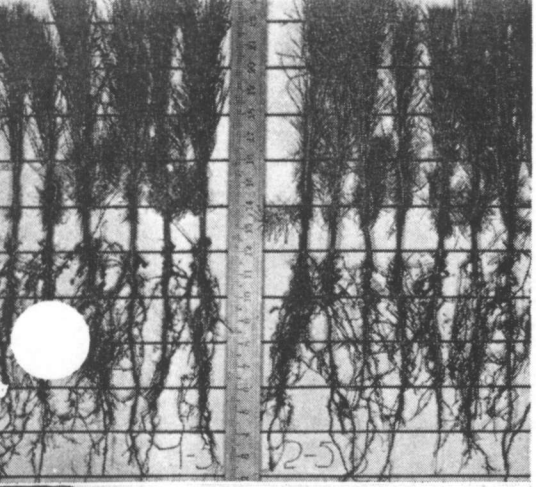
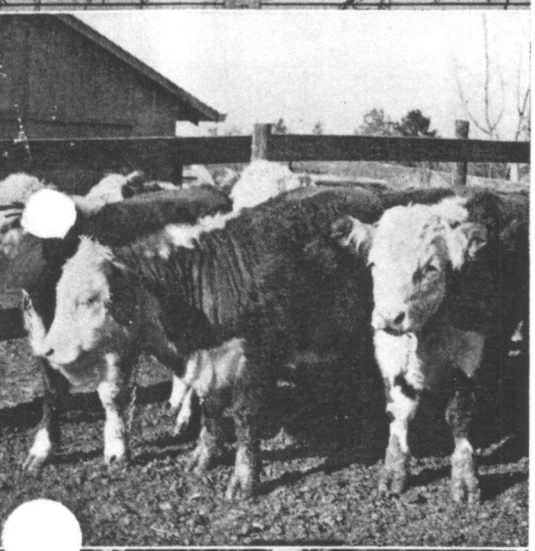
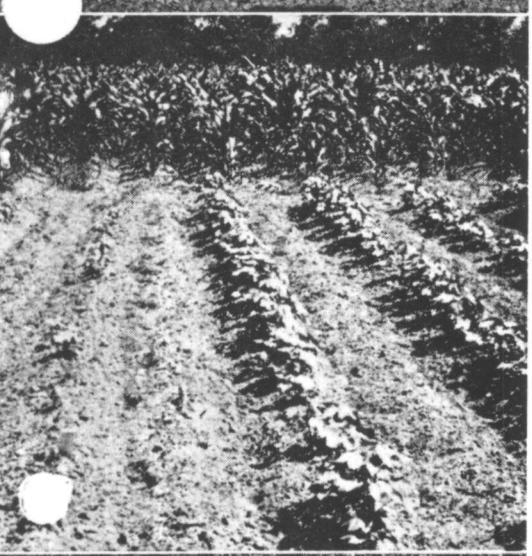






Mr Lowery

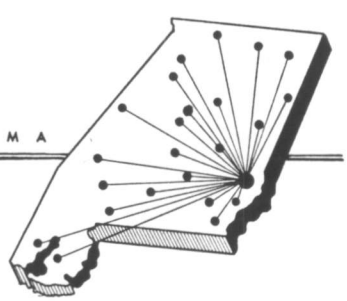
VOL. 4 NO. 1 SPRING 1957

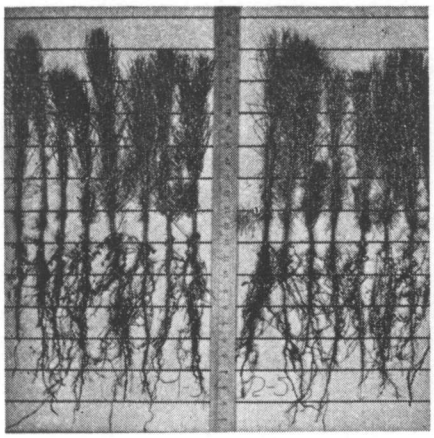
HIGHLIGHTS of AGRICULTURAL RESEARCH

In this issue—Soil and Quality Pine Seedlings . . . Progress Made in Control of European Corn Borer . . . Shoot for Heavier, Quality Calves Says Market Study . . . Managed Calf Crop Increases Beef Profits . . . Sulfur—Necessary for Plant Life . . . Wiley Sorgo—A New Variety for Quality Sirup Production . . . Chemical Control of Johnson and Bermudagrass Now A Fact

AGRICULTURAL EXPERIMENT STATION SYSTEM
of the ALABAMA POLYTECHNIC INSTITUTE

SERVING ALL of ALABAMA





Shown here is good quality, year-old loblolly planting stock. Note the good root systems and size of stems. The fibrous roots are about 10 in. long. The stem lengths vary from 8 to 12 in.

