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TEXAS



FARM OPPORTUNITIES





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Foreword



IN OFFERING this booklet, TEXAS FARM OPPORTUNITIES, the Agricultural section of the United States Railroad Administration does so with the idea that it will be a source of reliable information for the home-seeker.

It is compiled by practical and scientific agriculturists and has the endorsement of prominent and progressive citizens of the state.

The vastness of Texas and rapid development of its agricultural resources; the differences of soil, climate, rainfall, topography, and the need for up-to-date literature make this publication timely.



TEXAS FARM OPPORTUNITIES

Governor's Office,
Austin, Texas, January 22d, 1919.

Texas Railway Agricultural Committee,
Dallas, Texas.

Gentlemen:

The publication by the Railroad Agricultural Committee of a booklet for Texas, advertising the advantages and opportunities of this State, has my hearty endorsement and approval.

I feel that this is a worth-while undertaking and should result in the enlightenment of outside persons interested in the various industries of the respective States.

Not only that, but coming with the reconstruction of our nation from a war to a peace basis, it could be made a medium to aid our returning heroes in determining upon a future home and occupation.

Cordially yours,
(Signed) W. P. HOBBY,
Governor of Texas.

Department of Agriculture,
State of Texas,

Austin, 1/22/19.

The Texas Railway Agricultural Committee,
Dallas, Texas.

Gentlemen:

We have been advised by your chairman that your committee anticipated the compilation, printing and distribution of a folder in which would be set forth the agricultural advantages and opportunities afforded by the various sections of Texas.

As Commissioner of Agriculture, I wish to give my endorsement to such a worthy undertaking by your association.

Texas has in it, vast areas of undeveloped agricultural land; it also has larger areas in which increased production could be had if the number engaged in agriculture could be increased by inducing successful farmers from other portions of the United States to settle in Texas. Especially would I consider such publication timely just now, in view of the fact that so many of our noble boys who have been wearing the khaki will soon return to their native country, and will no doubt enter into productive lines with as much determination as they have so well demonstrated in their successful drive against German autocracy. Their victories in war will make the world better for all its people. Their victory to be gained on behalf of humanity in productive lines will be equally as far reaching in its field of service.

Yours respectfully,
(Signed) FRED W. DAVIS,
Commissioner of Agriculture.

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Co-operative Extension Work
in
Agriculture and Home Economics,
State of Texas.

College Station, January 31, 1919.

Texas Railway Agricultural Committee,
Dallas, Texas.

Gentlemen:

I heartily endorse your plans to place before the people of other States the agricultural possibilities of Texas, as our undeveloped agricultural lands are sufficient to accommodate a large additional number of successful farmers. Texas lands are cheap as compared with lands in other sections when their producing capacities are considered, so a booklet setting forth facts with reference to these possibilities should be of service to the prospective home-seeker in giving him information as to our undeveloped resources.

Yours very truly,
(Signed) T. O. WALTON,
Acting Director.

NOV 26 1919

TEXAS FARM OPPORTUNITIES

:: Introductory ::

TEXAS

Texas is so large that it may properly be called the Empire State; not only as to domain, with its two hundred and sixty-five thousand seven hundred squares miles, but because it involves a wide variation in elevation, temperature, rainfall and soil, and therefore has a wide adaptability to crops. It is the Empire State in its ability to supply its inhabitants with the common necessities of life, both as to riament and food.

Texas contains 252 counties. It has a coast line of approximately 400 miles. The area of Texas is 8.7 per cent of the total area of the United States.

Texas is 765 miles from east to west and 805 miles from north to south.

Texas has made unbounded progress in the building of good roads in the past decade. The State Highway Department of Texas is perhaps the equal of any highway and registration department in the United States.

Texas has approximately 20,000 miles of good roads over which agricultural products may be hauled at any time of the year. Texas has many thousand miles of proposed highways which will be constructed as rapidly as possible.

Texas is crossed and recrossed by a network of railroads reaching all the larger markets.

Texas is the newest oil center of the United States. Geologists say that a large oil pool underlies a great part of Texas, which has in part been proven.

VARIETY OF CLIMATES.

Texas has broad, level prairies; high, elevated plateaus, 3,000 to 5,000 feet above sea level, and fertile valleys. The average elevation of Texas is 850 feet. The soil varies in richness and fertility from black waxy, black sandy, gray sandy, red sandy, sandy loam to alluvial soils.

Texas has a variety of climates. A great portion is swept by the Gulf breezes, making the long summers endurable and enjoyable. The winters usually are mild and delightful. The crop season of Northern Texas averages eight months and of South Texas ten months a year.

