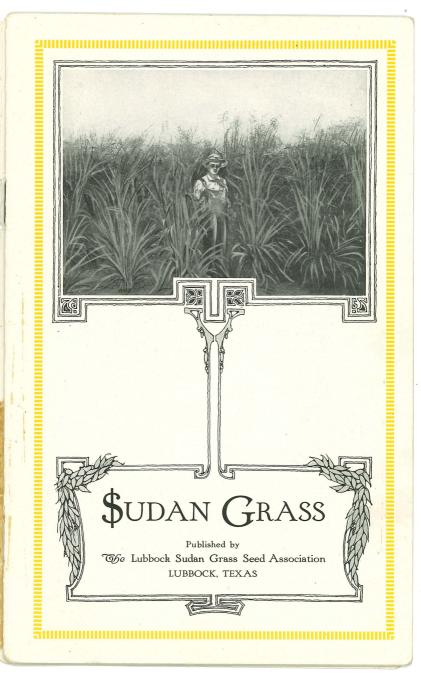
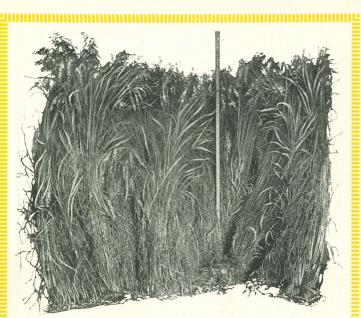


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Sample of Sudan Grass grown in Lubbock County, Texas, 1914

Sudan Grass



MERICAN FARMERS have still something to learn from foreign countries. Agriculture has been going on for countless centuries in Asia, Africa and Europe, where the gradual evolution of certain valuable crops has been attained through long ages of patient experiment. The foreign farmer contended with drouth, rainfall and pest, long before the first furrow was turned in America, and the accumulated experience of

generation after generation has taught him many useful lessons in crop raising. It is the part of intelligence for us to reap the benefit of what knowledge he has acquired and the Department of Agriculture has recognized this fact by studying plant production systematically. Its experts have introduced into this country from abroad the native and cultivated forage crops with a view to securing new species that will prove valuable commercially in sections where the need is the greatest.

• Hay crops adapted to the South and the dry lands of the West have been investigated and studied. Many experiments have been carried on and some remarkably successful results obtained. A number of grasses have been tested under varied conditions in various places and while some have been found best adapted to a purely local area, others have proved easily cultivable practically everywhere.

I Sudan Grass is the most important of all these grasses and the experiments made with it have been so thorough as to give the Department absolute confidence in stating that it is assured of a permanent place in our agriculture. State Experiment Stations have likewise gone into the question and unite in concurring with the recommendations of the Department.

I Sudan Grass was first introduced into America in March, 1909, the seed having been obtained from the Director of Agriculture, Khartum, Sudan, Africa. So satisfactory were the first tests of this seed that more was rapidly grown in order that extensive trials could be carried out and its possibilities as a forage crop thoroughly studied and understood.

 \P This grass is very closely related to the cultivated sorghums, more closely than Johnson grass, because it has no troublesome rootstocks. It is finer in growth and more leafy than sorghum, produces more and better

hay than millet and exceeds timothy in nutritive value. It is easily cured and handled as hay and makes good ensilage.



Harvesting Sudan Grass crop on 200-acre field near Lubbock, Texas



Sudan Grass field after cutting

■ Sudan Grass can be grown nearly everywhere—from the Columbia Basin to the Gulf of Mexico, from Virginia to California. Like other sorghums, it does best in a warm climate, but excepting in high altitudes where continued cool weather prevails, thoroughly satisfactory results have been very generally obtained. It requires no special quality of soil—blackland, clay and sandy loam have all produced uniformly successful crops. Its most valuable quality, however, is its resistance to drouth. In dry or semi-arid sections it thrives to perfection—and yet excessive moisture does not injure it or cause blight. To sum up, it is adapted to any type of soil excepting water-logged lands and desert.

