

# Sudangrass

## Sorghum-Sudangrass Hybrids

### Pearl Millet

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## FOR SUMMER FORAGE

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There is a need for additional grazing or green forage on many Virginia farms during July and August. It is during these months that the cool season grasses are usually least productive. Sudan-grass, sorghum-sudan and pearl millet are summer annual grasses which fit well into the forage program on livestock farms when utilized as grazing or green-chop. If not needed for these uses, they can be harvested for hay or silage to furnish additional stored feed.

One-third to 1/2 acre of one of these grasses will usually provide adequate grazing or forage for one mature animal during the critical summer months. The productive period of these supplemental forages can be lengthened by seeding half the acreage early and the remainder 4 to 6 weeks later.

Pearl millet is preferred over foxtail millet since the latter will not recover after grazing or harvesting. Pearl millet, sudangrass, or sorghum-sudan hybrids should be seeded alone rather than as mixtures since they mature at different times.

There are a number of reliable and productive varieties of each of these annual grasses. Refer to the current version of VPI&SU Publication 15 for a listing of suggested varieties.

These crops are adapted to a wide range of soils. However, they do best on a deep, fertile soil with high water-holding capacity. A good corn soil will give the best results.

### FERTILIZATION

Have the soil tested at the VPI&SU Agronomy Laboratory. Broadcast and disc-in  $P_2O_5$  and  $K_2O$ . Apply the rates for corn grain recommended in the Soil Fertility Guides (VPI&SU Bulletins 297, 298, 299) based on soil type and soil test levels. Fifty to 80 lbs. of N should be applied before seeding. In the absence of a soil test, apply 50-80 lbs. per acre of  $P_2O_5$  and  $K_2O$ , respectively. Thirty to 50 lbs. of N per acre after each cutting or intensive grazing is usually needed for maximum yields.

### SEEDING

Prepare a firm seedbed as for corn. These crops may be seeded in 30" to 36" rows or broadcast. Rows are preferable if cultivation is necessary for weed control or if row harvesting is desirable. For broadcast seeding, drilling is preferred; if drilling is not practical, the seed may be broadcast and harrowed in. Avoid seeding deeper than 1". PREFERRED SEEDING DATES ARE MAY 15 TO JULY 1.

#### SEEDING RATES (Pounds Per Acre)

	Broadcast	Rows
Sudangrass	25-40	15-20
Pearl Millet	25-40	15-20
Sorghum-Sudan Hybrid	25-50	15-30

Soybeans may be seeded with these crops, but they do not recover well after grazing or cutting. Soybeans do not increase dry matter yields, but may slightly raise the protein content of the mixture. If soybeans are used, sow at the rate of one bushel per acre and reduce the above seeding rates by one-third.

### MANAGEMENT

Sudangrass, sorghum-sudan, or pearl millet should be ready for grazing or cutting 6 to 8 weeks after seeding. Moisture content and quality decrease with maturity, but dry-matter yields increase.



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**PEARL MILLET** – Graze rotationally. For highest yields, delay grazing until 18" or taller, and remove the animals when the plants are grazed to an average height of no less than 5". Manage the regrowth in the same way.

Cut for green-chop, hay, or silage between the early boot and fully headed stages. Wilt before ensiling if cut earlier than the soft dough stage. If regrowth is desired, leave at least a 5" stubble.

**SUDANGRASS** – Graze rotationally. Do not begin grazing until plant height is at least 20". Remove the animals when they have grazed the plants to an average height of 5". Regrowth should be managed in the same manner.

Cut for green-chop, hay, or silage between the early boot and fully headed stages. Wilt before ensiling if cut earlier than the soft dough stage.

**SORGHUM-SUDAN HYBRIDS** – Graze rotationally. Do not commence grazing until the plants are 30" tall. Remove the animals when the plants are grazed to an average height of 5" to 7" or earlier if regrowth occurs. Regrowth should be 30" in height before grazed again.

Cut for green-chop, hay, or silage between the time the hybrid is 30" tall and the early heading stage. Wilt before ensiling if cut before the soft dough stage. Do not cut closer than 5" to 7" if regrowth is desired.

Restricting the area to be grazed to that needed in a 1- to 3- day period will result in less waste. For sudangrass and sorghum-sudan hybrids, this management will reduce the opportunity for new growth while the livestock are present, offering less possibility of prussic acid accumulation.

## PRUSSIC ACID POISONING

Sudangrass, sorghum-sudan hybrids, and other sorghums have a prussic acid potential which, under certain conditions, makes them unsafe for livestock consumption. Sorghum-sudan hybrids normally have considerably higher prussic acid potential than recommended varieties of sudangrass when grown under similar conditions. How-

ever, when the management practices suggested above for sudangrass and sorghum-sudan are followed, there is little hazard to livestock under normal conditions.

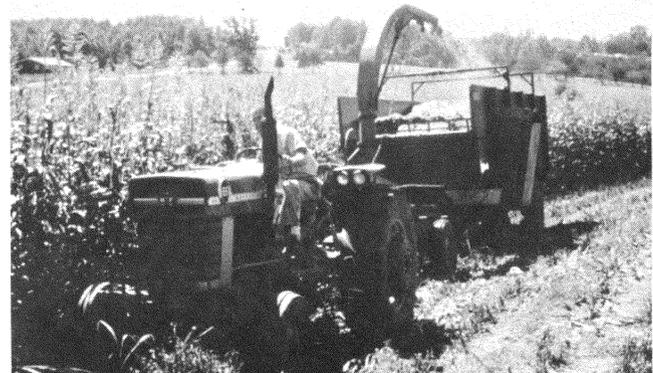
Young plants, suckers, or new growth may contain toxic amounts of prussic acid. Stunting or slow growth resulting from drought, frost, freezing, or temperatures near frost often causes prussic acid to accumulate to a toxic level.

Drought-damaged sudangrass or sorghum-sudan hybrid plants should not be fed within 4 days after a good rain. If plants of questionable safety must be grazed or fed as green-chop, feed dry forage along with the fresh material. Never allow hungry animals to fill up on the green material. Use of tester animals is advisable before allowing the entire herd to eat questionable plants.

Sudangrass or sorghum-sudan hybrid plants of doubtful safety for grazing or green-chop due to frosting, freezing, or to being in the early stages of growth can be fed safely as silage after the ensiling process is completed. They are also safe to feed as hay after being properly cured and dried. Frosted or frozen sudangrass or sorghum-sudan hybrids or their stubble should not be grazed until dead and thoroughly cured. Pearl millet has such a low prussic acid potential that no precautions are necessary.

## USE BY HORSES

Horses and ponies grazing or eating sudangrass or sorghum-sudan hybrids as green chop may contact a sometimes fatal disease called cystitis syndrome. Hay from these grasses, properly cured and stored can be safely fed to horses and ponies.



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