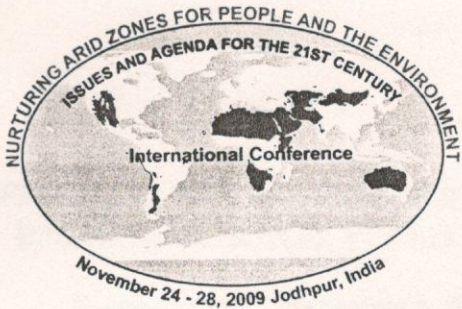


Golden Jubilee CAZRI (1959 - 2009)



# INTERNATIONAL CONFERENCE ON NURTURING ARID ZONES FOR PEOPLE AND THE ENVIRONMENT: ISSUES AND AGENDA FOR THE 21<sup>st</sup> CENTURY

November 24-28, 2009  
Jodhpur (India)

## Abstracts

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Arid Zone Research Association of India  
CAZRI Campus, Jodhpur - 342 003 Rajasthan, India

## EVALUATION OF BUTTERFLY PEA (*CLITORIA TERNATEA*) FOR HIGHER FORAGE YIELD UNDER ARID REGION OF GUJARAT

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The north and north western zone of Gujarat falls under the arid ecosystem where rains are scanty and the animal husbandry forms the major component of sustainable livelihood of the population. Due to high population density of animal and insufficient and erratic rainfall, the region always remain in deficit in quantity and quality of feed and fodder for its livestock. The efficiency of animal production is closely related with the nutrient value of the forage available in the region. Since grasses namely *Cenchrus* spp., *Dicanthium* spp. and *Heteropogon* spp. etc. form the major component of fodder available to the animal in the region, the feed quality remained poor especially for protein. Introduction of perennial legumes in cultivable wasteland and integration of pasture and suitable forage legumes may improve the availability of quality fodder and make the crop-livestock system more sustainable.

Butterfly pea (*Clitoria ternatea*) is a highly palatable forage legume generally preferred by livestock over other legumes. It is adaptable to a wide range of temperature, rainfall and soil types. It has vigorous growth tolerance to dry period and heavy grazing pressure that make this suitable for wasteland development. It exhibits excellent re-growth after cutting or grazing within short-period and produce high yields also. It can be grown with all tall grasses for rotational grazing. Considering the importance of the crop, the studies were initiated to identify suitable high yielding genotypes of butterfly pea for the fragile ecosystem of arid Gujarat.

Fifteen accessions of butterfly pea were evaluated in randomized block design with three replications for their growth and yield at Kukma, Bhuj during rainy season of 2008. The observations recorded were height of main axis, number of primary branches plant<sup>-1</sup>, leaves plant<sup>-1</sup>, green and dry fodder weight plant<sup>-1</sup> and green and dry fodder weight ha<sup>-1</sup>. The protein content of fodder was analyzed as per standard method. The accessions differed significantly for growth parameters namely, plant height, primary branches and leaves plant<sup>-1</sup>, and yield attributes. The fresh and dry weight plant<sup>-1</sup> ranged from 23.3-33.7 g and 11.5-20.1 g plant<sup>-1</sup>, respectively. The dry fodder yield ranged from 1123 to 2107 kg ha<sup>-1</sup>. The accessions EC 15331-1, IGFRI 173-1, IGFRI 23-1 and CAZRI 1440, CAZRI 1441 yielded more than 2 t ha<sup>-1</sup>. The local strain produced the lowest dry fodder yield of 1123 kg ha<sup>-1</sup>. The accessions also differed significantly for protein content. The accession CAZRI 1433 recorded significantly higher protein content (18.71% than accessions no. CAZRI 466, 1439/1428, IGFRI 23-1 and the control. The accession CAZRI 1428 recorded the lowest protein content of 15.50 per cent.