Rainfall differs in sections to the same extent as climates. Extreme West Texas averages from 10 to 15 inches rainfall, and East Texas 35 to 50 inches a year.

TEXAS WANTS FARMERS.

Texas wants farmers, energetic and intelligent farmers, to come and farm her fertile acres.

Texas is the only State in the Union with room enough for a population great enough to consume its total production of food, fabrics and building materials; the only area in the world in which the native resources of fuel, iron, water, stone and lumber are sufficient to enable its maximum population to exist and flourish without drawing upon the products of any outside State or Nation.

Texas is at the threshold of its greatest prosperity. The development made in the past decade is but a token of that to come.

GRAIN, COTTON, WOOL.

Wheat, corn, oats, barley, milo, kafir, feterita, known as grain sorghums; and the saccharine sorghums for silage, are the chief grain and forage crops of Texas. Sugar,

TEXAS FARM OPPORTUNITIES

from sugar cane, is now produced in the State, and the production of this crop is capable of still further expansion. The various vegetables and fruits capable of growing in a north temperate climate or in a subtropical zone are produced extensively in the State.

Cotton, wool and mohair are important industries and to a less extent fibers capable of being manufactured into clothing. Silk is also produced. The average annual value of Texas farm crops for the last nine years, ending 1918, was \$500,800,000.

From the sea level there is a gradual elevation for 100 miles inland, known as the Coastal Plain. Then there occurs a succession of hills, plateaus and prairies, until an elevation of more than four thousand feet is attained in the Panhandle, while in the Western part of the State several mountain ranges occur, with individual peaks, reaching from 3,000 to 9,600 feet in height.

The country west of the 98th meridian is given largely to grazing and live stock industry; sheep, goats, cattle and horses. Land in this region is also cultivated by irrigation. Productive lands are located in the Panhandle and South Plains country. The country east of the 98th meridian in general terms is a safe agricultural country.

SWINE PRODUCTION IN TEXAS.

Texas will be continually in need of more and better hogs. At the present time there is a shortage in the State amounting to nearly twenty-five per cent. **The eastern one-half of the State is as well suited for the production of pork as any section in the United States. Feed crops can be easily grown, and no more profitable method of marketing the surplus crops can be had than marketing them in the form of hogs.** Increased pork production is not only a patriotic duty, but at the same time one can secure larger returns on the sale of farm products and increase the productive value of the farm and soil. Improved hogs and good farming go hand in hand. An ideal system of farming is not complete without a proper system of pork production.

Hogs are the most prolific of all domestic animals, producing, when properly cared for, a thousand per cent per annum on the number of breeding sows in the herd. This means quick financial returns, since hogs make rapid gains, and with the improved breeds they can be marketed at from seven to eight months of age. In this respect hogs have a decided advantage over all other classes of live stock, because money invested in hogs soon begins to bring in large returns. They not only increase soil fertility and convert waste into profit, but wherever farmers have large bank deposits there also are found modern systems of pork production. There is no type of farming to which swine production cannot be adapted. Hogs are easiest to produce and handle of all meat animals, and will make the most rapid progress toward solving the world meat problem.

To make a success of swine production one should consult freely with the experiment stations, agricultural colleges and railroad agricultural agent in the State and in feeding one must give attention to the proper preparation of rations and growing of grazing crops, and especially to the feed supply. In problems of management one should consider the herd boar, the sows, the pigs and feeding swine. When it comes to breeding there are many things to consider. There is no one best breed, but one should use the lard type breed found in the community, and above all should always use pure-bred boars.

Owing to the climate swine and other live stock are usually freer from disease in Texas than in other sections. Improved methods of control by the use of serum and virus have eliminated all dangers of losses from hog cholera. Tuberculosis, a very destructive disease in many States, is practically unknown among the swine herds in Texas.

The facilities offered for hog raising in Texas are equal to those of any section of the Corn Belt. The prices are equally as high, and the marketing system is perfected to a high degree. Good hogs always bring good prices. It is only profitable to market hogs at an early age. It does not pay to overfeed before loading. The hogs should be comfortable in transit, and cruelty in handling should be avoided; cars should not be overloaded, and hogs should be consigned to a commission firm.

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Northwest Texas. Average elevation above sea level. Rainfall from 18 to 24 inches. Elevation from 2,000 to 3,500 feet.

Edwards Plateau. Rainfall from 18 to 24 inches. South Texas has 18 to 24 inches.

Central Texas. Rainfall 20 to 35 inches. Elevation from 800 feet.

South Texas. Rainfall 35 to 45 inches. Elevation from 800 to 1,500 feet.

Coastal Texas. Rainfall averages 30 to 45 inches. Elevation from 800 to 1,500 feet.