SOIL *and* QUALITY PINE SEEDLINGS

JACK T. MAY and
A. R. GILMORE
Department of Forestry

A LANDOWNER CAN BLAME one of three things if fewer than 70% of the pine seedlings he planted survive – low soil fertility in nursery, poor planting methods, or poor care of seedlings in shipping and handling.

Soil fertility is just as important as the other two factors. The nursery bed is the seedling's first home. It's in the nursery that the seedling is expected to get proper nourishment from soil for survival later on exposed, cut-over forest lands or eroded fields. Low fertility of nursery soil can reduce possible survival of the seedling.

Pine seedlings, in a way, are like cotton plants. Large cotton plants do not necessarily produce a bumper yield. Likewise, large pine seedlings do not always have the highest survival rate. It's the internal makeup of the seedling, gathered from nutrients of the soil, that is most important.

Appearance of seedlings helps determine which are suitable for planting. Suitable southern pine seedlings must have stem lengths of 6 to 12 in. Stems of seedlings are woody, or moderately stiff, and at least ⅛ in. in diameter. The plants have well developed fibrous root systems that are at least 6 in. long.

Soil and Seedlings

What are soil conditions that produce good quality planting stock, and how are they attained? Results of API Agricultural Experiment Station tests show that a favorable soil condition must be maintained in the nursery bed. This is necessary so that seedlings can be removed from soil without loss of or injury to small roots.

An application of 30 tons of sawdust per acre followed by a green manure crop every third year resulted in a good soil condition. In turn, high quality seedlings were produced.

A favorable tilth also was maintained when 15 tons of sawdust per acre were applied annually prior to seedbed preparation. This practice was followed when seedlings were produced on the same area year after year.

Fertility Maintained

At the Auburn Nursery, applications of nitrogen, phosphorus, and potassium helped maintain highly fertile seedbeds. When seedlings were grown on seedbeds every year, heavy applications of the fertilizers were applied with the 15 tons of sawdust before planting. Good quality loblolly pine seedlings were produced on seedbeds that received 300 lb. of P_2O_5 and 160 lb. of K_2O per acre. One hundred lb. of N was applied before planting. During the growing season, an additional 200 to 300 lb. of N were applied. Rates of N application varied according to climatic conditions, rate of break-down of organic matter, and growth rate of plants.

When the third year legume-sawdust rotation was used at the Auburn Nursery, nitrogen, phosphorus, and potassium were applied as needed in small amounts. Fertilizer was applied according to needs based on soil tests. Soil samples were collected at the beginning of each planting season. The samples were examined in the Station's forestry soil testing laboratory. When nutrient contents were determined, recommendations for fertilizer were made.

Seedling Survival

Seedlings produced in seedbeds of high fertility survive exceptionally well in spite of adverse conditions. Loblolly pine seedlings were planted on an eroded Cecil sandy clay soil in Lee County and on a deep Norfolk sand in Autauga County. Rainfall in Lee County was 28.44 in., or 46.2% below normal, in 1954. In 1955 rainfall in Lee was 49.75 in. or 5.8% below normal. Survival percentages for plantations at the two areas are given in the table.

Planting

Though inherited characteristics help determine survival and growth of seedlings, tree planters must remember that even the best of stock can be injured or killed by abuse. Poor handling and planting invariably result in failure.

When the landowner receives his young trees, he should immediately examine them. Seedlings with green tops (without slight yellowing) and wet roots may be assumed to be in good condition.

If the trees are to be kept for only a day or two before planting, the bundles can be loosened slightly, sprinkled with water, and left in a wet place, To be kept longer, the trees are removed from the bundles and heeled into the ground at a well-drained, shady place. The ground must be kept moist.

When carried to the field for planting, the seedlings are kept in a bucket of wet muck, mud, or moss. In planting, tree roots must not be doubled or bent. The seedling is placed about a quarter of an in. deeper than it was in the nursery. Care must be taken to pack the soil firmly around the roots.

