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Performance of sorghum based intercropping systems under dry sowing and normal sowing conditions

■ AJIT PANHALE, S.S. ANGADI¹ AND MANJUNATH HEBBAR¹

Members of the Research Forum

Associated Authors:

¹Department of Agronomy,
University of Agricultural Sciences,
DHARWAD (KARNATAKA) INDIA

ABSTRACT : A field experiment was conducted at the Main Agricultural Research Station, University of Agricultural Sciences, Dharwad on medium black clayey soil during *Kharif* 2011 to study the performance of sorghum based intercropping systems under dry and normal sowing conditions. Significantly higher plant height (188.3 cm), LAI (3.21), LAD (60.06 days) and total dry matter production (182.18 g) were recorded at harvest of sorghum in dry sowing as compared to normal sowing of sorghum. Similarly, plant height (46.6 cm), LAI (2.38) and total dry matter production (11.73 g) were higher at harvest of legumes in dry sowing as compared to normal sowing of legumes. However, sole sorghum recorded significantly higher LAI (3.41), LAD (60.26 days) and total dry matter production (184.93 g) at harvest which was at par with sorghum intercropped with soybean. Dry sowing enhanced yield of sorghum and legumes by 16.8 and 19.95 per cent, respectively (51.85 q ha⁻¹ and 12.74 q ha⁻¹ grain yield of sorghum and legumes, respectively) over normal sowing of sorghum (43.14 q ha⁻¹) and legumes (10.30 q ha⁻¹). However, sole crop of sorghum recorded significantly higher grain yield (52.48 q ha⁻¹) and stover yield (14.91 t ha⁻¹) and it was at par with sorghum intercropped with soybean (48.38 q ha⁻¹ and 12.51 t ha⁻¹, grain and stover yield, respectively).

KEY WORDS : Dry sowing, Intercropping, Leaf area index, Leaf area duration, Normal sowing

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Author for correspondence :

AJIT PANHALE

Department of Agronomy,
University of Agricultural Sciences,
DHARWAD (KARNATAKA) INDIA
Email : ajit.panhale32@gmail.com