

Contingent crop planning with reference to fodder crops in Southern region of Karnataka

Shekara B G, Krishnappa M R, Chikkarugi N M and Manasa N

AICRP on Forage Crops & Utilization, Zonal Agricultural Research Station, V.C. Farm, Mandya - 571405

*University of Agricultural Sciences, Bengaluru- 560 065 (Karnataka), India
e-mail: bgshekara66@gmail.com*

During aberrant weather condition, availability of green fodder and natural grasses is drastically reduced leading to scarcity of fodder. Even the supply of crop residue, normally used as maintenance ration, is reduced whereas demand is increased due to lesser supply of green fodder. To mitigate the fodder scarcity following strategies can be adopted based on Agro-ecological situation and availability of natural resources, socioeconomic condition of farmers.

A. Short Term Strategies to mitigate fodder Scarcity.

- (i) Sowing of Short duration legume fodder crops like, Cowpea, Hors gram, Diancha in rice fallows during pre-monsoon (March to June) period/summer situation (January to April) under rice based cropping system in command areas.
- (ii) Sowing of Fodder Maize, Fodder Sorghum, and Fodder Pearlmillet during early kharif season as pure crop or intercropping with major crop of finger millet, Sunflower, Maize during late Kharif and Bengal gram and Coriander during rabi season for fodder purpose.
- (iii) Short duration fodder crops like Sorghum, Cowpea, can be grown as mixed crop with main crop of sesamum or Sunflower.
- (iv) Dual purpose crops like Sorghum, Bajra and Maize can be harvested for fodder purpose to mitigate the fodder scarcity.
- (v) Oats and Lucerne may be grown in October as multicut fodder to ensure availability of green fodder during lean season for longer period or it can be sown as single crop during the month of October in sugarcane fallows.
- (vi) For profused growth in cereal fodders and higher crude protein contents, application of urea as foliar spray may be taken up.
- (vii) In black cotton soil situation more area under rabi Sorghum for fodder purpose will be taken up instead Safflower/Short duration pulses/Sunflower.

(viii) Looking to scarcity of crop residues, burning of paddy straw and stubbles should be avoided. This can be properly harvested, baled, densified and fortified using 4% urea or molasses and preserved for future use.

(ix) Perennial grasses like Guinea grass, Rhodes grass, Signal grass, hybrid napier, Anjan grass etc. which grown naturally during rainy season can also be properly harvested and stored scientifically for future use.

(ix) In command areas Sugarcane tops and dry sugarcane leaves can be enriched with molasses or urea for higher crude protein content and fed in scarcity situation. In areas where sugarcane crop is drying due to moisture stress, whole crop can be harvested and used as fodder or it can be stored as silage.

(x) If deficit is very serious, sugarcane baggase may be treated and used as a survival feed.

(xi) Partially damaged Cereals grain may be diverted for feeding to save the productive animals.

(xii) Possibility of feeding of tree leaves after lopping and grazing of grasses in forest areas may be explored in consultation with Forest Department.

(xiii) Vegetable and fruit wastes may be collected from the market yards and processing factories and supply to deficit area after drying. It will provide additional feed resources and also helps in reducing the environmental pollution.

(xv) Export of feed ingredients such as oil meals or de-oiled cakes etc. may be suspended temporarily and diverted for surviving the productive animals in drought affected areas.

(xvi) Animal camps may be organized along nearby canals having adequate drinking water.

B. Long Term Strategies to mitigate fodder Scarcity.

Perennial and Non-conventional Fodder:

- Drought tolerant perennial grasses may be enhanced in arid and semi-arid regions.
- Improve natural pasture/grazing lands by *in-situ* rainwater conservation and introduction of improved high yielding varieties.
- Reseeding, inclusion of leguminous component such as stylo, sirato etc.
- Introduction of top feed fodder trees and bushes such as *Prosopis spp*,

Hardwickia binata, *Albizia* species, *Zizyphus* sp, *Azadirachta indica*, *Ailanthus* sp, *Acacia nilotica* etc.

- The less productive grasses can be replaced by recently developed more productive and drought tolerant varieties of *Cenchrus ciliaris*,

ii) Introduction of fodder trees, bushes and grasses as rehabilitation option on all kinds of wasted and abandoned lands.

iii) Introduction of fodder spineless cactus as alternate source of green fodder especially in arid regions.

iv) Creation of permanent fodder, feed and seed banks in all drought prone areas.

(a) Using residues of crops like rice, wheat, finger millet, jowar, maize, groundnut, soybean, chick pea, etc. grown in irrigated areas.

b) Harvesting and collection of perennial vegetation particularly grasses which grow during monsoon in drought prone areas and other areas of the country.

vii) Raising drought tolerant perennial grasses, trees and bushes on field boundaries as permanent source of fodder in all drought prone areas

viii) Planting of trees and bushes on the boundaries of agricultural fields in drought prone areas will be highly useful as

ix) bio-fence protection against wild animals, as an alternate source of food, fodder, fuel and income generating products during severe drought,

Contingency Plan for aberrant weather in Southern Dry Zone of Karnataka

Crop	Variety	Crop Plan				
		1-15 th July	15-30 th July	1-15 th August	15-30 th August	September to October
Fodder Maize	African Tall	Sowing will be continued	Sowing will be continued	Sowing will be continued	Sowing will be continued	Sowing will be continued
Fodder Sorghum	MP- Chari, Pusa Chari, JS-3, GS-20, SSG-59-3 and CoFS-29	Sowing will be continued	Sowing will be continued	Sowing will be continued	Sowing will be continued	Sowing will be continued
Fodder Bajra	Giant Bajra, Deena Bhandu (49-A)	Sowing will be continued	Sowing will be continued	Sowing will be continued	Sowing will be continued	-
Fodder Oat	OS-6, Kent	-	-	-	-	Sowing will be continued

Lucerne	RL-88, T9, Anand-2 Sirsa-9	-	-	-	-	Sowing will be continued
Fodder Cowpea	KBC-2, MFC- 08-14, BL-1 & BL-2	Sowing will be continued	Sowing will be continued	Sowing will be continued	Sowing will be continued	Sowing will be continued

Note:

1. If variety of fodder seeds not available, dual purpose commercial hybrid/composite/varieties can be sown for fodder purpose and harvesting at the time of 50% flowering.
2. Perennial drought tolerant grasses can be planted in waste lands, farm boundaries, field bunds