

Crop cafeteria – An effective tool

to showcase diversity and choice of cultivars to farmers

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Crop yield in given agro-climatic conditions are determined by interactive effects of many factors. Amongst these, choice of suitable variety and appropriate agro-techniques are major determinants of crop yields. Majority of farmers, particularly in hot arid regions have been using old/traditional varieties and hardly following recommended seed rate and spacing due to lack of knowledge. Popularization of improved crop varieties along with better agro-techniques among the farming community through different extension and training programme has been advocated but it takes lot of time for adoption on large scale. Therefore, for disseminating the significance of improved varieties and crop management practices among the farming community a concept of Crop Cafeteria was executed where diverse improved varieties along with suitable crop management practices for pearl millet, moth bean, mung bean and cluster bean were demonstrated at Research Farm of ICAR- CAZRI. Thousands of farmers visited the Crop Cafeteria and witnessed that yield can be increased 2-3 times by adopting improved crop varieties and crop management practices compared to their conventional management with traditional varieties.

Key words: Crops, Crop cafeteria, Improved varieties, Production technology

CROP PRODUCTION in north-western hot arid regions of Rajasthan is predominantly rainfed. Pearl millet, cluster bean, mung bean and moth bean are major crops being grown over 12 million ha and accounts for about 80% of the total *khariif* cropped area under rainfed conditions of arid western Rajasthan (Table 1). These crops possess peculiar morpho-physiological adaptation to survive and producing reasonably stable yields under extremes of temperature and moisture stresses. Besides providing

economic yields, these crops provide quality fodder for the livestock and hence have an immense significance to the existing farming systems of the arid regions because livestock is an integral component of agrarian economy of the region. Furthermore, the legume crops (cluster bean, moth bean and mung bean) play an important role in restoration of soil through fixing the atmospheric nitrogen, litter fall and arresting soil erosion. But the crop yields are low due to low and erratic rainfall, recurring drought and poor soils

which make the crop production very risky in the region. The average productivity of pearl millet, cluster bean and mothbean in north western hot arid region are <0.5 t/ha. The lack of use of improved varieties and crop management practices (improper seed rate and method of sowing, use of untreated seed, imbalanced use of fertilizers, plant protection measures and weed management practices) are major reasons for low yields of crops in the region.

Table 1. Status of major arid zone crops in India and Rajasthan.

Crop	India			Rajasthan			% of India	
	Area (Lakh tonnes)	Production (Lakh tonnes)	Productivity (Lakh ha)	Area (Lakh ha)	Production (Lakh tonnes)	Productivity (kg/ha)	Area	Production
Pearl millet	74.7	98.0	1312	41.5	41.6	1001	55.5	42.4
Clusterbean	56.0	28.2	504	47.9	22.2	465	85.4	78.7
Mungbean	43.2	21.7	502	21.2	10.5	495	49.1	48.3
Mothbean	14.2	4.5	317	13.9	4.4	313	97.7	96.7