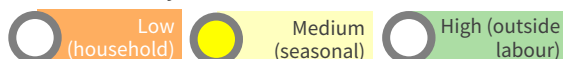


Mechanisation



Human resources

Labour intensity - level of effort

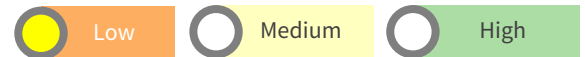


Gender/youth smart (low investment/low labour requirements)

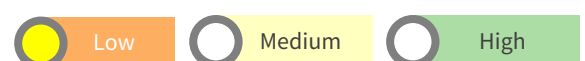


Financial resources

Initial investment



Maintenance Costs



Access to finance capital or credit required



Enabling Environment

Extension support



Access to inputs



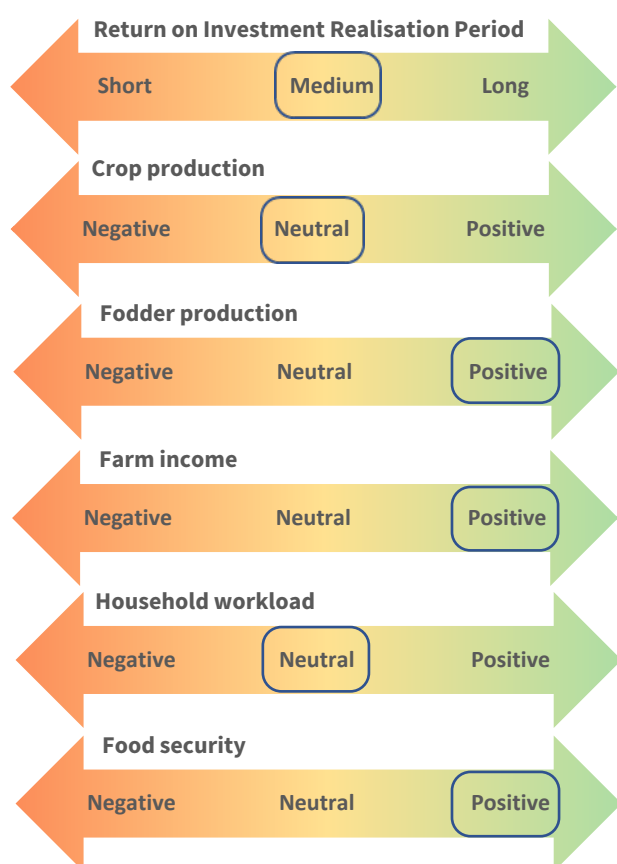
Market access



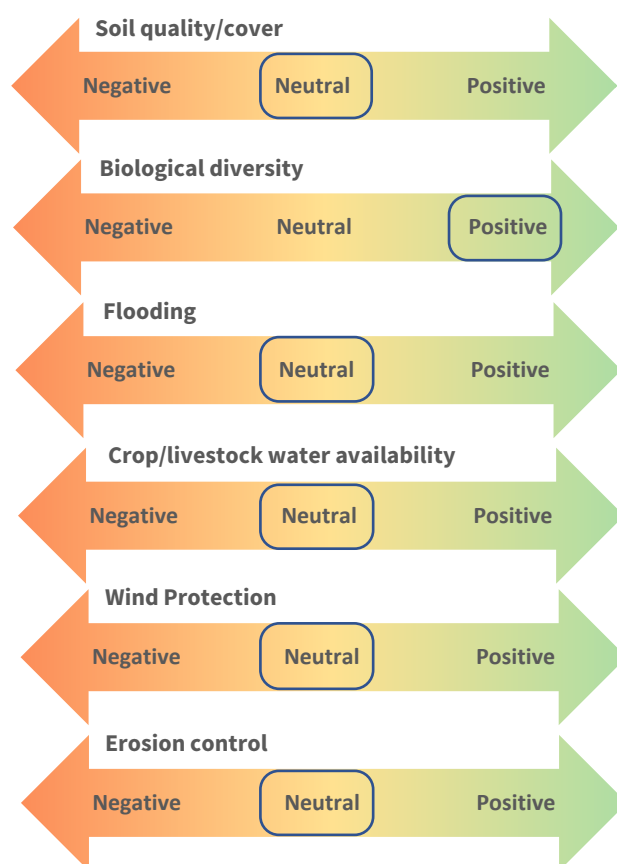
The purpose of this technical brief is to guide where this **practice, technology or strategy** could be applied. It may be applicable in other circumstances, but this brief focuses on where it is possibly **most suitable**. Content is general, and should be contextualised depending upon locality. The brief provides an overview, details of appropriate agroecological characteristics, appropriate conditions and inputs, possible outcomes and impacts, how the **practice, technology or strategy** should be applied, potential benefits and drawbacks, and provides suggestions for further reading in terms of CCARDESA materials and other sources, including those used to develop this technical brief.