It outdistances all competitors in quantity of yield. Three or four cuttings, each producing one to two tons of hay per acre, can be secured. A fair average is five tons to the acre each season, which is far in excess of the yield of millet, sorghum or Johnson grass. In addition, the first crop at maturity produces in the neighborhood of 600 pounds of seed per acre under ordinary conditions, but under irrigation and with careful cultivation, over 2,000 pounds to the acre have been secured.

beef and milk, work and driving animals, it has proved to be a splendidly nutritious feed. It is sure to become an important ensilage crop. Mr. B. Youngblood, Director, Texas Experiment Stations, says: "There is no better grass in the world for conditioning work animals or milk production than Sudan." Where alfalfa is the principal crop and constitutes the constant diet of dairy animals, its high protein content is productive of digestive trouble and disarrangement that will promptly disappear when the feed is changed. Sudan Grass is an excellent crop to grow for mixing with alfalfa.

I Thus a forage crop so sure and generous in its yield, so palatable and nourishing as Sudan Grass gives every farmer the greatest opportunity and incentive to raise live stock. Nothing is more profitable or of more urgent necessity in reducing living costs today throughout the United States than an increase in beef production.

I Sudan Grass does not produce rootstocks, and in this country is strictly an annual. It cannot infest the land like obnoxious Johnson grass—the first frost kills it off and its roots are easily eradicated by plowing. Being an annual, it can be fitted into any crop rotation without trouble. Furthermore, it has shown no tendency to persist in fields as an annual weed through volunteer sowing.

 \P Sudan Grass seed closely resembles Johnson grass in appearance, and great caution is necessary when buying it to obtain protection from adulteration.

000

How to Grow Sudan Grass

How to Plant

I Sudan Grass may be planted in cultivated rows, in close drills, or broadcast. When the supply of seed is limited, it is recommended that the crop be planted in cultivated rows thirty-six inches apart, and for such seeding, from one and one-half to three pounds of seed per acre. In arid regions this is the best planting process. Where the rainfall is ample or it is to be sown for hay, it can either be sown in drills eighteen inches apart, using six pounds per acre, or be sown broadcast, using fifteen to twenty pounds per acre. When it is desired to drill the seed the ground is plowed in the spring and harrowed down well. This assists in warming the soil and hastens germination of the seed.

It should not be planted until all danger of frost is over and the ground thoroughly warm, as the young plant is more



Threshing Sudan Grass Crop on a Lubbock County, Texas, Farm

tender than sorghum. It should be planted as soon as danger of frost is past, in order to give time for several cuttings during the season. The results of tests carried out by the Department of Agriculture would indicate that for the extreme south the best time for seeding lies between April 1 and 15; farther north in the latitude of Oklahoma and Kansas, April 15 to May 15; and north again in the latitude of Nebraska and South Dakota, May 1 to June 1.

Harvesting

Q A feature about Sudan Grass of great importance to the farmer is that the crop is not injured by

standing beyond the proper stage of maturity. This allows the haying process to be extended over a long period, if there is a rush of other work to be done, without impairing to any extent either the quality or the quantity of the hay.

Threshing

Comparative Analysis of SUDAN and Johnson (Grasses
SUDAN Moisture	Johnson 8.69
Ash	12.36
Ether Extract 1.68	1.68
Protein	7.44
Crude Fiber	27.40
Nitrogen Free Extract	45.15

Adulteration

Q Unfortunately, it is extremely difficult to distinguish Sudan Grass Seed from that of Johnson grass even when the two are compared side by side, as they are so much alike; and, of course, it is impossible to do so when in bulk. This fact creates a situation of real danger for all purchasers, for adulteration is so easily and successfully accomplished. Such adulteration may be accidental, caused by careless methods of inspection which would allow a Sudan Grass field infested with Johnson grass to be harvested and threshed for the seed market. But whether adulteration is accidental or deliberate, the penalty imposed upon the planter is the same—crop failure and spoiled land.

I There is only one way to be assured of an absolutely pure product. That is through the co-operation of a number of growers in selected territory in instituting strict methods of supervision of their fields during the entire period of growth by responsible and expert State officials, close inspection of all harvesting operations and seed grading, and rigid observance of all regulations and conditions governing the tagging and selling of seed prescribed by the government when inspection certificates were issued.

 \P A vast amount of seed is being offered for sale that is not and can not be pure, and any such adulterated mixture will cost in crop failure and deterioration of land through the sowing of Johnson grass, obnoxious pests and weeds, a good hundred times the small amount of money saved by the planter in purchasing it.

The Evidence for Lubbock Sudan Grass Seed

¶ Mr. Vinall of the Forage Division of the Department of Agriculture at Washington, has gone on record as saying that the Lubbock County Sudan Grass crop was the *finest he had* seen anywhere in the United States.

