

Napier: Miraculous fodder grass

for the dry hot regions of Western Rajasthan

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The farmers of Western Rajasthan faces shortage of green fodder during extreme summer season. Productivity of Lucerne and other green grasses reduced during summer and repeated irrigations are required to take sufficient green fodder from these crops. Napier grass as green fodder can be a good alternate under these circumstances. With this objective, it was introduced at 20 farmer's sites in 2 successive years during 2018-19 and 19-20. Results were very encouraging. Napier grown under drip irrigation system saved good quantity of water and provided huge quantity of green fodder for the cattles reared at every farm in the area. This technology has a horizontal expansion of more than 200 farmers of nearby areas.

Key words: Drip irrigation, Extreme Summer, Green Fodder, Napier

LUCERNE and fodder sorghum has begin to grown by the farmers of the FFP Villages: Balarwa, Manai and Binjwadia in Jodhpur District of Rajasthan. Intense heat and high blowing dry winds during summer season significantly reduces the growth of crops and repeated irrigation are required at very short intervals of 5-6 days to obtain sufficient green fodder from Lucerne and sorghum. During the *Zaid* season, irrigation water becomes an important commodity especially in

summers in the *Thar Desert* areas. In spite of all efforts, farmer did not get required quantity of green fodder of his milch animals.

Napier grass is a hybrid grass known for high value crude protein ranging from 8-11% with 28-30.5% crude fibre and 10-11.5% ash on dry matter basis. Napier is a perennial grass which thrives very well and provide huge amount of green fodder especially under the harsh climatic condition of summers in desert. The suckers once planted in the field

continuously provide green fodder for 4-5 years and the row of grass standing in field can easily be irrigated through drip liners. Whereas, lucerne and green fodder grows satisfactorily under check basin condition where almost double quantity of water required compare to drip liners.

The performance of different varieties and hybrids of napier grass were compared at KVK, Pali, Marwar in Rajasthan and the idea to introduce this grass in adopted



Napier variety Co-4 grown at farmer's field in Villae Balarwa, Manai and Binjwadia in Jodhpur, Rajasthan.

Table 1. Yield and economics of different green fodder crops obtained from three cuttings during summer season at farmers' field in Adopted Villages (season 2020, avg. of 10 sites)

Yield (q/ha)			Benefits (₹/ha)		
Lucerne	Fodder sorghum	Napier grass	Lucerne	Fodder Sorghum	Napier grass
350 q/ha/year	415 q/ha/year	650 q/ha/year	70,000	59,000	1,12,000

villages of Farmer FIRST Programme was suggested by Sr. Sci. & Head, KVK, Pali. The suckers of variety Co-4 of Napier were brought from KVK, Pali and introduced at 10 farmer's sites in these villages in August 2018. A one day training was organised to motivate the farmers and to get them acquaint with the package of practices of napier cultivation. Each farmers was given sufficient rooted slips/stem cuttings to plant them in 0.1 ha area and drip liners were arranged by farmers them self. Traditional method of planting through ridge and furrow system was used and one rooted slip/stem cutting was planted at a depth of 5- 7 cm on one side of the ridge at 75 × 30 cm spacing. A basal dose of FYM/ compost @ 5 tonnes/ha, 50 kg N, 50

kg P₂O₅ and 40 kg K₂O/ha was applied. Looking to the extra ordinary growth and performance of napier, 10 more demonstrations were laid out in August 2019 at different farms in these villages.

During first harvesting, farmers hesitated to feed it to the cattle and they handed over the produced to the nearby *Goushalas*. The farmers were later on convinced through scientific visits at their farms and the intervention was proven successful. Now it is spreading in all the 3 FFP villages and surroundings area rapidly. At present, more than 150 farmers have setup napier grass at their farms by taking suckers from their neighbours. It has been proven a very successful intervention of FFP. Farmers in these areas have started

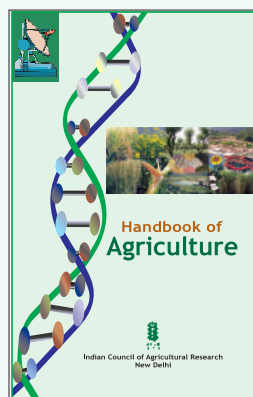
selling this grass during peak summer when there is shortage of green fodder. Irrigating napier grass with moderate saline water available in the area was also proven a boon for this crop as it thrives very well under moderate salinity condition. The feedback and survey have confirmed that feeding chopped napier alone or along with dry sorghum/pearl millet grass have increased milk production in cattle and also the body weight of bucks reared for meat purpose. Farmers also informed that planting napier in secondary and marginal land protected erosion of soil by blowing winds in summer.

The result of 10 sites revealed that Napier provided 650 q green fodder per ha in three cuttings which was higher over 300 and 235 q/ha over fodder yield of lucerne and sorghum, respectively (Table 1).

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