



Different grasses and their management

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The primarily grass refers to the natural botanical family known as Gramineae or poaceae. The primary definition of grass as herbage in general or the plants on which grazing animals pasture or which are cut and dried as hay.



In popular term, the grass includes all the plants that are grazed by livestock. Grass belongs to the seed plant sun-kingdom Spermatophyta and there under (1) to the sub divisional of angiosperms *i.e.* Angiospermae with rudimentary seeds (2) to the class monocotyledons,

the embryo of which have one cotyledons. Economically the grasses are probably of greater important than any other family plants. The common and most vital role of grasses is its use as fodder and pasture for the domestic animals more particularly ruminants.

Major forage genera exhibiting forage biodiversity include grasses like *Bothriochloa*, *Dichanthium*, *Cynodon*, *Panicum*, *Pennisetum*, *Cenchrus*, *Lasiurus*, etc. and browse plants such as *Leucaena*, *Sesbania*, *Albizia*, *Bauhinia*, *Cassia*, *Grewia*, etc. These genera besides many others form an integral part of feed and fodder resources of the country. For the people of lower classes and at the time of scarcity the seeds of certain

Table 1: Detail information of different grasses and their management

Crops	Botanical name	Origin	Family	Time of sowing	Method of sowing
Napier grass	<i>Pennisetum purpureum</i>	South Africa	Gramineae	Pre monsoon in the month of June-July	By transplanting Stem cutting and rooted slips
Blue panic grass	<i>Panicum antidotale</i>	Rajasthan and north western region of India	Gramineae	Break of monsoon in the months of June and July	By raising seedlings and by propagation with rooted slips
Guinea grass	<i>Panicum maximum</i>	Africa	Gramineae	In June-July on set of monsoon	By transplanting Stem cutting and rooted slips
Dashrath grass (Hedge lucem)	<i>Desmanthus virgatus</i>	India	Gramineae	It can be sown in any season	By transplanting Stem cutting and rooted slips
Marvel grass (Jinjvo)	<i>Dichanthium annulatum</i>	India	Gramineae	In June-July on set of monsoon	By transplanting rooted slips
Anjan grass	<i>Cenchrus ciliaris</i> L.	India	Gramineae	In June-July on set of monsoon	By drill method and also by planting method
Dharaf grass	<i>Chrysopogon fulvus</i>	India	Gramineae	In June-July on set of monsoon	By direct seed sowing and by raising seedlings and then transplanting
Shaniyar grass	<i>Sehima nervosum</i>	India	Gramineae	Before on set of monsoon	By transplanting Stem cutting and rooted slips

Contd... Table 1

Table 1 contd...

Seed rate	Spacing	Manure and fertilizer	Yield	Varieties
10,000 stem cutting or root slips for one hectare	100 x 100 cm spacing	Apply 10 t/ha of FYM, 50-30-30 NPK as basal dose	2000-2500 q/ha per year	Pusa Giant Napier, Gajraj, Hybrid Napier 21, Pusa Napier-1 and 2, APBN-1
For raising seedlings, 400 to 500 g of seed and 27777 root slips for transplanting	60 x 60 cm spacing is required	Apply 15 to 20 CL/ha of FYM, 40-00-00 NPK as basal dose	1500-2000 q/ha per year	Local Varieties, S-297
3 kg/ha, 10,000 stem cutting or root slips for one hectare	100 x 100 cm spacing required	Apply 10 t/ha of FYM, 40-40-30 NPK as basal dose	1000 to 1500 q/ha green fodder in seven cutting	Hamil, Coloniol, Galton
8 to 10 kg/ha Seed rate	50 x 15 cm spacing required	Apply 25 CL/ha of FYM, 50-100-00 NPK basal	75-80 t/ha green fodder	Local varieties
1,60,000 to 2,50,000 rooted slips are required/ha	50 x 25 cm spacing is required	Apply 20 t/ha of FYM, 15-00-00 NPK as basal dose	150-200 q/ha dry grass	Local varieties
2 to 3 kg/ha seed rate	60 x 75 cm or 75 x 75 cm	Apply 10 t/ha of FYM, 30-30-00 NPK as basal dose	Irrigated crop gives 400 to 500 q/ha per year green forage	Pusa Giant, Anjan, Pusa yellow Anjan, Co-1, IGFR-1, 1649, 2214, CAZRI-1, CAZRI-76, CAZRI-413
4 to 5 kg/ha seed required	45 x 30 cm spacing	Apply 40 kg N/ha in two equal splits.	200-400 q/ha in three cuts	GAUD-1 (Gujarat Dharaf-1), Local Dhari Dharaf
For seed sowing 4 to 5 kg seeds/ha, and for transplanting, 2 to 3 kg seed /ha	45 x 30 cm or 30 x 60 cm spacing are required	Basal dose of 30 Kg N and 10 Kg P ₂ O ₅ /ha be applied at the time of sowing	30 to 40 q dry fodder per hectare	Local variety and Gujarat Shaniyar-1

other grasses such as common millet, broom corn millet, Japanese millet and African millet have played an important role. Also seeds are used as feed for domestic animals.



Forage grasses are used for hay, pasture, soiling and silage. In addition there is natural grass grown in regular forest areas. Although, the total estimates of grass produced through various sources in the state are

not available, the department of forest is developing fodder as a resource to be used for drought years. It maintains on average stock of 50 lakh metric tonnes which is a quantity kept as a buffer stock for drought year and the figure is based on previous experience of requirement of fodder during drought year.



Received : 31.12.2013

Revised : 29.04.2014

Accepted : 19.05.2014

www.researchjournal.co.in

RNI No. : UPENG/2008/24395

ISSN : 0974 - 2654

INTERNATIONAL JOURNAL OF MEDICAL SCIENCES

ONLINE ISSN : 0976 - 7932

Accredited by NAAS : NAAS Score : 3.2

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