POSSIBLE IMPACT/OUTCOMES

Socio-Economic Impacts Positive or Negative



Ecological Impacts Positive or Negative



These descriptors indicate whether the practice, technology or strategy has a positive, neutral, or negative impact or outcome
Those with no box are deemed not-applicable

TECHNICAL APPLICATION

Traditional knowledge can also yield positive results in identifying sources of alternative dry season feeds, especially specific types of tree leaves and grasses. In mixed maize and livestock farming system, maize stovers can be utilised for more palatable feed supplements. To effectively improve palatability, the following steps should be carried out:

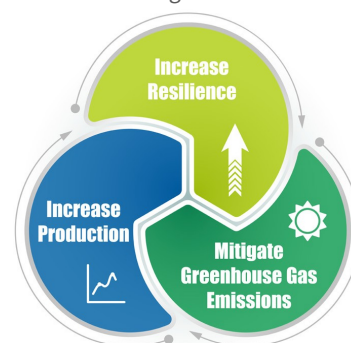
- **Step 1:** Where possible, mix grazing species to include browsers and grazers for uniform pasture use. Mixing livestock will reduce overgrazing on certain plants or plant types, distributing grazing pressure. This is a preventative measure. Over-seeding can be used to fill in bare patches in fields, improve the density of pasture, establish improved grass varieties and enhance your grass vigour. It's an easy way to improve an existing old or worn out, diseased or insect prone pasture by planting of grass seed directly into existing pasture, without tearing up the pasture, or the soil
- **Step 2: Speak to agricultural suppliers as palatability can be improved by enhancing the quality of the feed through addition of feed supplements.**
- **Step 3:** If using silage from high moisture crops, it may be worth exploring feed flavourants as they mask the odours and flavours of alcohol formed as plant material ferments. Natural flavourants can include garlic, anise and black cumin, but artificial flavours are also available. Ratios for addition to fodder is very low - 0.5 to 1.5 %.
- **Step 4:** If using dry grass for feed, chopping and addition of molasses and other concentrates can improve palatability of drier grasses; however, as it needs to be mixed with urea and water, guidance should be sought in terms of mix-ratios from a veterinarian to ensure that urea intake does not exceed recommended amounts.

CLIMATE SMART AGRICULTURE OUTCOME(S)

Reflecting how this **practice, technology or strategy** contributes to Climate Smart Agriculture outcomes

Increasing palatability of feed increases consumption and as a result, production.

Identifying methods for increasing palatability enables farmers to broaden fodder options, which can support adaptation if normal feed stock is affected.



SUMMARY/KEY ISSUES

Benefits

- Over-sowing increases forage quality and productivity.

Drawbacks

- Pasture palatability is affected by factors such as taste, smell and starch content.

REFERENCE MATERIAL

CCARDESA Related Content

- CCARDESA, 2019. Technical Brief 15, Climate Smart Pasture/Rangeland Management Options for Livestock in the SADC region.

Additional Information

- All about feed 2018. [Feed flavours for cattle the benefits](#). All About Feed website.
- The Food and Agriculture Organisation (FAO), 2013. [Agroforestry, food and nutritional security](#). Rome, Italy.
- Mikkelson, N.D. [Feed Options for Ruminants in the Tropics](#). Echo Community
- Tefera, S. 2016. [Local knowledge of grasses in semi-arid South Africa: Comparison of forage traits, status and trends, and similarities with field studies](#). Grasslands website.
- Thorne P.J., Thornton P.K., Kruska R.L., Reynolds L., Waddington S.R., Rutherford A.S. and Odera A.N. 2002. [Maize as food, feed and fertiliser in intensifying crop-livestock systems in East and southern Africa: An ex ante impact assessment of technology interventions to improve smallholder welfare](#). ILRI Impact Assessment Series 11. ILRI (International Livestock Research Institute), Nairobi, Kenya.