Milk Cows—Texas is fifth in the number of milk cows and has the largest Jersey dairy herd in the world. Texas has price-winning Jerseys and Holsteins. In 1918 Texas had 1,128,000 head of milk cows valued at \$64,800,000.

Texas leads in the number of range cattle by having almost twice as many as any other State.

In 1917 Texas had 5,482,000 head of cattle other than milk cows, valued at \$178,713,000.

In 1918 this number was reduced to 4,660,000 head, valued at \$160,304,000—decrease due largely to the heavy demands of the Government.

Texas is the leading State in the United States in value of agricultural crops with a total of \$711,457,638.

Texas produced 18,000,000 bushels of peanuts on 650,000 acres in 1918, worth \$18,000,000.

There are 210,000 Angora goats on the Edwards Plateau, Southwest Texas.

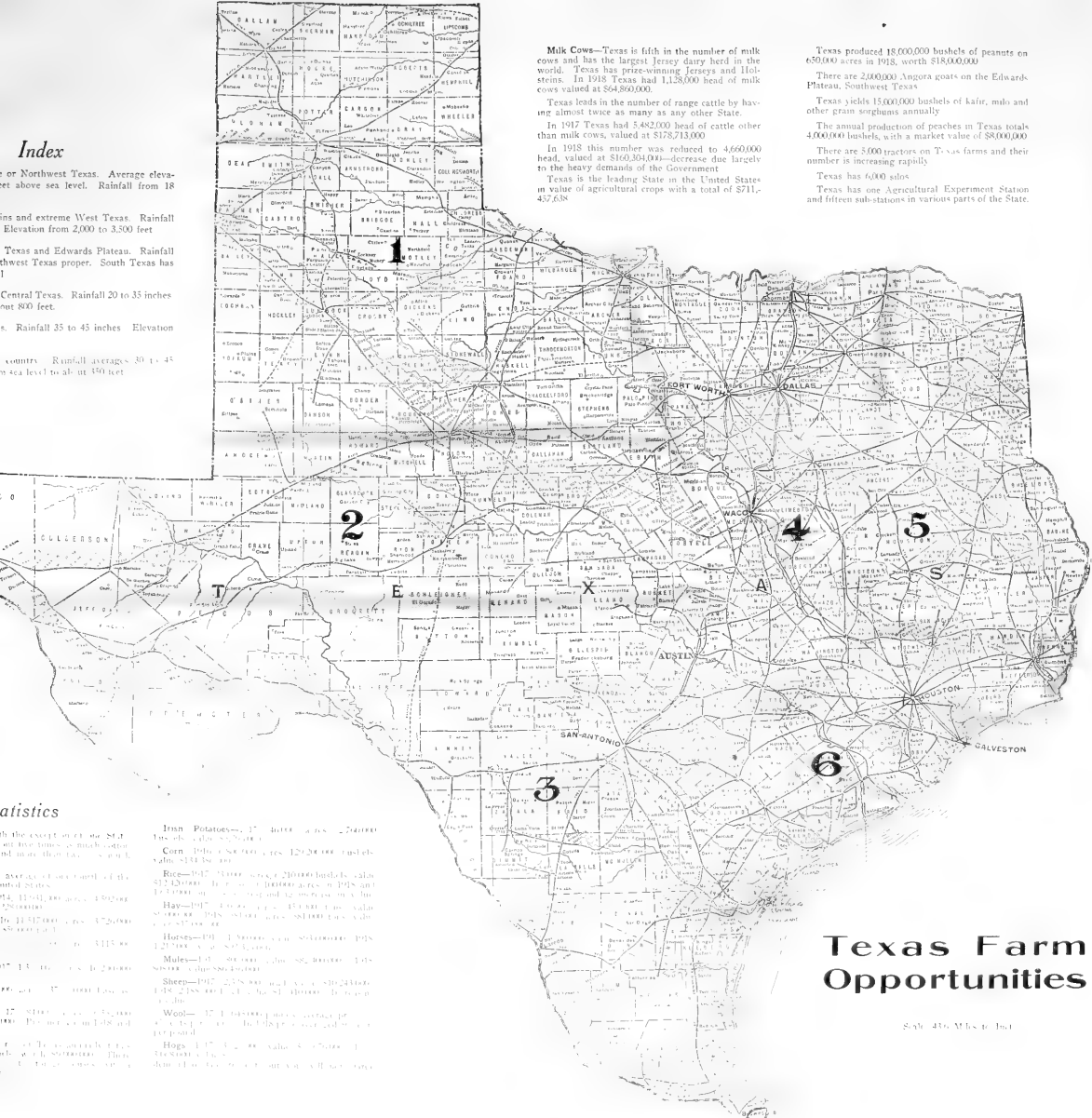
Texas yields 15,000,000 bushels of kafir, milo and other grain sorghums annually.

