## MICHIGAN AGRICULTURAL COLLEGE EXPERIMENT STATION

## PRESS BULLETIN NO. 49

To the Editor:

Many inquiries have come to the Experiment Station recently for information relative to Sudan Grass. This bulletin may be of interest to many of your readers.

R. S. Shaw, Director.

## SUDAN GRASS

Sudan grass is of African origin and was first introduced in United States, in 1909. It has proved to be well adapted to certain sections of the southwest, and during the past two or three years has been rather extensively advertised as a a valuable grass for general use over much of the United States. Michigan farmers have therefore become interested in any available data on this grass and its adaptability to Michigan conditions.

Sudan grass is a tall, coarse, annual grass closely related to the cultivated sorghums and the Johnson grass of the southern states. It resembles the latter grass in general appearance but differs in not having the underground root stalks which make the Johnson grass so difficult of eradication. It makes a growth of three to eight feet, according to the thickness of planting, fertility of soil, season, etc. In the northern states one, or sometimes two crops are secured, and in the southern states as many as four crops, are sometimes harvested.

Sudan grass does best where the summers are long and hot. It is a fairly good drought resisting grass. While it may be grown on a variety of soils, it does best on fertile soils that are well supplied with organic matter. The growth on very light or badly run soils is small.

Sudan grass has been little tried in Michigan, but its success under our northern climate is problematical. However, the following points are worthy of consideration by those contemplating seeding it. The very large yields sometimes reported from fertile soils in the southern states should not be expected. Sudan grass should occupy much the same place on the farm as millet or sorghum rather than as a substitute for alfalfa, clover or timothy. It is a true grass (not a legume) and the crop is produced at the expense of the store of plant food in the soil. On many of our soils, especially those in which the nitrogen content is relatively low it would seem best to depend upon some of the numerous leguminous crops that are well adapted to Michigan conditions. It is therefore recommended that farmers seed only small trial plats for general.

East Lansing, Michigan May 10, 1916 forage purposes until more data are available in regard to the value of this crop for growing under Michigan conditions.

Sudan grass produces seed abundantly and may be matured as a seed crop in Michigan. The price of the seed has been very high the past few years but has dropped materially recently and as long as the high prices are maintained Sudan grass should be a profitable seed crop for the Michigan farmers. Pure seed produced in the northern states is in greater demand than seed produced in the Johnson grass infested areas in the southern states.

On account of the heat loving nature of the plant and the slow development during the early periods of growth, the seed bed should be thoroughly prepared, well firmed and free from weeds, and the planting should be delayed until the season is fairly well advanced and the soil is thoroughly warmed. May 25 to June 10 is a favorable time for seeding. When grown for hay it should be close drilled or broadcasted, using twenty to twenty-five pounds of seed per acre. When grown for seed, it should be drilled in rows thirty to thirty-six inches apart, using four or five pounds of seed per acre and cultivated throughout the season the same as corn.

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The crop should be cut for hay just after full bloom. While Sudan grass is rather coarse and is harvested late in the season, it can be cured satisfactorily under favorable weather conditions. Mr. C. G. Williams of the Ohio Station reports a three-year average yield of 4.3 tons per acre as compared with 3.9 tons of German millet. A limited number of Michigan farmers reporting consider it equal or slightly better in yield than millet. Under average or fairly favorable conditions, one and a half to four tons per acre could probably be produced.

Sudan grass hay is palatable to stock and seems to have no objectionable qualities which would make it unsafe for feeding. Judging from available analyses the hay is materially lower in feeding value than millet, sorghum or timothy. However, final judgment in regard to feeding value should be reserved until more data are available.

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