Many plantings fail because they are delayed until late winter or early spring. Seedlings must be planted as early as possible after the winter rains begin. This allows time for them to develop enough to withstand dry weather that often follows during spring and summer.

FIRST YEAR SURVIVAL OF LOBLOLLY SEEDLINGS PLANTED ON DIFFERENT SITES

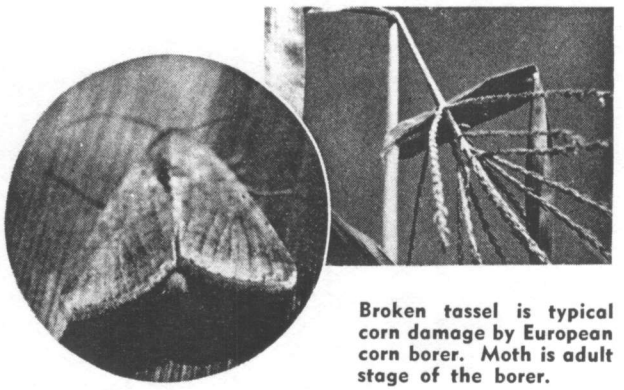
Planting site	Planting date	Survival
Cecil sandy clay, Lee Co. (Piedmont)	Fall, 1953	77
	Fall, 1954	93
	Fall, 1955	90
Norfolk sand, Autauga Co. (Upper Coastal)	Fall, 1954	94
	Fall, 1955	81

PROGRESS MADE

in control of

European corn borer

W. G. EDEN, *Entomologist*



Broken tassel is typical corn damage by European corn borer. Moth is adult stage of the borer.

SOUTHWARD AND WESTWARD, ever nearer green fields in Alabama!

Such has been the march of the European corn borer that entered this country near Boston, Mass., in 1917.

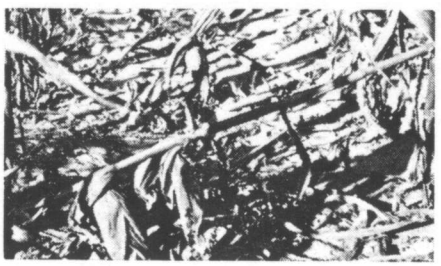
The borer, which hitch-hiked on broom corn from central and southern Europe, was first discovered in Alabama in 1950. Four years later the insect became an economic pest when it damaged pimento pepper pods on Sand Mountain. Last year the borer was known to be in 15 northern Alabama counties: Lauderdale, Lawrence, Limestone, Madison, Marshall, Morgan, Winston, Blount, Cherokee, Colbert, Cullman, DeKalb, Etowah, Franklin, and Jackson. The insect has also been found in Georgia and Mississippi.

The borer has been known to feed on more than 200 kinds of plants, including cotton. To date, the most important damage in Alabama has been to corn, grain sorghum, and pimento peppers. Corn is the preferred host plant. Damage to corn was reported as extensive last year.

SUMMARY OF LIFE HISTORY OF EUROPEAN CORN BORER IN 1956 AT SAND MOUNTAIN

Generation, stage	Appearance	Host crop
Borer wintered		
as larva	----------	corn, sorghum
pupa	May 1	corn, sorghum
adult	May 8	corn
First generation		
egg	May 20	corn
larva	May 27	corn
pupa	June 28	corn
adult	July 6	corn
Second generation		
egg	July 10	corn
larva	July 15	corn
pupa	Aug. 7	corn
adult	Aug. 14	sorghum, pimento
Third generation		
egg	Aug. 16	sorghum, pimento
larva	Aug. 20	sorghum, pimento

The European corn borer has four stages of life: egg, larva (worm or borer), pupa (resting stage), and adult (moth). The borer passes the winter as a full-grown, brownish or pinkish larva in a corn stalk or occasionally in other plant debris. Life stages of the pest at the Sand Mountain Substation near Crossville are summarized in the table. The borer completed 3 generations in 1956. The first two were mostly in corn, the third was on grain sorghum and pimento peppers.



This lodged corn shows effect of heavy infestation of European corn borer.

Control Studies

Research studies are under way by the API Agricultural Experiment Station on control methods. Included in the investigations are three tests in early stages, on which conclusive data are not available. These include studies of resistance among varieties of corn, grain sorghum, and pimento peppers; planting dates that may reduce damage to corn; and the planting of trap corn crops near pimentos to prevent damage.

