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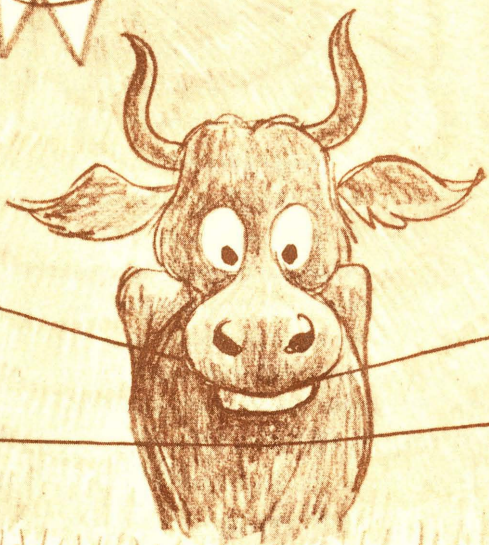
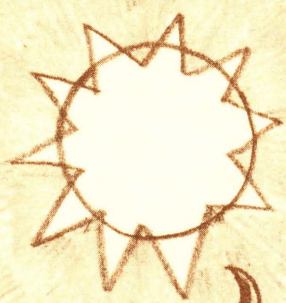
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# SUDAN GRASS IN MICHIGAN

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# SUDANGRASS IN MICHIGAN

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Sudangrass grown on fertile corn soil is the most productive annual or emergency pasture crop for the southern half of Michigan's Lower Peninsula. It makes substantial growth and provides abundant pasture during the hot summer months. In favorable seasons it has given good yields on productive soils as far north as Mecosta and Missaukee counties in northern Michigan.

## Varieties

The Piper variety is preferred for higher yield and all-around qualities. In tests conducted in six Michigan counties over a 4-year period, it produced about 3/10 ton per acre more hay than either Sweet or Common. Piper also has a lower prussic acid potential than other varieties, a high resistance to leaf diseases, very good regrowth in late summer and excellent palatability. Both certified and uncertified seed is available.

## Uses

**Pasture.** Sudangrass pasture is very palatable to livestock when handled properly. It has an average carrying capacity of 30 to 45 cow days-per-acre-per-month during July, August, and September. When livestock are first turned on, it is frequently stocked at 3 cows per acre.

**Hay.** Hay is seldom made from sudan as it is coarse and slow to dry in the swath and windrow.

**Silage.** Sudan makes good palatable silage. The proper stage to ensile is after heads have formed and the seeds have reached the hard dough stage. The average yield is about 8 tons per acre but many yields have been considerably higher. Ordinarily the silage protein content is slightly higher than that of corn silage but the total digestible nutrients are about 20 percent less than good corn silage.

**Green chop.** Sudangrass is a good crop for green chopping. It makes rapid growth before and after cutting. Green chopping should start when the plants are about 24 inches tall and may continue until they are almost mature.

## Pasture Management

Livestock should not be turned on to sudangrass until the plants are 18 inches tall—usually about 6 weeks after planting. When the grass has been pastured off close to the ground, animals should be removed to allow regrowth to 18 inches tall before re-grazing. After it is 18 inches high, there is little danger in pasturing since tests show that prussic acid content is low in the plant when it reaches that height. It is the new short growth that may be dangerous. A safe rule to follow is this: **to avoid any possible livestock poisoning, do not pasture sudan when it is short.**

## Seed Production

Generally, seed production has not been satisfactory in Michigan because of low germinating seed. However some farmers have successfully harvested a good seed crop. For best results, seed in rows and cultivate. The seed usually requires some drying. Artificial heat is recommended in the drying process since seed harvest comes in the fall when there is usually high humidity.

## Forage Seedings

Making a legume seeding in sudangrass is risky. Some farmers have had reasonable success in some years. Tests were conducted at East Lansing on a soil that holds moisture well, to study the effect of various companion crops on the establishment of alfalfa. They showed that stands and subsequent yields of alfalfa were satisfactory when the sudan was cut for hay August 2 at a 3-inch height and cut again at the same height on October 3. Cutting on August 2 at an 8-to-10 inch height and on October 3 at a 3-inch height gave a fair stand but only about 30 percent of the seedlings survived the winter.

For successful forage seeding in sudangrass, special attention must be given to management. The first sudan growth should be pastured off close to the ground after it is ready for pasturing (18-inches). It should be allowed to regrow to 18 inches and then be pastured off close again. This reduces shading of the alfalfa seedlings. However as mentioned, even the best management practices will not guarantee a good stand of healthy seedlings.

Despite some success with alfalfa seedings in sudangrass, it is hazardous as a normal operation and should be used only on highly productive, moisture-retentive soils and where other seeding methods cannot be used.

### Production Practices

1. Plant on land which can produce a good crop of corn.
2. Prepare a good clean seedbed.
3. Sow seed between May 20 and June 10 for maximum yields, with earlier date preferred.
4. Place the seed about 1 inch deep with a grain drill which has been set to plant 2 pecks of wheat. This gives a seeding rate of about 20 to 25 pounds per acre.
5. Determine requirements for phosphorus and potassium by a soil test. At least 50 pounds of actual nitrogen per acre will be needed.
6. Use high quality seed of the best variety obtainable.