



## Crop production Technologies for Sustainable Livestock Sector

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### INTRODUCTION

Livestock husbandry is an important component of farming in India. In recent decades the production potential of livestock has increased tremendously but the changes are not in the pace in the field of feed resources. In dairy sector, cost of food alone constitutes more than 60-65% of total milk production and this has to be brought down by feeding with roughages. Green forages, both natural and cultivated are the cheapest sources of roughages and therefore intensive efforts are required to increase the supply of quality fodder to prevent starvation, provide balance nutrition and milk production.

- 1. Cereal fodder crops:** Cereal forage is actually food crops grown for cereals and grain are economically important parts. Some cereal plants are able to produce huge vegetative growth, not so efficient in grain production can be grown as fodder crops. Some of the examples are Maize, Fodder Sorghum, Teosinte, Fodder Bajra, Finger millet, Proso millet, Foxtail millet, Fodder Oats, Rice, Job's tears. Etc.
- 2. Cultivated grasses:** Grasses are cultivated for grazing as well as for cut and carry systems. Most of the forage crops are belongs to this group. In general annual types are propagated by seeds and perennial types are propagated by vegetative propagation. Some examples are Guinea grass, Napier and Hybrid napier, Para grass, Congosignal, Anjan grass, Setaria grass, Deenanath grass, Signal grass, carpet grass, Bermuda grass, Rhodes grass etc.
- 3. Miscellaneous grass:** The grasses are nit normally cultivated but occur mainly as weeds in cultivated areas, fallow lands, waste places, roadsides, grassland or aquatic areas. Some examples are Karnal grass, Goose grass, Jungle rice, Barnyard millet, water grass, Red oat grass etc.

- 4. Ground legumes:** Legumes grown for forage purposes are usually classified into ground legumes and tree legumes. All legumes which grow in close proximity with the ground are called ground legumes. Both annual and perennial types are present in ground legumes. Some of the examples are Stylo, Fodder Cowpea, Lucerne, Berseem, Cluster beans, Ricebean etc.
- 5. Tree legumes:** Tree legumes are utilized as green fodder, hay, silage as ground legumes. Tree legumes serve

as browse plant. Some examples are Subabul, Gliricidia, Calliandra, Agathi, Pigeonpea etc.

- 6. Miscellaneous Forage plants :** There are some plants which are neither grasses nor legumes are put under miscellaneous forage plants. Many of the plants are grown for some other purposes but they can be utilized for feeding animals. Some examples are Amaranthus, Sweet potato, Sunflower, Cocoa, Jack fruit, water hyacinth etc.

**Table : Production technology of some common fodder crops recommended for Assam**

Sl. No	Season	Crop	Variety	Annual/perennial	Sowing time	Average green fodder yield (tonnes/ha)
1	Kharif	Deenanath	JP-12, Pusa-3, Pusa 19	Annual	April-June	50-60 ( 2 cuttings)
2	Kharif	Hybrid Napier	NB-21, IGFR 6, Co-2	Perennial	April	80-100 ( 4-6 cuttings)
3	Kharif	Cowpea	No.10, EC 4216	Annual	April	20-25 ( single cut)
4	Kharif	Maize	Ganga5, Vijoy, African tall	Annual	April	40-45 ( single cut)
5	Kharif	Teosinte	Sirsa, TL-16, TL-12	Annual	April	30 (Single cut)
6	Kharif	Seteria	Kazungula, Nandi	Perennial	April	80-100(4-5 cuttings)
7	Rabi	Oat	Kent, RO-19, JHO-99-2	Annual	Oct-Dec	32-34 (Single cut)
8	Rabi	Lucerne	T-9, LL-comp 5	Perennial	Oct-Nov	28-30 (5-6 cuttings)
9	Rabi	Subabul	Howain, Common	Perennial tree fodder	March-Sept	85-110 (As many cut as possible)
10	Rabi	Congosignal	DBRS-1, DBRS-7	Perennial	March-July	11-12 (4-5 cuttings)