Research has revealed that the corn borer population can be reduced by destroying overwintering borers. The Experiment Station recommends plowing under debris at least 6 in. deep in the fall or early spring before moths emerge. Using a shredder-type stalk cutter or disking the land before plowing kills many borers and helps assure a clean plowing job. Plowing by mid-April last year reduced the number of overwintering borers.

Natural parasites are another aid in reducing corn borer populations. More than 11,000 specimens of four species of corn borer parasites were released at the Sand Mountain Substation in 1956. Follow-up studies revealed that these parasites killed as high as 25% of the first-generation borers in fields where they were released.

Several insecticides have shown promise in experiments on borer control. However, until further research is completed, DDT is the only insecticide recommended. It is pointed out that insecticides are valuable in reducing borer populations, but they must be supplemented by other measures for best control.

Recommended Treatments

Based on results of research in Alabama and the Corn Belt, the following treatments are recommended:

(1) On corn, DDT is applied at the rate of 1½ lb. per acre as a spray or in granular form, and 2 lb. per acre as a dust. For grain sorghum, ½ lb. more DDT per acre is used.

(2) On pimento peppers, 2 lb. of DDT per acre is used either in dust or spray form. The best protection is obtained by keeping a coating on the plants during the borers' egg-laying and hatching periods. When the first eggs are seen, the plants are sprayed or dusted at 5-day intervals for 3 weeks or longer.

(3) As a spray, the DDT is applied in not less than 20 gal. of water per acre.

Station studies revealed no danger of DDT contamination in canned pimento peppers regardless of amount of DDT on pods at harvest.

Shoot for HEAVIER, QUALITY CALVES *says market study*

M. J. DANNER, *Associate Agricultural Economist*

ALABAMA CATTLEMEN can increase returns from beef cattle production at present market prices!

This can be accomplished by improving quality of cattle and carrying calves to heavier weights, according to an API Agricultural Experiment Station survey. During the 1953-55 period, this Station studied grade-price relationships at selected Alabama livestock auctions. About 14,000 head of cattle were graded according to federal standards and price information was obtained. Since the period studied was one of remarkably stable cattle prices, dependable seasonal comparisons were possible.

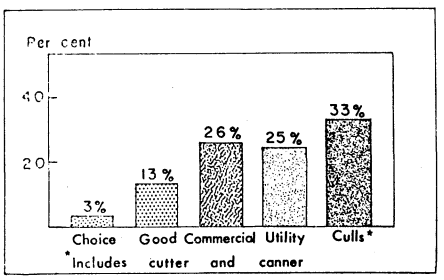


Fig. 1. Percentage of slaughter cattle sold by grade at selected Alabama livestock auction markets, 1953-55.

Quality of Cattle Marketed

More than half of the cattle and calves graded were Commercial[1] and Utility grades, Figure 1. About a third was in the Cull, Cutter, and Canner grades, none of which is usually sold as block beef. If slaughter cows are excluded, this proportion would be reduced to about a fifth since more than three-fourths of the cows were Cutter and Canner grades. About a sixth of the cattle sold at the auctions studied graded Good or better. A larger proportion of the cattle graded higher in the spring, whereas a larger percentage of the steers graded higher in the fall.

The largest class of cattle sold was slaughter calves weighing from 250 to 450 lb. They accounted for 29% of receipts. Steers and heifers made up 42% of total receipts. Veal calves were sold in large numbers only in northern Alabama.

Weight Affects Prices

More cattle were marketed in the fall than during other seasons. This was due primarily to the large number of lightweight calves that came to market at that time. During most of the 2-year period studied, lightweight calves accounted for about a sixth of the total cattle receipts. During September and October, however, they made up almost 40% of total receipts, Figure 2. The effect on price from this seasonal pattern was striking. Other cattle did not show nearly as strong a pattern as did lightweight calves.

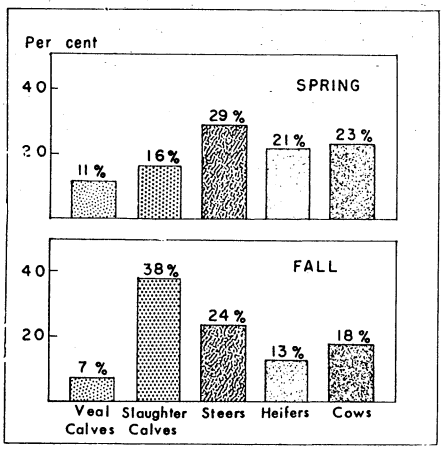


Fig. 2. Percentage of slaughter cattle sold by class at selected Alabama livestock auction markets, fall and spring seasons, 1953-55.

