EVALUATION OF LOCALLY CULTIVATED HYBRIDS AND VARIETIES AGAINST *Pyricularia Setariae* NISIKADO

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Pearl millet [*Pennisetum glaucum* (L.) R.Br.] also known as Bajra is an important grain and forage cereal of India.It provides 11-12% of the world's supply of protiens, 12.4% of moiture, 5% of lipids, 67.5% of carbohydrad and 8.8% of iron. Though the maximum acreage and production of pearl millet is in Rajasthan (5.17M/ha, and 4.28M/tonne) but Haryana gives highest average yield per hectare (1769 kg/ha). In Madhya Pradesh during 2010, the crop was cultivated in an area of approximately 1.97914 thousand hectares with the production of 293506 metric tonne out of this Chambal and Gwalior division contributed 165079 thousand ha. And 274899 metric tonne in area and production respectively (1). This figure indicate that Chambal and Gwalior division jointly contribute 84% and 94% in pearl millet area and production of the state respectively. Several diseases caused by fungi, bacteria, viruses and nematodes have been recorded (2), out of them downy mildew, ergot, smut, blast and rust are widespread and destructive disease of pearl millet in India.

Table-1 : Evaluation of locally cultivated pearl millet hybrids / varieties against blast.

S.No.	Hybrid /Varieties	Blast severity (%)
1	Pioneer 86 M 64	22.50 (28.32)
2	Pioneer 86 M 52	15.00 (22.79)
3	Pioneer 1044	20.00 (26.56)
4	Krishna 7201	7.50 (15.89)
5	J K 778	15.00 (22.79)
6	J K 26	32.50 (34.76)
7	Kaveri boss	12.50 (20.70)
8	PHI 7688	22.50 (28.32)
9	Pro agro 9444	12.50 (20.56)
10	Pioneer 86 M 86	25.00 (30.00)
11	Krishna hybrid bajra	10.00 (18.44)
12	JBV 2	12.50 (20.70)
13	JBV3	17.50 (24.73)
14	Hybrid bajra prima	20.00 (26.56)
15	Local	27.50 (31.63)
	SE(m) ±	2.56
	CD at 5%	7.75

Fifteen promising and locally cultivated hybrids and varieties were planted in a randomized block design with two replications during kharif season. The plot size was 5 m. length single row keeping 50 cm between rows and 10 cm within the plants. Blast severity was recorded according to modified cobb's scale on the tagged plants of each line. In each line five plants were randomly tagged. From each tagged plant, the blast severity was recorded on six leaves (two lower, two middle and two upper). sFor statistical analysis the data of blast severity were transformed under angular transformation.

In the present study fifteen promising and locally cultivated hybrids and varieties were evaluated against blast under natural field conditions. Out of them none were found free from the blast, however the minimum severity was recorded in Krishna 7201 (7.50%), while its maximum severity (32.50) was recorded in JK 26. Krishna 7201 was significantly superior over Pioneer 86M64, Pioneer 1044, JK26, PHI1768, Pioneer 86M86, JBV3, Hybrid bajra prima and local, while it was statistically at per with Pioneer 86M52, JK778, Kaveri boss, Pro agro 9444, Krishna hybrid bajra and JBV2.

The present finding is supported by the disease survey carried out in 2009 reveals that the blast severity in the hybrids/varieties cultivated in northern Madhya Pradesh was in the range of 1-10% (4).

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