¶ Mr. A. N. Short, Superintendent, Temple-Belton Experiment Station, Texas, has written:

"The past year (1913) Lubbock County grew more Sudan than rany county in the United States, and more than any State in the Union. This year (1914) it will still maintain the lead in seed production."

 Mr. B. Youngblood, Director, Texas Experiment Stations, has stated:

"We took special pains to organize a local experiment association at Lubbock and have a considerable acreage planted there, as we felt that the Texas Plains country would be one of the best seed producing centers in the United States."

The Lubbock Sudan Grass Seed Association

I This is an Association of Lubbock County growers representing about 95 per cent of the total Sudan Grass acreage in the county. It was organized for the purpose of producing and distributing direct to farmers Sudan Grass Seed that should be absolutely pure and reliable. Lubbock County has been recognized as one of the centers of Sudan Grass Seed production and the intention of these growers was to see that Lubbock County's reputation should be sustained.

I During the growing season five inspectors were employed under the direction of Victor L. Cory, Superintendent of State Agricultural Experiment Station No. 8, situated in Lubbock County. The duty of these inspectors was to see that the fields were kept clean of all hybrids, weeds and Johnson grass and inspection was carried on row by row at different periods of the crop's growth. Only from such acreage as received their official approval was the seed accepted by the Association as suitable for sale.

 \P The Lubbock Association is a permanent organization. It is composed of the leading men in Lubbock County, whose interests are devoted to the development and progress of their County. The reputation of every individual member is pledged to maintain the strength, value and integrity of the guarantee given by the Association to all seed sold under its name.

Buy Your Seed Now

 \P There will be a shortage of *pure* Sudan Grass Seed before sowing time comes. *Now* is the time to place your order if you want *pure*, reliable, guaranteed seed. Later on it will be a matter of paying top prices for greatly inferior quality —adulterated, rejected seed mixtures.

"I am inclined to think that the Texas farmers who intend to buy seed, should do so now, rather than next Spring, when seed speculators will in all probability run the price clear out of reach."

 Mr. A. B. Conner, Agronomist, Texas Experiment Stations, writes:

"The present acreage will scarcely supply the needs of Texas farmers." $\!\!\!$

 \P As long as our supply lasts our prices will remain the same, and every pound of our seed is absolutely guaranteed to possess full germinating power and to be free from any adulterant.

Sudan Grass

Is put up in 1, 2, 5, 10, 25, 50, and 100-pound packages.

Send in your order—now

I Fill out the blank form enclosed and mail to us.

Remember —

Q There's no such thing as saving money on seed. Lowprice seed is low-grade seed—sure to be adulterated besides with Johnson grass and other pests. Considering the magnitude of the yield, *pure* Sudan Grass Seed is the most truly economical investment you can make. Study this table.

Comparative Cost of Seed for Planting One Acre of Forage Crops SUDAN Sorghum Cane Millet Oats Timothy Clover Alfalfa Wheat Grass \$1.50 \$1.50 \$3.50 \$1.00 \$1.00 \$1.50 \$3.50 \$4.00 to to to to \$4.00 \$4 00 \$2.00 \$2.00



Che LUBBOCK SUDAN GRASS SEED ASSOCIATION

Selling Agent for Lubbock County Experiment Station

LUBBOCK, TEXAS

THE following letter was written to the Wholesale Distributing Agents of the LUBBOCK SUDAN GRASS SEED ASSOCIATION and clearly defines the position taken by Texas State Agricultural authorities in relation to certificates issued by inspectors.

I These certificates have been subjected to much abuse. They have no real value unless backed up by a thoroughly reliable and responsible organization who will see to it that all regulations and conditions attached to the proper harvesting of Sudan Grass Seed are fully and faithfully observed.

A. B. CONNER, Assistant Director A. S. WARE, Secretary

Texas Agricultural Experiment Station B. YOUNGBLOOD, Director College Station, Texas

December 26, 1914.