Price differentials for slaughter calves and steers are shown in Figure 3. Prices of Choice calves and steers were, respectively, about 55% and 62% higher than Utility animals. Price differences between the various grades were from $2 to $3 per 100 lb. An exception was the difference between Choice and Good calves and steers in the fall when this range was much less. Relative scarcity of Choice animals in the fall was associated with this difference.

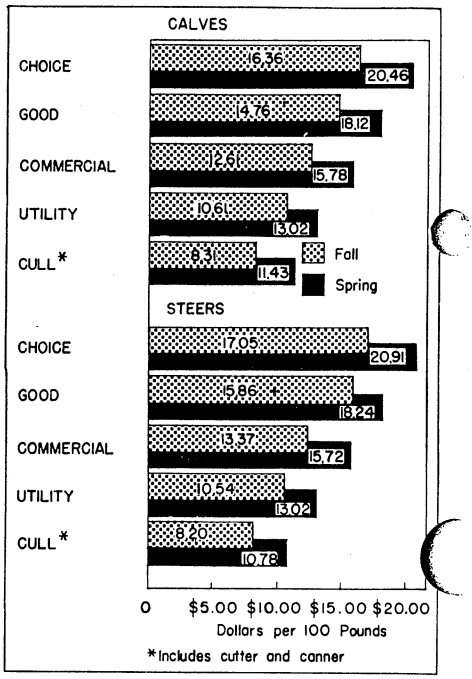


Fig. 3. Prices by grade of slaughter calves and steers sold at selected Alabama livestock auction markets, fall and spring seasons, 1953-55.

Seasonal Prices

Spring prices greatly exceeded fall prices for all classes. This difference was about $3 per 100 lb. for calves and about $2.50 for steers. Previously, it was noted that receipts were about 50% greater in the fall primarily because of large numbers of cattle. Apparently heavy receipts of lightweight calves in the fall had the effect of lowering prices on all classes. The impact on slaughter calf prices was severe. Compared with steers, slaughter cattle of the same grade sold during the fall up to $1 per 100 lb. less.

Slaughter steers of predominantly beef breeding sold for about $1 per 100 lb. more than the same grade steers of mixed or dairy breeding. Steers sold for more than heifers of the same grade by about $1 per 100 lb.

[1] Effective June 1, 1956, the Commercial grade was divided into two new grades, Standard and Commercial.

Managed calf crop INCREASES BEEF PROFITS

W. B. ANTHONY, *Animal Nutritionist*
W. M. WARREN, *Associate Animal Breeder*

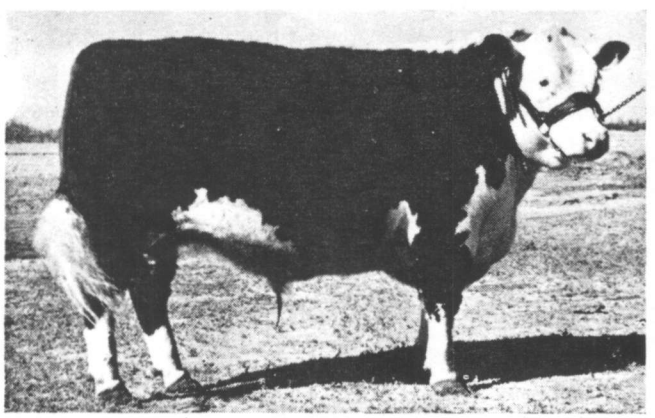
Good quality calves such as these offer cattlemen a choice of markets, since they are in demand by packer and feeder.

THE TWO-WAY CALF can increase profits for Alabama cattlemen!

A beef calf with good breeding is a two-way calf because the cattleman has a choice of ways to market him. This makes it possible to use feed and facilities to best advantage.

Well-bred calves that are fat at weaning time bring good prices for slaughter. Good calves that are not fat are in strong demand by feeder buyers. If adequate feed is available, another choice for the cattleman is to carry the calf to heavier weight and finish him on the farm.

