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 * Information based on results of practical *
 * experiments in agriculture for press release *
 * and distribution to farmers. *

THE ESTABLISHMENT OF COMMON BAHIA GRASS FROM SEED

During the past few years a number of cattlemen in Florida and South Georgia have purchased and planted seed of common Bahia grass. Most of this seed has not been scarified. It has been broadcast usually in fair to poor seedbeds and no effort has been made to cover the seed. Although some good Bahia grass pastures have been established in this manner, several years are required and some failures have been experienced. Research on this problem at the Georgia Coastal Plain Experiment Station at Tifton indicates that if high-quality seed of Bahia grass is scarified and planted properly, it can be established from seed as readily as other grasses grown in this area. The following recommendations are based on these studies:

PLANT ONLY IN THE LOWER COASTAL PLAIN

Common Bahia grass comes from the West Indies and South America. In severe winters, plantings in the northern part of the Coastal Plain usually are completely killed by cold. Therefore, common Bahia grass is recommended only for the lower part of South Georgia. Reports indicate that it is also adapted to Florida and the lower portions of some of the Gulf States.

BUY GOOD SEED

No treatment or planting method will make poor seed grow. Since practically all common Bahia grass seed is imported, it is subject to test in accordance with the 1939 Federal Seed Act and should carry a tag indicating its purity and germination. Only 60 pounds of a 100-pound bag of Bahia grass seed having a purity of 70 per cent and a germination of 75 per cent could be expected to develop Bahia grass plants. Empty glumes that appear to be good seeds are responsible for the low purity of most Bahia grass seed.

Study the seed tag and insert the information on it in the following formula to determine the cost per pound of live seed:

$$\frac{\text{Price x 100}}{\text{Purity x germination}} = \text{cost of live seed}$$

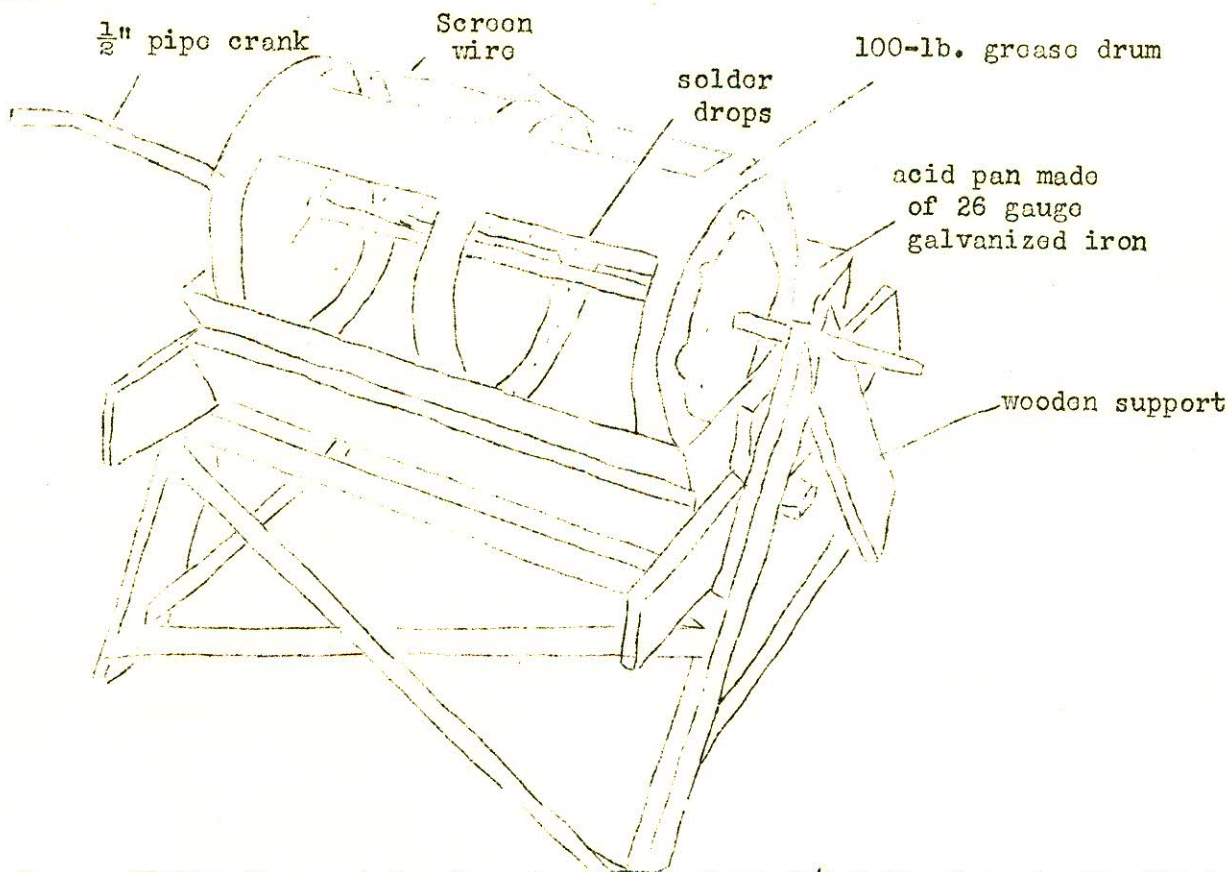
Example: $\frac{24¢ \times 100}{80 \times 75} = 40¢ \text{ per pound}$

SCARIFY THE SEED

Numerous greenhouse studies have demonstrated that live Bahia grass seed germinating less than 5 per cent in 3 months can be made to germinate over 50 per cent in 10 days when properly scarified with sulfuric acid. In field tests, scarified seed of common Bahia produced up to ten times as many plants per 100 seeds planted as the same seed not scarified.

An inexpensive machine that will greatly simplify the acid scarification of Bahia grass seed can be made from an empty 100-pound drum, a piece of 16 or 18 mesh galvanized screen wire, 5 feet of half-inch pipe, several square feet of 26 gauge galvanized iron for the acid pan, and a little lumber. After the drum is thoroughly cleaned, most of the sides are cut out and the screen wire attached to the inside with drops of solder. A piece of half-inch pipe is bent to form a handle and is inserted through the center of the drum to act as a support for the drum in the acid pan and to facilitate rotating it. If the drum and pan are washed carefully with water after using, they will last a long time.

CAUTION - Since sulfuric acid will destroy clothing it contacts and will cause flesh burns if not washed off at once with water, great care must be exercised in handling it. Plenty of water to remove spilled acid from clothes or flesh should always be available when working with sulfuric acid.



In scarifying the seed the drum is filled about 4/5 full of seed, the lid is attached, and the drum is placed in the support as indicated above. Crude sulfuric acid, used in the manufacture of superphosphate fertilizer (69 Be° , specific gravity 1.69) and available at fertilizer plants where superphosphate is ^{made} poured over the seeds and into the pan in sufficient quantity to wet all the seeds and fill the acid pan nearly full. Approximately 2 pounds of acid are required to treat 1 pound of seed. The drum should be rotated slowly until the outer hulls and most of the inner hulls covering the seed are eaten away, usually 30 to 45 minutes. Don't treat the seeds so long that the hulls are completely removed from portions of the seed, for such treatment will kill them.