The annual production of peaches in Texas totals 4,000,000 bushels, with a market value of \$8,000,000.

There are 8,000 tractors on Texas farms and their number is increasing rapidly.

Texas has 6,000 silos.

Texas has one Aereicultural Experiment Station and fifteen sub-stations in various parts of the State.



Statistics

Wheat—1918—1,100,000 acres, 1,100,000 bushels, value \$11,000,000.

Corn—1918—1,100,000 acres, 1,100,000 bushels, value \$11,000,000.

Rice—1918—1,100,000 acres, 1,100,000 bushels, value \$11,000,000.

Hops—1918—1,100,000 acres, 1,100,000 bushels, value \$11,000,000.

Horses—1918—1,100,000 head, value \$11,000,000.

Mules—1918—1,100,000 head, value \$11,000,000.

Sheep—1918—1,100,000 head, value \$11,000,000.

Wool—1918—1,100,000 head, value \$11,000,000.

Hogs—1918—1,100,000 head, value \$11,000,000.

Texas Farm Opportunities

See Also: Map p. 104



Vacational Outings *in the* National Parks

YOUR National Parks are a vast region of peaks, canyons, glaciers, geysers, big trees, volcanoes, pre-historic ruins and other natural scenic wonders.

Visit them this summer—for fishing, mountain climbing and “roughing it.”

Ask for descriptive illustrated booklet of the National Park or National Monument you are specially interested in—here is the list: Crater Lake, Ore.; Glacier, Mont.; Grand Canyon, Ariz.; Hawaii; Hot Springs, Ark.; Mesa Verde, Colo.; Mt. Rainier, Wash.; Petrified Forest, Ariz.; Rocky Mountains, Colo.; Sequoia, Cal.; Yellowstone, Wyo.; Yosemite, Cal., and Zion, Utah.

Address

Travel Bureau, U. S. Railroad Administration, 646 Transportation Bldg., Chicago, Ill., or 143 Liberty St., New York City, or 602 Healey Bldg., Atlanta, Ga.

This Booklet Is Issued by

The United States Railroad Administration

J. L. EDWARDS, Mgr. Agricultural Section
Division of Traffic

WASHINGTON, D. C.

For Further Information Address

TEXAS STATE CAPITOL



To erect this building the State gave the contractors a block of counties equal in area to the grant which King James gave to the Earl of Warwick in 1630 to establish a colony in America, and which is now the State of Connecticut.

The Capitol Building measures 600 feet from east to west; from north to south it measures 287 feet; from the ground to the top of the dome 313 feet. The Texas Capitol is six feet higher than the National Capitol, the latter being only 307 feet. The outside of the Texas Capitol is built of the finest red granite secured from the quarries in Burnet County, Texas. Wainscoting is of oak, cherry, walnut, ash, cedar and mahogany. The total length of the wainscoting is eight miles. The building alone covers three acres, the floor space covering twenty acres. Construction was begun in 1882 and completed in 1886. In the grounds of the Capitol there are twenty-two acres, four acres of walks and four acres of drives.

TEXAS FARM OPPORTUNITIES

TRACTORS COMING INTO GENERAL USE.

Texas farmers are heavy purchasers of farm tractors since the beginning of the war. There are some 15,000 tractors in Texas at present. The generally level territory of the whole State makes tractor operation successful and not prohibitive in cost. North Texas is the small grain region of the State. In many instances large farms cover an area of several square miles allowing the maximum efficiency of tractor operation at lowest cost.

Motor trucks are also in considerable use on all up-to-date farms in Texas. Loads of five to seven tons are hauled. A popular practice is to use tractors and in some instances the smaller farm trucks for harvesting grain by attaching them to wheat binders or hauling a train of wagons full of wheat or corn. The use of tractors has made practical the employment of heavier and more labor-saving machinery. It is common sight to see a large tractor in Texas pulling a set of ten or a dozen gang plows.

TRANSPORTATION FACILITIES EXCELLENT.

Proximity to markets is one of the essentials of an agricultural producing territory. The main railroad trunk lines of the continent either pass through Texas or are within easy reach. For the live stock raiser the markets of Chicago, Kansas City and St. Louis are easily accessible, while Fort Worth, an important market for cattle, hogs and sheep, is located in the main cattle producing district of Texas, and with Houston, Dallas and San Antonio forms the important live stock markets of the State.