L. H. KASSEL & COMPANY, Fort Worth, Texas.

Gentlemen: I beg to acknowledge receipt of your two letters of December 22 and 23. Beg to state that there is no such commodity as "Government inspected." "Government warranted," or "Government tested" Sudan Grass Seed on the market. The only inspection of which I know is that made by the Texas Experiment Station during the past summer. This inspection was made upon the condition that each individual farmer-grower would tag his seed before it left his farm and on this tag show the name of the grower, the grade of seed as determined by the inspection committee, and the grower's guarantee as to purity. Unless the seller holds faith with us in the matter of labeling, you can readily observe that our inspection is worth nothing either to the grower, seller or purchaser. Without the information on the tag, how could any purchaser determine the quality of seed? It is obvious that he could not, for the reason that the inspection committee itself guarantees nothing and would not be in position to tell the purchaser anything as to quality unless this committee could determine who grew the seed, as it only has record of the grade of seed found in certain fields on certain farms.

Mr. V. L. Cory, Superintendent of Texas Sub-Station No. 8, Lubbock, Texas, who was chairman of the inspection committee there, is the only one in position to make definite statements concerning the Lubbock Sudan Seed Association's seed. I would suggest that you have your purchasers write him when in doubt as to the quality of a given lot of seed. If the Lubbock Sudan Seed Association is acting in thorough good faith upon our understanding with its officers when we inspected the seed, Mr. Cory is in position to give satisfactory evidence as to the grades of any lot of seed produced and handled by that Association.

By-ASW

B. YOUNGBLOOD, Director.

Read also letter from Mr. Victor L. Cory (Superintendent Sub-Station No. 8) on page 15.

Yours very truly.

B. YOUNGBLOOD, Director

V. L. CORY, Sup't

Texas Agricultural Experiment Stations Lubbock Sub-Station

LUBBOCK, TEXAS

Sudan Grass Products Co., Fort Worth, Texas.

December 31, 1914

Gentlemen: I beg to acknowledge receipt of yours of December 28 concerning the part taken by myself in the inspection of Sudan Grass fields this year. As chairman of the Inspection Committee of the Lubbock Sudan Grass Seed Association, I can assure you that the work of the committee was carefully, thoroughly and satisfactorily done. As superintendent of Sub-Station No. 8, I made other inspections, largely outside of Lubbock County. In these cases I gave certificates of inspection, with the expectation that the grower would conform to the rules of the Texas Experiment Association in selling his seed under this report. As you know, these rules provide that the grower tag his seed before laking it from the farm, and that the tag show name and address of grower, class of seed as reported by the inspection committee or the authorized inspector for the Texas Experiment Association, and most important of all, the grower's guarantee of purity. This has been done in but very few cases. When this Association, and most important of all, the grower's guarantee of purity. This has been done in but very few cases. When this Seed Association, through their own inspection committee, made intelligent effort to see that their instructions were rigidly carried out. If for any reason the officers were in doubt or if there was any question about the purity of the seed, extra precaution was used by them to see that that particular crop of seed was not offered for sale as pure seed. Furthermore the Association does not accept seed of Class 4 or Class 5, which are the grades below that of pure seed. Seed Sold by the Association goes out under a warranty of purity, and each bag bears the name of the grower and the report of the inspection committee.

In determining the purity of the seed the very important factor to take into consideration is that of the responsibility of the seller. The vast majority of the fields personally inspected by myself were only passed in part, and some fields not passed as pure seed at all. However, I signed a certificate setting forth conditions as I found them. Thus by disregarding instructions there would be no difficulty in threshing the pure seed and that rejected together and selling it all as pure seed. Also it is possible, and I understand that a case or two is known to be true, to make an unfair use of my signature by making it to cover a great deal more seed than I originally gave it to cover. I know that my name has been used indiscriminately, and many times without warrant; but the Texas Experiment Stations are so largely responsible for the growing of Sudan Grass and the popularity of the same as a crop, that in my connection therewith I am greatly interested in the success of the Sudan Grass industry. For this and for the protection of the public I want to see the seed purity maintained; and I know that this can only be done through the persistent and painstaking carefulness on the part of all concerned. Very truly vours.

> VICTOR L. CORY, Superintendent Sub-Station No. 8

The LUBBOCK SUDAN GRASS SEED ASSOCIATION

Selling Agent for Lubbock County Experiment Association LUBBOCK, TEXAS

> Sole Wholesale Distributing Agents SUDAN GRASS PRODUCTS CO. American National Bank Building Ft. Worth, Texas

DESIGNED AND WRITTEN BY D'ARCY ADVERTISING CO., ST. LOUIS