

SOME TRADITIONAL GENOTYPES OF JOWAR FROM NANDED DISTRICT, MAHARASHTRA

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ABSTRACT

Present paper deals with some traditional genotypes of *Jowar* from Nanded district of Maharashtra state. Under present day situation most of the genotypes are rarely observed. They are economically very important and are used as medicinal plants. It is essential to conserve them for next generations. Traditional genotypes of this popular crop, e.g. *Talki*, *Warhadi*, *Mahu*, *Dukri*, *Pivla*, *Pandharkavdi*, *Bhendi* and *Pandhrapivla* have been described.

Key words : Traditional Genotypes, *jowar*.

Introduction:

Sorghum bicolor (L.) Moench is one of the most important cereal crop widely grown for food, feed, fodder and fuel in the semiarid tropics of Asia (Reddy *et al.*, 2010). It is fifth most commonly cultivated cereal crop (Poehlman, 1994). It is used as staple food in more than 30 countries. Nabimba *et al.*, (2005) reported that *sorghum* is grown for varying uses, that included production of alcohol, sweet beverage and local bread. *Sorghum* grains are mostly used as food. Stover from *jowar* is an important source of dry fodder in Asian countries. The crop is raised both in *kharif* and *rabi* seasons in Marathwada region of Maharashtra state, as a drought-resistant crop and as an important source of food (Ilaria *et al.*, 2015)..

In Nanded district, *jowar* is the main staple food, which is grown over an area of 255425 hector with an annual production of 2,39500 tones, with the production potential of 1020 kg per hectare.

Materials and Methods:

Nine genotypes of *jowar* were collected from Nanded district. Details of each crop were elicited from informants and

herbarium specimens were prepared. The sites selected for this research work were located in both *rainfed* as well as *kharif* season. The verification was made on the basis of repeated information. Vernacular names of traditional genotypes of *Sorghum* appeared interesting and therefore those have been noted. The seed samples were collected from different localities. The information on traditional genotypes of *Sorghum* has been summarized as under.

Talki : Height is 215-225 cm., bent panicle is the characteristics feature of this genotype. It produces more nutritious fodder for cattle. It requires less water, The crop duration up to maturity is 110-120 days. It is recommend for cultivation in low rainfall areas. The quality of *roti prepared from its flour* is good. Its young tender green grains is used as *Hurda* after roasting. Production 6-7 q/acre. It has a sweet grain and used for roasting purpose at dough stage of crop.

Bhendi: Height 180-235 cm., Panicle is much feathered, Early maturity. Grains shiny and reddish in color. The *of Roti* is very good. Dried grains are popped and used as a snack. Produces light weight fodder. It is medicinally very valuable. Production 7-8 q/acre.

Pivla: Height 165-175 cm. Panicle compact and rigid. Grain dark yellow. It produces good quality of fodder. This genotype is suitable for cultivation under good moisture condition. It has medicinal value as antidiabetic agent. Production, 5-6 q/acre.

4). **Dukri:** Height 160-167 cm. Panicle is inverted, compact and rigid. Lustrous yellowish white bold heavy grain. Quality of roti made from the grains is good. Fodder quality very good. Production 6-7 q/acre.

Mahu: Height up to 235 -250 cm. Grains yellowish white. Quality of the grains is fairly good. Fodder is expensive. It has high Demand in market. Heavy to medium soil is well for its cultivation. Higher production, 12-15 q/acre.

Warhadi: Height up to 235 -250 cm. Grains medium bold with pearly white. The grains are sweet and tasty, compact panicle with oblong shape. Better quality of *roti* and fodder can be obtained from this genotype. Heavy to medium soil is good for cultivation of this genotype. Production, 5-6 q/acre.

Pandharapivla : Height 165-175 cm. Panicle loose and rigid. Tall growing habit. Grains dark white. Provides good fodder quality. Suitable for cultivation under good moisture condition. It has medicinal value against diabetes. Production, 5-6 q/acre.

Pandharkavdi : Height 165-175 cm. Panicle loose and feathered. Tall growing, non-lodging habit. Grain dark white. Good fodder quality. Easy threshability with more sweetness, excellent aroma and taste. This genotype is suitable for cultivation under good moisture condition. Production, 5-6 q/acre.

A comparative account of quality of grains has been summarized in Table 1.

Table 1. Quality of grains of Sorghum genotypes

Sr. No.	Traditional Genotype	Wt. of 100 grains (g).	% Purity
i)	<i>Bhendi</i>	2.20 gm	96 %
ii)	<i>Dukri</i>	3.12 gm	98 %
iii)	<i>Mahu</i>	2.45 gm	97 %
iv)	<i>Pandhrapivla</i>	2.25 gm	96 %
v)	<i>Pivla</i>	2.35 gm	95 %
vi)	<i>Pandharkavdi</i>	2.11 gm	94 %
vii)	<i>Talki</i>	2.44 gm	95 %
viii)	<i>Warhadi</i>	2.23 gm	96 %

Results and discussion:

Eight traditional genotypes of *Jowar* from Nanded district have been described. Some of them are still under cultivation, while other are very rare. Among the 8 genotypes. *Pivla* is commonly and *Mahu* is rarely cultivated genotypes in Nanded district. *Pandharapivla* genotype is considered as endemic to Nanded district. Conservation of these genotypes should be given priority.

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PLATE - 1

Some traditional Genotypes of *Sorghum*



Talki Jowar



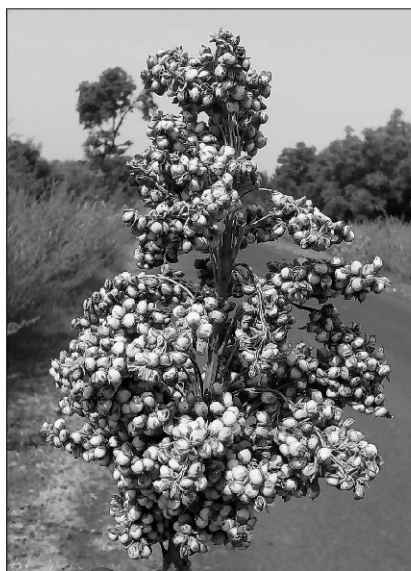
Bhendi Jowar



Pivla Jowar



Dukri Jowar

PLATE - 2**Some traditional Genotypes of *Sorghum*****Mahu Jowar****Warhadi Jowar****Pandharapivla Jowar****Pandharkavdi Jowar**