Texas has 15,500 miles of main line and branches, and 4,000 miles of yard tracks and sidings. This is the largest mileage of any State in the Union. More railroads will be built. In the undeveloped, or sparsely settled, portions of the State, railway facilities are also adequate to meet present freight traffic.

RIVERS OF TEXAS.

The six principal rivers of the State which traverse its territory in a more or less north and south direction, are from east to west, the Sabine, the Neches, the Trinity, the Brazos, the Colorado and the Rio Grande. All of these are navigable for a part of the distance from the Gulf, except the Colorado—the mouth of which is congested by a raft—but none of them have been improved sufficiently, or are sufficiently used, to relieve the railways of any considerable amount of transportation of agricultural products.

GREAT TEXAS OIL FIELDS.

Texas is one of the greatest oil-producing territories in the world. One-fourth of all the oil in the United States is refined in Texas. Oil has been found in many parts of the State in widely separated districts. Among the better known fields in point of production are:

Burkburnett, Ranger, Goose Creek, Humble, Electra, Breckenridge, Sour Lake, West Columbia, Brownwood, Comanche, De Leon, Batson, Damon's Mound, Spindletop, Petrolia, Hull, Saratoga, Moran, Archer, Iowa Park, Clay and Navarro Counties and others.

EDUCATIONAL FACILITIES.

Texas has a splendid system of education; starting with the public schools of the communities, through the consolidated district schools to the high schools of the towns and cities, and from these to the higher educational institutions of the State: The State Normal Schools, which are co-educational; the Girls' Industrial College; the Agricultural and Mechanical College, with its several branches, including a co-educational Industrial and Normal College for the colored youths of the State; finally, the University of the State, with its two branches, the State School of Mines and the State Medical College. In addition to the colleges named, and supported by the State, there are several denominational colleges and one institution of higher learning, privately endowed, which are highly creditable to the educational system of the State.

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Technically and legally, the Agricultural and Mechanical College is a branch of the University. Practically it is separate and distinct, being separately and distantly located from the University, with a separate board of control. The University and the public schools of the State have been well endowed from the public lands, Texas having reserved her public lands when she entered the Union after the war with Mexico. The University still owns most of her land, but most of that belonging to the public schools of the State has been sold.

GOOD ROADS.

The people of the State are fully sensible of the advantages afforded by good roads, of the necessity for their construction and maintenance. Considering the size of the State, it is fairly well supplied with good roads, but the total mileage of surfaced highways is rapidly increasing within the State. The State Government has a considerable fund for the construction of public highways, and this will be supplemented by a fund from the United States Government. These highways will, of course, be independent of the improved public roads in the several counties. In the southern part of the State there are many miles of shelled roads, and in the northern part of the State, the black land belt, the highways are being surfaced with gravel, or, in some cases, bituminous surface. In the western part of the State, in spite of its being sparsely settled, the dry climate and the abundance of gravel and rock make it possible to construct the necessary highways without any great burden upon the people.

CHURCHES.

The population of Texas is thoroughly cosmopolitan, not only made up of citizens from every State, but having within its borders people from many foreign countries—notably from Mexico, Germany, Bohemia, Italy, England, Poland, Denmark and Norway. The various religious denominations of this country and several foreign countries are represented, and church facilities may be said to be ample throughout the State.

CITIZENSHIP OF HIGH QUALITY.

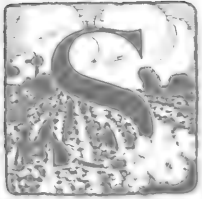
The citizenship of Texas compares with that of any State in the Union. The early settlement of Texas was by hardy pioneers, who came from Tennessee, Kentucky and Virginia. They carved out an Empire in the wilderness and fought their way to success against obstacles which would have daunted less hardy and determined men and women. The struggles for Texas independence are known to every school boy and the pages about the Alamo and the triumph over foreign oppression are radiant with heroism.

It must not be supposed that all of Texas is the home of great ranches and cattle. That may apply to the western part of the State and parts of the Gulf Coast country, where ranching on a large scale is still flourishing. East and North Texas are highly developed agricultural regions, with small and medium-sized farms devoted to the raising of standard crops suited to their territory. Modern homes abound and improvements of all kinds are common. Good roads, large, well-built barns, tight fences, modern equipment and general progress mark the farming portions of the State. The little isolated red school house is giving way to the consolidated school, in which children from the entire surrounding community are taught by teachers fitted for their work in the many higher educational institutions and Normal schools of the State.

