



POPULAR ARTICLE

Fodder sorghum cultivation and management practices

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Manuscript received: September 17, 2026; Decision on manuscript, September 21, 2026; Manuscript accepted: September 30, 2026

Intricacies of the subject

Fodder sorghum (*Sorghum bicolor* L.) is an important fast-growing, drought-tolerant cereal fodder crop widely cultivated for feeding cattle and other ruminants. It provides a reliable source of green fodder, particularly under water-limited conditions, and generally contains about 6–7% crude protein. The crop can be cultivated as single-cut or multi-cut varieties and hybrids, allowing farmers to select cultivars according to their fodder requirements and management conditions. Successful production depends on suitable soil, timely sowing, proper land preparation, adequate seed rate and spacing, balanced fertilizer application, seed treatment, irrigation, and effective weed management. Fodder sorghum is generally sown from September to November using about 10–12 kg seed per acre with closer row spacing to obtain dense plant growth. Under irrigated conditions, single-cut varieties may produce approximately 18–20 tonnes of green fodder per acre, while multi-cut varieties provide repeated harvests and continued fodder production. Proper harvesting at the appropriate stage and management of subsequent regrowth are essential for obtaining higher green fodder yield while maintaining good nutritional and fodder quality.

Introduction

Fodder sorghum (*Sorghum bicolor* L.) is one of the important cereal fodder crops cultivated for supplying nutritious green feed to livestock. Its rapid growth, adaptability to different growing conditions, and relatively high drought tolerance make it particularly useful for fodder production in areas where water availability is limited. Sorghum fodder contains approximately 6–7% crude protein and can be fed to cattle and other ruminants as an important source of green forage. Depending on the production objective, single-cut varieties, multi-cut varieties, and multi-cut hybrids are available, including cultivars such as PC 6, PC 9, CSV 30F, PC 23, MP Chari, SSG 59-3, CSH 24MF and CSH 20MF. The crop performs well in medium to deep black soils with good drainage and is generally sown during September to November. Proper land preparation, seed treatment, optimum seed rate and spacing, balanced nutrient application, timely irrigation, and effective weed control are important for achieving good crop establishment and fodder yield. Harvesting at the appropriate growth stage, particularly around 50% flowering for the first cut, followed by timely harvesting of regrowth in multi-cut cultivars, helps maintain a balance between fodder yield and nutritional quality.

Sowing time: September–November.



Soil type: Medium to deep black cotton soils with good drainage.

Fig.1: Fodder Sorghum crop stand



Land preparation: One deep ploughing followed by 2 to 3 harrowings to achieve a fine tilth and clear crop residues. Types of varieties suitable for cultivation: Available in single-cut, multi-cut sorghum hybrids or varieties

Single-cut varieties: PC 6, P.C.9, C.S.V. 30F

Multi-cut varieties: PC 23, MP Chari, SSG 59-3

Multicut hybrids: CSH 24MF, CSH 20MF

Sorghum seed and fodder type: CSV 27, PSV 31 and PSV 56

Multicut varieties: COFS 29, COFS 31 and CVS 33MF

Sowing time: September to November

Seed rate: 10–12 kg per acre for fodder purposes to ensure closer, denser growth.

Spacing: Keep rows 30 cm apart and plant spacing at 10 cm.

Fertilizer management: Apply a basal dose of nitrogen, phosphorus and Potash (general recommendations suggest around 20 kg N, 16 kg P₂O₅ and 12 kg K₂O per acre split or as locally advised) and after one month apply 20 kg nitrogen

Seed treatment: Treat seeds with Thiram/captan 3 g/kg) to prevent seed-borne diseases like smut and charcoal rot.

Irrigation management: First irrigation immediately after sowing, second irrigation at 3rd day of sowing, third irrigation one week after sowing. Depending on the soil type and moisture in the soil, give irrigation.

Weed control: Spray pre-emergence herbicide at 3 grams per lit within 24 to 48 hours after sowing. Intervene with weeding or hoeing around 20 and 40 days after sowing to keep the field clean.

Harvesting time: Take the initial harvest when 50% of the crop reaches the flowering stage to balance optimum forage yield and high nutritional quality. Allow subsequent re-growths to develop and harvest them at strict 40-day intervals to maximize seasonal green fodder production.

Fodder yield: Under irrigated conditions single cut: 18 to 20 tonnes/acre

Multicut varieties: First harvest: 16 to 18 tonnes/acre; after every harvest, 8 to 10 tonnes of green fodder yield.

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