The cattleman who plans to sell to the feeder buyer castrates and dehorns the animal during its first 5 days of life. The alert producer will never fail to do this. He knows that if he fails he will lower the sale value of the animal by 2¢ or 3¢ per lb.



This finished slaughter steer produces the kind of meat that consumers demand. Production of such high-quality cattle can mean added profits for Alabama cattlemen. To profitably grow slaughter cattle past weaning, calves with good beef breeding and an abundance of home-grown feed are essential.

To produce a fat calf that will sell for high prices for slaughter, the dam must produce adequate milk. This requires well-bred cows and a good pasture program. An abundance of milk is necessary for the calf to be fat at weaning time.

Quality of feed is important if the cattleman chooses to feed out the calf to heavier weight and finish. The calf has a high requirement for protein. If feed is coarse or fibrous, the animal lacks the capacity to consume enough nourishing feed for satisfactory growth.

Research Results

Results of studies at the Tennessee Valley, Piedmont, and Wiregrass substations revealed the economy of several rations for wintering calves that are to be grazed the following summer. A full feed of good hay or silage plus 1½ lb. of cottonseed or soybean meal and 2 lb. of ground ear corn was found to be an excellent ration.

Yearling calves will grow but not fatten on most summer grasses. Yearling steers at the Wiregrass Substation graded Utility at the end of the grazing seasons of 1953, 1954, 1955, and 1956. The steers had been on Coastal Bermudagrass, Bahiagrass, or common Bermudagrass.

The animals were placed in feed lots each year following summer grazing. After 115 to 135 days on full feed each year, they graded predominately Choice and high Good.

During 1954, 1955, and 1956 at the Wiregrass Substation, 297 head of steers were fed several fattening rations in the feed lot. The highest average rate of gain was produced by a ration containing 51 parts of ground snapped corn, 8 parts of cottonseed meal (41% protein), 10 parts of blackstrap cane molasses, 30 parts of ground peanut hay, and 1 part of salt. The daily gain on this ration was improved by adding stilbestrol (10 mg. per head daily). Only slightly below this ration in rate of gain was a similar ration. In this, cottonseed meal was replaced by ground cottonseed to furnish an equal amount of protein (14.4% of cottonseed in the ration).

Better Market Returns

It was more profitable at the Wiregrass Substation to finish yearling steers to Choice and Good grades in the feed lot than to market them as Commercial and Utility grades direct from grass. The average increase in market value, 1954 to 1956, from feeding in the lot was $23.44 per steer after paying the cost of feed.

Winter grazing on oats did not fatten calves at the Tennessee Valley Substation. Lightweight stocker calves were grazed on oats from November until the end of May. The calves were finished out to Good and Choice slaughter grades after 115 days on full feed in dry lot. The cattle gained 295 lb. per head on oat grazing and 258 lb. per head in dry lot. The cost of all feed and grazing totaled $72.59 per animal. The cattle sold for an average of $209.09 per head. Net return was $50.76 per head after deducting feed costs and price paid for the calves.

To profitably grow slaughter cattle past weaning, it is essential that the herd be of good beef breeding and that an abundance of farm-produced feeds is available. A balanced ration is necessary to ensure efficient use of feed.

Reports of the USDA Market News Service show that more and more producers are carrying animals after weaning age and growing them out to heavier weight. This is an excellent way to increase profits provided adequate supplies of farm-produced feeding stuffs are available.

SULFUR *is a necessary* ELEMENT *for* PLANT LIFE

Given little attention as a plant food

L. E. ENSMINGER, *Soil Chemist*

To live and grow, plants must have sulfur! Yet little attention has been given sulfur as a plant nutrient despite increasing emphasis on proper crop fertilization.

In Alabama, there is a trend toward use of higher analysis fertilizers that may contain less sulfur. A shortage of this essential element can lead to decreased crop yields. Sulfur is a part of plant proteins. Not enough of this element will cause plants to be pale green or yellow.

Little attention has been given sulfur in the past because it was applied to soils in fertilizers, insecticides, fungicides, and manure. These sources supply enough sulfur in most cases. For instance, superphosphate is almost half calcium sulfate. And, superphosphate is the main source of phosphorus in most mixed fertilizers sold in Alabama. In the vicinity of industrial areas, considerable sulfur may be brought down in rains.

