

A Study of Sorghum Fodder in Perspective of Different Cultivation Method

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Abstract: *Sorghum (Sorghum bicolor)* is very important non-leguminous fodder crop. The productivity of Sorghum is studied under different cultivation methods such as Mulching, Shednet, Ridge and Furrow, Raised bed. Results are studied and compared which shows that Mulching shows greater response than that of shed net, ridge and furrow, raised bed and controlled.

Keywords: Fodder crops, Sorghum, productivity, cultivation methods

1. Introduction

Sorghum as a green vegetation plant which is very common in furthest parts of India and nearly 2.5 million ha space is implanted for the period of kharif season [Kelley and Rao (1995)]. In summer, it is grown under irrigated conditions, multicut sorghum is very popular. Forage sorghum is categorized by quick growth, high biomass accumulation, and dry matter content and wide flexibility beside drought surviving ability. It is also appropriate for silage and hay production.

Agricultural cropping pattern was studied in different zones of country and their average yields in comparison to National average yield potential. Multiple cropping systems was the main features of Indian agriculture and it attribute to rain fed agriculture and prevailing socio-economic situations of the farm community [Bakshi and Wadhwa (2004)]. The chief possible benefits of this repetition are to maintain soil moisture, to avoid weed development, to regulator wind and water destruction, to regulate temperature and to improve soil structure. By way of a result of those developments yield may also increase. Predicted that Water use capacity was more in raised beds rather than controls. In the vertisols of Maharashtra, among the diverse *in-situ* moisture Shade nets are often

affected by temperature set up over crops to decrease heat stress; even though, in enclosed shed net houses, temperatures throughout the day.

2. Material and Methods

2.1 Experimental site

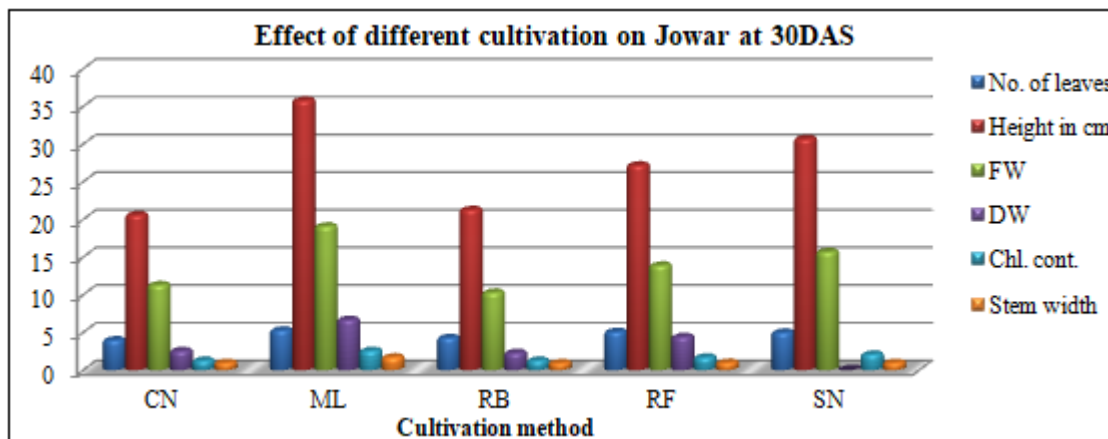
The experiments were conducted in Botanical garden in the Botany Department of Marathwada University Aurangabad and at the village Revgaon of district Jalna

3. Result and Discussion

During the present studies efforts were made to grow Jowar a different growth conditions. Results were recorded at 30 days. In Jowar fodder crop maximum number of leaves were recorded in the mulching cultivation method after 30 days at sowing, was 5.3 followed by results obtained in the ridge and furrow cultivation method having (5.1) mean value and SN have (5.0) number of functional leaves. The number of leaves in raised bed and control are close to each other which are 4.3 and 4.0. This result is in line with the findings of (Mehdi, et.al.2009) who obtained higher values for number of leaves at the widest spacing.

Table: Effect of different cultivation methods on fresh weight of Sorghum

Days after sowing	Cultivation Methods	No. of leaves	Height in cm	FW (g)	DW (g)	Chl. cont. (mg/g)	Stem width (cm)
30DAS	CN	4.0	20.6	11.3	2.56	1.28	0.96
	ML	5.3	35.8	19.1	6.7	2.58	1.72
	RB	4.3	21.3	10.3	2.3	1.29	0.94
	RF	5.1	27.2	13.9	4.43	1.71	0.98
	SN	5.0	30.7	15.7	4.3	2.10	0.97



Graph: Effect of different cultivation methods on fresh weight of Sorghum

4. Conclusions

Fodder is important entity for the maintenance of livestock. Livestock is a supporting source of economy of the farmers living on the edge.

The growth performance of maize is greatly affected by the different cultivation practices. From the recorded result it could be concluded that, mulching method for plantation of forage crop is better than other methods. This method is viable as requirement of water is less and productivity is more. Thus, for similar agro ecologies of Marathwada, this mulching method recommended for higher yield of forage crop.

5. Acknowledgement

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