

SORGHUM-SUDANGRASS

SORGHUM BICOLOR X SORGHUM BICOLOR Var. Sudanese

WARM SEASON ANNUAL GRASS



PRODUCTION GOALS

Not Effective
 Very Effective

Quick Growth	
Lasting Residue	
Soil Builder	
Nitrogen Fixation	<i>n/a</i>
Nitrogen Scavenging	
Erosion Reduction	
Compaction Reduction	
Biofumigation Potential	
Weed Suppression	
Forage Harvest Value	
Grain Harvest Value	

Sorghum-sudangrass has an upright growth habit and a deep fibrous root. If given appropriate fertility, the biomass production is substantial, with plants growing 6-12 feet tall. With thick roots systems, sorghum sudangrass can decrease compaction. Mid- season cutting has been shown to increase both yields and root penetration.

TOLERANCES

Flood	
Heat	
Drought	
Shade	
Low Fertility	
Salinity	
Optimal pH	5.5 - 8.0

SOIL DRAINAGE CLASS

Very Well	
Well	
Moderately Well	
Somewhat Poor	
Poorly	
Very Poorly	

AREA & ADAPTABILITY

Sorghum-sudangrass is a true warm season crop (C4 photosynthesis) and as such thrives under as much heat as possible. While it may contribute to a seed-blend throughout the province, it is best suited to the southern regions.

Winter Hardiness:
Does not overwinter

Rate Drilled	Rate Broadcast	Depth	Frost Seeding	Minimum Germination Temperature	Seeds #
15-35 lbs/ac (17-39 kg/ha)	18-42 lbs/ac (20-47 kg/ha)	0.25-1.5in (0.6-3.8 cm)	No	18°C (65°F)	8600 /lb (19,000 /kg)


Sorghum-sudangrass should be planted into warm soils and increasing temperatures in the early summer as it does not tolerate cool soils. Heavy water user and can be seeded to 2" maximum if chasing moisture availability. Irrigation may be necessary if there is little soil moisture. There are varietal differences in seeding rate to consider. Brown mid-rib varieties are also available for higher fiber digestibility for forage use.


Management Considerations

As a warm season crop, under cool, sub-optimal growing conditions, sorghum-sudangrass becomes a poor weed competitor, as other cool-tolerant species can thrive. In adapted regions it produces a very large amount of biomass which can be challenging to incorporate back into the soil. Sorghum sudangrass is a hybrid between forage sorghum and sudangrass which can also be considered as a cover crop.

Nitrate poisoning can occur in times when soil nitrogen levels are high but growth is limited. Such as during a drought, cool cloudy conditions or after a frost. Feed should be tested for high nitrate levels so feed out can be monitored appropriately in livestock.

Sorghum-sudan grass can produce prussic acid poisoning that can be fatal to cattle under some conditions. However, there is varietal differences in prussic acid content. Grazing when plants are young or stressed (e.g. drought or frost-killed) poses the highest risk.

Inter-seeding Potential 

Volunteer Establishment 

Nitrogen Concentration No data

Dry Matter Yield

2000-10,000 lbs/acre
2240-11,200 kg/ha

Termination

Sorghum-sudangrass can be terminated with tillage, mowing or the application of herbicide. Sorghum-sudangrass has zero frost tolerance and clear nights near 0°C will also terminate it. If there is sufficient biomass before a killing frost, sorghum sudangrass can be used as mulch. Termination by mowing can be difficult as regrowth is rapid, which is why it can be used as a multiple-cut forage.

References

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Disclaimer

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