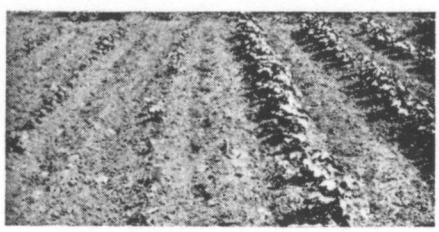
If sulfur shortages occur, recommendations for applications of this essential element to the soil, based on tests, will have to be made.

Studies Conducted

Sulfur field studies have been conducted by the API Agricultural Experiment Station since 1939. The response of cotton and other crops to applied sulfate was learned. More recently, the sulfur status of Alabama soils has been studied.

Research results show that sulfate is retained or adsorbed to a certain extent by most soils. Subsurface layers usually contain more sulfate and are capable of adsorbing more sulfate than surface layers. Coarse-textured surface layers usually do not contain soluble sulfate, nor do they show a capacity to adsorb sulfate. Sulfur present in subsurface layers probably is built-up from rainwater and other surface applications. The element was leached into and held by the subsoil.

Test results show that deep-rooted crops such as alfalfa and sericea can obtain enough sulfate from that stored in the subsoil. However, cotton, a more shallow-rooted crop, often responds to applied sulfate.



Response of cotton to sulfate in early growth stages on Kalmia fine sandy loam near Brewton. Plot at left received sulfur-free fertilizer, whereas one at right received similar fertilizer containing sulfate.

Increase in Yield

From 1939 to 1943, tests were conducted at 420 locations to measure response of cotton to sulfate. Gypsum (calcium sulfate) was used as the source of sulfate. In this experiment, gypsum increased yields of seed cotton an average of 80 lb. per acre at the 420 locations.

More recently an experiment was conducted at 12 locations to learn the value of sulfur in high-analysis fertilizers. Yields for the various locations are given by soil types in the table. Average productions show that the fertilizer containing sulfate produced 161 lb. more seed cotton per acre than a similar fertilizer without sulfate. The test was conducted for periods of 1 to 4 years at each location.

All complete fertilizers sold in Alabama probably contain enough sulfate to supply sulfur needs of cotton when used at recommended rates. However, if sulfur-free fertilizers are used, they should be supplemented with a cheap source of sulfate-sulfur such as gypsum. Continued use of fertilizers containing little or no sulfur will likely result in decreased yields of cotton, and perhaps other crops.

Effect of Sulfate in High-Analysis Fertilizers on Yield of Cotton, 12 Locations

Experiment sites		Per-acre yield of seed cotton		Yield increase per acre due to sulfate
Soil type[1]	County[2]	Sulfate-free fertilizer	Similar fertilizer containing sulfate	
		Pounds	*Pounds*	*Pounds*
Decatur c.l.	(3) Calhoun	1,367	1,597	230
Decatur c.l.	(1) Calhoun	1,020	1,163	143
Stough v.f.s.l.	(2) Pickens	935	1,080	145
Kalmia l.s.	(4) Autauga	993	1,149	156
Kalmia f.s.l.	(3) Escambia	671	833	162
Kalmia f.s.l.	(4) Escambia	1,024	1,239	215
Greenville f.s.l.	(3) Autauga	1,510	1,567	57
Magnolia f.s.l.	(3) Monroe	1,230	1,374	144
Magnolia f.s.l.	(4) Monroe	645	902	257
Boswell v.f.s.l.	(2) Macon	797	870	73
Boswell v.f.s.l.	(1) Macon	554	722	168
Norfolk l.s.	(1) Macon	1,008	972	–36
Weighted averages		1,001	1,162	161

[1] Key to abbreviations: c.l.=clay loam; v.f.s.l.=very fine sandy loam; l.s.=loamy sand; f.s.l.=fine sandy loam.

[2] Figures in parentheses indicate number of years experiment conducted at each location.

WILEY SORGO—

a new variety for quality sirup production

W. R. LANGFORD
Associate Agronomist

LIKE HOT CAKES? Well, there's something new in high quality sirup to pour ver them.

An improved variety of sweet sorghum named Wiley will be released this year to Alabama farmers for sirup production. The sorghum has produced high yields of excellent sirup in tests.

Wiley was developed by the USDA Sugar Crops Field Station near Meridian, Miss. It was tested alongside other well known varieties at the Sand Mountain (Crossville) and Piedmont (Camp Hill) substations and at the Brewton xperiment Field. Tests were conducted in cooperation with the USDA.