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SOUTH CENTRAL TEXAS



OUTH CENTRAL TEXAS, from an agricultural standpoint, is a highly developed region. The northwestern part is generally known as the mountain section. South of this mountain section, the rainfall is lighter than in any other portion of the territory, but in this territory are found some of the best irrigation areas. Among these are Carrizo Springs and Crystal City, and many other places where irrigation is possible, but not yet developed. The black land section runs north and south through the middle portion. Lying southeast of

this black land is a strip, varying in width from a mile to ten or fifteen miles, and some geologists say it is the old Gulf shore line. Southeast of this is an area of gently rolling lands. Between this and the coast are the level coastal plains.

The general direction of all streams that drain this territory is southeastward, and all of them rise in the mountainous territory. These embrace the Colorado, Guadalupe, San Antonio, Medina, Frio and Nueces Rivers and their tributaries. However, there are several small and somewhat short streams. These are remarkable because they are dry most of the time, yet apparently are the channels through which surface waters seep and form considerable artesian areas covering many thousand acres. This artesian area is part of the one nearest to and running nearly parallel to the Gulf coast. There is another artesian area that lies between the two sand belts above described, which begins in the general vicinity of Carrizo Springs and runs east through the territory. The third artesian area follows a line of springs that are on the edge of the mountain section. This line of springs is generally west and north along the mountains. Here may be found some of the largest springs in the world. Some of the greatest artesian wells are also to be found here, and the purity of their water is not excelled.

Plant life of the mountain section differs entirely from that of portions southeast. The mountain section carries cedar, oak and various kinds of hard woods, while the



A Flock of S. C. White Leghorn Layers.

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timber of the portion southeast is almost entirely of the general mesquite variety. Similar differences exist in the various vegetations. This mountain section also exercises a large influence on the climate and rainfall, and is one of the potent factors in making South Central Texas a desirable place to live.

SOILS.

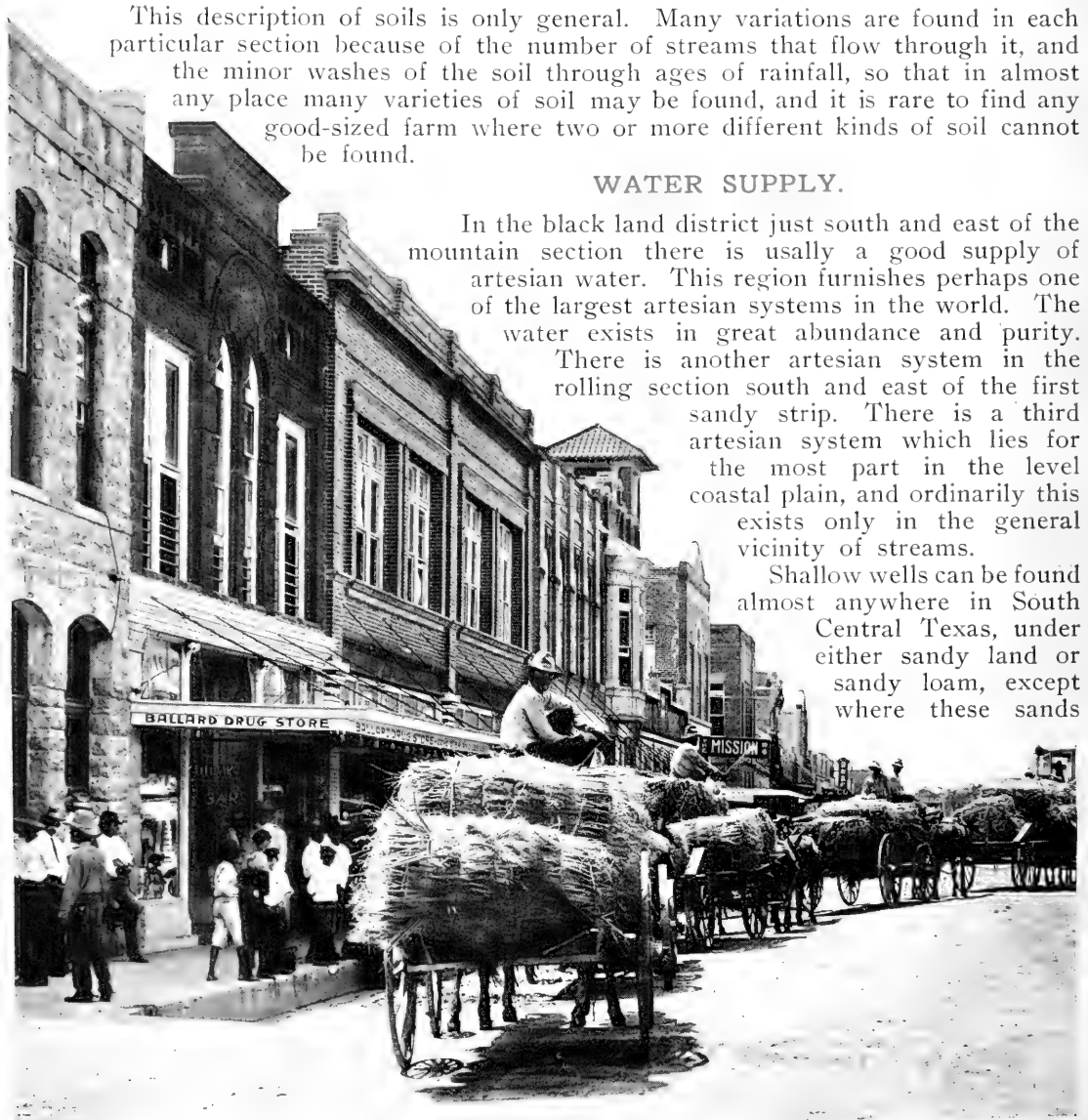
Soils of South Central Texas are various. Those of the valleys in the mountain section are generally black and almost entirely free from sand. Black soil prevails along the south and east edges of the mountain section, but is more of a nature of clay. Lying immediately south and east of this black clay is a strip of sandy loam. These valley lands are of unusual richness, and the sandy loam generally has enough mixture of other soils to make it valuable. Lying south and east of this sandy loam is an area of land gently rolling or moderately rolling. The lands are ordinarily of the loam variety, and vary from light sandy to the heavy black loam, and are suited to general diversified farming. South and east of this rolling area are the black coastal lands.

