Forage Res., **39** (2) : pp. 102-103 (2013) **http://forageresearch.in**

OPTIMISING SOWING TIME OF MULTI-CUT SORGHUM FOR MAXIMISING FODDER YIELD

SURESH KUMAR*, R. K. ARYA AND K. K. DAHIYA

RDS Seed Farm
CCS Haryana Agricultural University,
Hisar-125 004 (Haryana), India
**(e-mail : sureshsilla@gmail.com)*

(Received : 13 December 2013; Accepted : 27 December 2013)

SUMMARY

In India, there is a short supply of about 38 per cent green fodder, especially during the summer season. Sorghum is an important widely grown for forage. It is fast growing, palatable, nutritious and utilized as silage and hay besides fresh feeding. Sorghum crop is adaptive to vast environmental conditions and in India, it provides green fodder to the animals for a considerable length of period i. e. from May to November. The quality of sorghum feed and fodder is acceptable for feeding all animals. The sowing time of the multi-cut sorghum affects the fodder supply to considerable extent and hence, proper sequencing of the sowing time should be done in order to achieve maximum fodder yield along with maintaining the regular supply of the green fodder. Therefore, the present study was carried out at Fodder Production Unit, CCSHAU, Hisar during **kharif** season of 2009 by staggered sowing of the multi-cut sorghum every month starting from April to September. The results revealed that sowing of the multi-cut sorghum during the month of first forthnight of May produced the maximum green fodder yield, which was followed by sowing during the second fortnight of April. The maximum fodder yield of multi-cut sorghum with sowing during this period may be due to less attack of insect-pests at the juvenile stage due to high temperature prevailing during summer months. Therefore, crop had opportunity to grow and develop up to maximum extent.

Key words : Sowing time, fodder yield, sorghum

In Indian agriculture, livestock plays a pivotal role in the development and progress of mankind with crop production programme as a complimentary enterprise. India supports about 20 per cent of the world's livestock and 16.8 per cent human population with only 2.3 per cent of the world's geographical area. It is leader in cattle (16%) and buffalo (55%) population and has the world's second largest goat (20%) and fourth largest sheep (5%) population. The livestock sector contributes 32 per cent of the agricultural output, which in turn is 27 per cent of total GDP. It is expected to rise 50 per cent by 2020 (Agriculture Statistics, 2010).

At the national level, there is a short supply of about 38 per cent green fodder, especially during the summer season. Continuous supply of well balanced nutritive forage is essential to the milch animals for enhancing milk productivity (Meena *et al*., 2012). Sorghum is an important crop widely grown for forage. It is fast growing, palatable, nutritious and can be utilized as silage and hay besides fresh feeding. It is fast growing, palatable, nutritious and utilized as silage and hay besides fresh feeding. Sorghum crop is adaptive to vast environmental conditions and in India it provides green fodder to the animals for a considerable length of period i. e. from May to November. The quality of sorghum feed and fodder is acceptable for feeding all animals. The sowing time of the multi-cut sorghum affects the fodder supply to considerable extent and hence, proper sequencing of the sowing time should be done in order to achieve maximum fodder yield along with maintaining the regular supply of the green fodder. Keeping the above in view, present investigation was carried out to optimize the sowing time of sorghum for maximising fodder yield.

The present study was carried out at Fodder Production Unit, CCSHAU, Hisar during the year 2009 by staggered sowing of the multi-cut sorghum starting from April to September. The sowing of multi-cut sorghum was done during different dates at regular interval during the months of April, May, June, July, August and September. All the recommended package of practices were followed to raise the good fodder crop.

TABLE 1
Average fodder yield of multi-cut sorghum

Month	Fortnight	Average fodder yield (q/ha)
April	1st Fortnight	375
	2nd Fortnight	387
May	1st Fortnight	409
	2nd Fortnight	374
June	1st Fortnight	317
	2nd Fortnight	326
July	2nd Fortnight	213
August	1st Fortnight	229
September	1st Fortnight	159

The fodder crop was harvested at 50 per cent flowering and fodder yield was recorded.

The results of the study revealed that sowing of the multi-cut sorghum during the month of first forthnight of May produced the maximum green fodder yield, which was followed by sowing during the second fortnight of April (Table 1 and Fig. 1). The maximum fodder yield of multi-cut sorghum with sowing during this period may be due to less attack of insect-pests at the juvenile stage due to high temperature prevailing during summer months. Therefore, crop had opportunity to grow and develop up to maximum extent. Moreover, the rainfall during the growth stage of crop enhances the growth of sorghum leading to increased fodder yield.

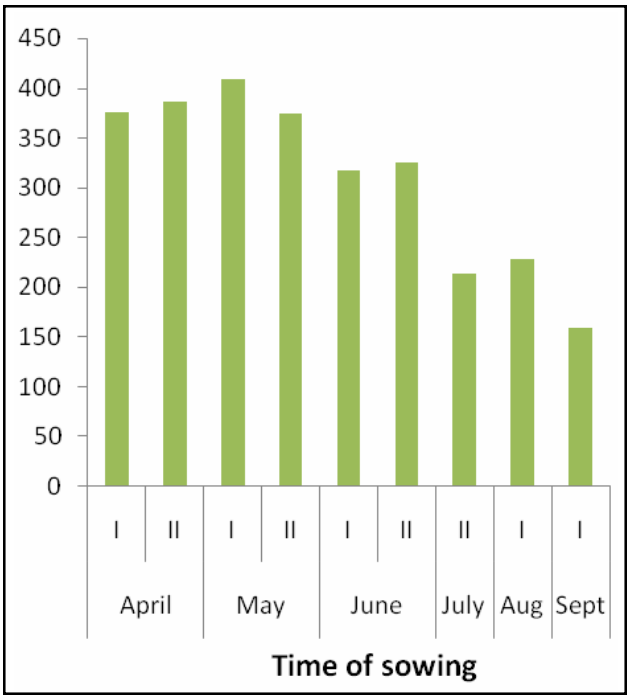

Fig. 1. Average fodder yield of multi-cut sorghum sown during different periods.

REFERENCES

Agriculture Statistics, 2010 : Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Government of India (*www. Indiastat.com.in*).

Meena, A. K., P. Singh, and P. Kumar, 2012 : *Forage Res.*, **37** : 238-240.