The new variety matures 6 to 10 days earlier than Sart. It is tall, growing from 12 to 16 ft. high under favorable conditions. Stalks of this variety are smaller in diameter than those of Sart. They have thin, hard rinds that are almost free of waxy bloom that occurs on Sart, Tracy, and other sorgos in commercial production. Wiley stalks have a bright green appearance in contrast to the duller color of other sorgo varieties. Individual Wiley plants do not sucker as much as those of Sart. However, Wiley plants sucker enough to make up for small skips in rows. Wiley is juicier than Sart. Its juice has a high sugar content. Leaves and seed heads represent only about 15% of the total weight of Wiley plants, as compared with 30% for Sart and Tracy.

TABLE 1. YIELD OF SORGO VARIETIES AT 3 LOCATIONS, 4-YEAR PERIOD, 1953-56

	Sart	Tracy	Wiley
Tons of stripped and topped stalks per acre			
Crossville (4 yr.)	12.4	12.3	12.9
Camp Hill (2 yr.)	10.0	7.3	10.3
Brewton (2 yr.)	11.0	6.1	11.5
Average (8 tests)	11.4	9.5	11.9
Percentage of plants lodged			
Crossville (4 yr.)	.5	7.0	5.6
Camp Hill (2 yr.)	50.0	7.0	50.0
Brewton (2 yr.)	.1	.1	.9
Average (8 tests)	12.8	5.2	15.5

Resistance Qualities

Disease resistance of Wiley is greater than that of any other commercial sorgo variety. It is immune to red rot and anthracnose. In comparative gradings of leaf diseases made on sorghum varieties during the past 3 years, Wiley was consistently more disease resistant.

Wiley seed are small and light golden to reddish brown. Seedheads are medium in length and semi to irregularly compact.

Data on Wiley were collected from tests at Sand Mountain Substation from 1953 through 1956 and at the Brewton Experiment Field and Piedmont Substation during the past 2 years. Drought conditions delayed planting in some cases and were unfavorable for maximum development of sorgo in some tests. Performance of the 3 leading varieties is summarized in Tables 1 and 2.

Wiley produced about the same amount of sirup as Tracy and slightly more than Sart in 4 tests (Table 2). Wiley averaged 252 gal. of sirup per acre. Tracy and Sart made 256 and 223 gal. per acre, respectively. Stalk production of Sart, Tracy, and Wiley in the 4 tests averaged almost the same. In 4 additional tests, yield of stripped and topped stalks made by Tracy averaged only two-thirds that of Wiley. Juice from Tracy in the additional tests would not boil to the correct density for sirup. Likewise, Sart averaged only two-thirds the tonnage of stalks as that made by Wiley in 2 tests. In these 2 Sart juice would not cook to sirup.

TABLE 2. SIRUP PRODUCTION OF 3 LEADING VARIETIES OF SORGO, 1953-56 PERIOD

Location	Yields of sirup per acre		
	Sart	Tracy	Wiley
	Gal.	*Gal.*	*Gal.*
Crossville			
1953	248	288	204
1954	155	248	209
1955	214	316	363
1956	354	----*	260
Camp Hill			
1955	----*	----*	167
1956	275	173	232
Brewton			
1955	----*	----*	288
1956	286	----*	265

* Failed to boil to correct density for sirup.

Wiley was the only one of the 3 varieties that produced an acceptable quality of sirup under all conditions tested. Its juice was easier to clarify than that of Sart or Tracy.

Wind Damage

The new sorghum did not withstand wind as well as Sart and Tracy. Lodging was at a minimum in most tests partly because of limited growth. However, all Sart and Wiley plants growing in test plots at Camp Hill were broken off or blown over by hurricane winds in September, 1956. Lodging of Wiley was usually the result of wind breaking plants just above the nodes when internodes were growing rapidly.

Wiley proved itself to be adapted to growing conditions in Alabama. Its maturity date was not greatly affected by these conditions. In contrast to the performance of Sart, Wiley was not extremely sensitive to date of planting. This is in direct contrast to the performance of Sart, which under some conditions reacted like an early variety. If Wiley is planted any time from mid-April to late May, high yields of good quality sirup can be expected.

A limited quantity of foundation seed of Wiley was grown at the API Foundation Seed Stocks Farm at Thorsby last year. Growers can apply for Wiley seed through the Alabama Crop Improvement Association, Auburn.