This description of soils is only general. Many variations are found in each particular section because of the number of streams that flow through it, and the minor washes of the soil through ages of rainfall, so that in almost any place many varieties of soil may be found, and it is rare to find any good-sized farm where two or more different kinds of soil cannot be found.

WATER SUPPLY.

In the black land district just south and east of the mountain section there is usually a good supply of artesian water. This region furnishes perhaps one of the largest artesian systems in the world. The water exists in great abundance and purity. There is another artesian system in the rolling section south and east of the first sandy strip. There is a third artesian system which lies for the most part in the level coastal plain, and ordinarily this exists only in the general vicinity of streams.

Shallow wells can be found almost anywhere in South Central Texas, under either sandy land or sandy loam, except where these sands



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deepen in an outcrop of an artesian water supply, but shallow wells have never been found in South Central Texas under black, compact, or clay lands. The above statements apply only to raw or uncultivated lands. After the compact lands have

been cultivated for a term of years the shallow well usually appears, so that it is safe to say that within five or ten years after any considerable body of lands of South Central Texas has been cultivated there will appear in most cases a good supply of water in shallow wells.

RAINFALL.

The rainfall in South Central Texas varies from about 20 inches on the extreme west to about 40 inches in the extreme eastern part, there being a decrease in the rainfall from east to west. The rainfall of South Central Texas is not evenly distributed, but the interior parts west of the Colorado River have the heaviest average rainfall in April and May, with another period of less rain in late summer or early autumn. The rainfall in winter is lightest, and in the late summer a little more than in winter.

CONSERVATION OF MOISTURE.

Except in the eastern part of South Central Texas there is little or no need for drainage, but there is a necessity for conserving moisture. This is accomplished in two ways. First, by plowing the land in the fall the soil is made loose and porous, and will take in the fall and winter rains, and so accumulate a stock of moisture. On the other hand, if compact lands are allowed to remain unplowed, much of the rainfall will run off down the streams. By frequent shallow cultivations of the soil during the crop season a mulch is obtained on the top of the ground that prevents the evaporation of moisture. These two ways constitute the difference between farming in the rain belt and in



Corn grown in South Central Texas

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Cabbage grown in South Central Texas

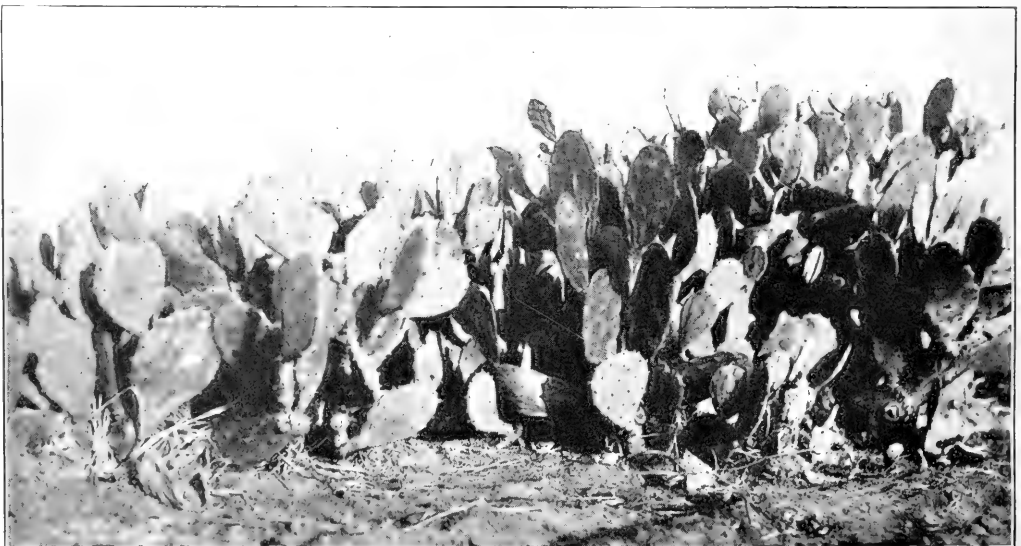
South Central Texas, and the farmer who observes these two rules of plowing the land in the fall and giving crops frequent shallow cultivation will very seldom fail.

