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Abstracts

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2004) to 4195.71 kg ha⁻¹ (CAZRI-BH-CS-5 in year 2005), while the dry fodder yield ranged from 268.32 kg ha⁻¹ (CAZRI-BH-CS-3 in year 2004) to 2184.95 kg ha⁻¹ (CAZRI-BH-CS-5 in year 2005). Germplasm CAZRI-BH-CS-5 gave the maximum green fodder yield (3967.79 kg ha⁻¹) followed by germplasm CAZRI-BH-CS-8 (3653.16 kg ha⁻¹) during the year 2004 and 2005. These germplasm lines may be utilized in further genetic improvement programme to improve forage productivity of birdwood grass for sustaining range land management.

GRASS RESOURCES OF KACHCHH REGION OF GUJARAT AND THEIR MANAGEMENT

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Kachchh is the largest district of Gujarat occupying almost 24 per cent of geographical area (54,652 km²) of the state. Kachchh is the only district of the country where four distinct ecologies namely, desert ecology, coastal ecology, grassland ecology and upland ecology exist within a 100 km span. Accordingly, Kachchh has very rich diversity of both flora and fauna. The forest area (8%) and the wastelands (18%) are the potential areas for further development of pasture land so that feed and fodder production could be enhanced to bridge the gaps between demand and supply of the fodder for existing animal population of the region. The Great and Little Rann comprise greater part (53%) of the Kachchh region. Here the ecosystem is dry and hot, and soils are saline. Both perennial and annual grasses are found in the grass land of this region. The most prominent grasses in the region are *Sporobolus marginatus*, *Eremopogon foveolatus* and *Cenchrus* spp. In Hilly area where soils are mostly shallow, *Sehima nervosum* is the major grass occupying the area. The associated grasses are *Chrysopogon fulvus*, *Panicum antidotale*, *Heteropogon contortus*, *Cympogon jawararuausa* and *Eremopogon foveolatus*. In plain areas where soils are mostly sandy to sandy loam, *Desmostachya bipinata*, *Dichanthium annulatum* and *Elusine compressa* form the major grasses. The associated grasses are *Aristida adscensionis*, *Chloris montara*, *Dactyloctenium aegyptica*, *Eragrostis ciliaris*, *Sporobolus* spp, *Aleuropsis lagopoides* and *Panicum antidotale*.

The grass lands of the Kachchh region are under the threat of degradation. The major factors that contributed towards the degradation are introduction of *Prosopis juliflora*, increasing salinity in the soil and over-grazing by the animals. Research work carried out at CAZRI, RRS Bhuj on efficient management of grasses indicated that among the three important grasses, *Lasiurus indicus* was most productive (10800 kg ha⁻¹) where as *Cenchrus setigerus* produced the minimum yield (2160 kg ha⁻¹). Among the 10 strains of *C. ciliaris* evaluated, CAZRI-75 gave the highest dry forage yield of 7460 kg ha⁻¹ followed by CAZRI-1228 (5700 kg ha⁻¹) and CAZRI-1263 (5260 kg ha⁻¹). Six strains of *C. setigerus* were evaluated and the highest producer was CAZRI-76 (3860 kg ha⁻¹) followed by CAZRI-296 (2760 kg ha⁻¹) CAZRI-1 (2610 kg ha⁻¹). Among the various strains of *L. indicus* evaluated, the maximum dry forage yield was given by CAZRI-1952 (12930 kg ha⁻¹), followed by CAZRI-1825 (10550 kg ha⁻¹). These results clearly showed that the productivity of the grassland can be significantly improved if suitable grass species with improved cultivar are introduced in the