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SUDAN GRASS (Andropogon sorghum var.).

This grass is an annual belonging to the sorghum family. It was introduced from South Africa by the Bureau of Plant Industry, as the forage for the (true) form of Andropogon intermediate between the cultivated sorghums and Johnson grass. It is not an annual, although generally planted each year, as it germinates very closely, but it lacks the underground stems or rootstocks which make Johnson grass difficult to eradicate. In root characters Sudan grass is more like Johnson grass than the other seed grasses. It is a very coarse and leafless form of the common sorghums.

Drought resistant.—It grows in rows and cultivated on fairly rich soil it grows to a height of 7 to 9 feet and has stems one-fourth inch in diameter. Broadcasted it rarely exceeds 3 to 5 feet in height and the stems are much finer. It is so coarse and leafless that it resembles Johnson grass, but grows more rapidly and is more drought resistant than that of Johnson grass. The hulls or glumes are awned when in flower and are purplish in color, but the color usually fades to a light yellow as soon as ripe, and most of the awns are broken from the seed in threshing. The seed itself when threshed closely resembles Johnson-grass seed, except that it is more leafless and much coarser than Johnson grass seed. Seedsmen will find it easier to adulterate with Johnson-grass seed, this danger can be avoided by the close scrutiny of a seed expert, and thereto lies, perhaps, the greatest danger in the use of Sudan grass by the American farmer. Unscrupulous seedsmen will find it easy to adulterate it with Johnson-grass seed. This danger can be avoided by the close scrutiny of a seed expert, and thereto lies, perhaps, the greatest danger in the use of Sudan grass by the American farmer.

Climate and soil requirements.—Sudan grass is not particular about the soil, but it does best in a fairly rich, clean, loamy or sandy soils. Poorly drained or waterlogged situations are not favorable, as it is more drought resistant than Johnson grass and grows better on drier soils. In this respect it is similar to Johnson grass. It grows quite well on very dry soils as long as 70 to 90 days intervene before the date of the first expected frost. Sudan grass can be sown in rows 18 to 42 inches apart and cultivated like corn, or can be drilled in rows 18 to 24 inches apart. It is convenient to plant the rows 30 to 42 inches apart, so that he can use his corn cultivator. Seeds sown in rows 28 to 36 inches apart will yield 8 to 10 pounds of seed per acre of good seed are sufficient. In rows 18 to 24 inches apart, 4 to 6 pounds of seed per acre, or 12 to 14 pounds of drill seed, or 16 to 24 pounds of broadcast per acre are required, according to the rainfall.

Harvesting.—Sudan grass is easy to cut with a mower and cuts readily, so that the hay-making process is much the same as that of millet or any other hay grass, but it is desirable to cut the second and third cuttings when the grass can also be cut and used as a sowing crop to good advantage. No data on its pasture value have yet been secured, but, being annual, it would have to be resown much more often. Sudan grass would be valuable to use in mixture with very coarse or rough swards, especially if the manure is applied to the land when cut.

Utilization.—Sudan grass makes a very nutritious and palatable hay which is greatly relished by stock, horses, and cattle. It makes no more fauce than its might suggest, as it is less digestible. Yields of 2 to 4 tons per acre of cured hay are common, and under irrigation they run as high as 5 to 6 tons per acre. A good Sudan grass can also be cut green and used as a sowing crop to good advantage. No data on its pasture value have yet been secured, but, being annual, it would have to be resown much more often. Sudan grass would be valuable to use in mixture with very coarse or rough swards, especially if the manure is applied to the land when cut.

Remarks.—Sudan grass matures for hay in about the same length of time as millet, and is an excellent seed grass along with African millet. Sudan grass is used as a hay sward in the Southern Great Plains region and it has superior, and it promises of being of great value in all parts of the South except in the humid sections. This grass is seed by the Bureau of Plant Industry and seedlings can be secured. The quality of the hay is much superior to millet hay; therefore it is recommended as a substitute for millet. Sudan grass is used on the South Plains, and it is the best substitute for millet in the South in the near future. Sudan grass is a great stems and the yield and quality of the hay are second only to that of millet.

Owing to the high price of seed, seed production is at the present time a source of great profit. Actual yields of 500 to 1,000 pounds of seed per acre are obtained in the Southern Great Plains section, but the yield of seed must be limited quite largely to the North, where the land is free from Johnson grass. Sudan grass crosses quite readily with the cultivated sorghums, so that the seedsmen will have to be careful that the sown seed is pure. The best way to secure pure Sudan sorghums crosses, but when the field is to be used for hay the presence of crossing is not of any great importance.

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