FARM CROPS.

Many of the successful farm crops of South Central Texas are familiar to those who have lived and farmed in the North, and others are equally as familiar to those who have lived and farmed in the South.

Cotton is the chief crop. The idea is to make the cotton crop better on a smaller acreage.

A larger acreage of grains and grain crops is desired. These crops are usually confined to corn or grain sorghums. It is not usually believed best to grow corn where the rainfall is less than 35 inches, and it is ordinarily not best to attempt to grow much corn unless winter rainfall has been good. On the other hand, it is usually not advisable to attempt to grow grain sorghums where the rainfall is over 30 inches.



Spineless Cactus, South Central Texas Cattle Emergency Feed

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Another reason why grain sorghums are preferred is that after the first crop is cut, they will revive and grow a second crop. In regions of less than 30 inches of rainfall grain sorghums will average double the production of corn, and they are fully the equal, ton for ton, of corn for silage and fodder. The method of planting and cultivating grain sorghums is precisely like that of corn.

For the loam and sandy lands peanuts are the best feed crop. Peanuts are readily marketed for cash, and at the present time are selling for \$1.50 to \$1.75 per bushel. It is also possible to exchange peanuts for peanut meal at some of the oil mills. Peanuts are especially valuable as first crop on new land.

Among the winter feed crops may be mentioned oats, rye, bur clover and rape. It is especially true that bur clover is a satisfactory crop in the eastern part of South Central Texas, where it will go very far toward supplying the green feed that is required by dairy cows and cattle during the winter. Among summer pastures can be mentioned Sudan grass. It is also valuable for hay. Where the lime in the ground is sufficient, white sweet clover is valuable for pasture or hay, and is also one of the best fertilizers known.



Egyptian Wheat, one of the Grain Sorghums, South Central Texas (Corn on right)

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RHODES GRASS.

Rhodes grass is probably the most valuable grass for South Central Texas, either for pasture or hay. It will not survive a temperature colder than 14 degrees F. A single bunch of this grass may extend until it will be from two to four feet in diameter and ordinarily it is from 12 to 18 inches thick. This grass will live through drouth, but it will not produce during severe drouths. It will, however, revive on rainfall and continue production. It does best under rainfall or irrigation, and its growth under favorable conditions is so rapid as to challenge belief. It will pasture two steers or yield from four to eight tons of hay per acre, under favorable conditions.



Cotton Plant in South Central Texas

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The climate of South Central Texas is excellent for raising live stock. The mild and comparatively dry winters enable the feeding of live stock cheaply. The largest dairy in the United States is located in South Central Texas. The bulk of the fortunes in South Central Texas have been made through handling cattle.

There are excellent opportunities for hog raising, and there is no better feed than a combination of meal from the grain sorghums and peanut meal.

Vegetables can be grown every month of the year. Among truck crops that are most successful are sweet potatoes. Irish potatoes will also do well in many places, and many varieties of peas and beans. Among fruits that are successful may be mentioned plums, pears, grapes, figs, early varieties of peaches. Strawberries, dewberries and blackberries can be grown in abundance.

Commercial truck growing is receiving more attention in favored localities. The



Jersey Herd in Alfalfa Field, South Central Texas

large markets located in this part of the State are favorable to quick sale and good prices. A large tourist business is catered to and fancy shipments of truck are in demand. Labor is usually adequate to handling the crop advantageously.

POULTRY PROFITABLE.

There are unlimited opportunities for poultry raising. In one of the counties of South Central Texas the "turkey trot" was substituted for the county fair, and as many as 14,000 turkeys were driven through town at one time.



Sudan Grass—Three cuttings a year. One ton to the acre. South Central Texas

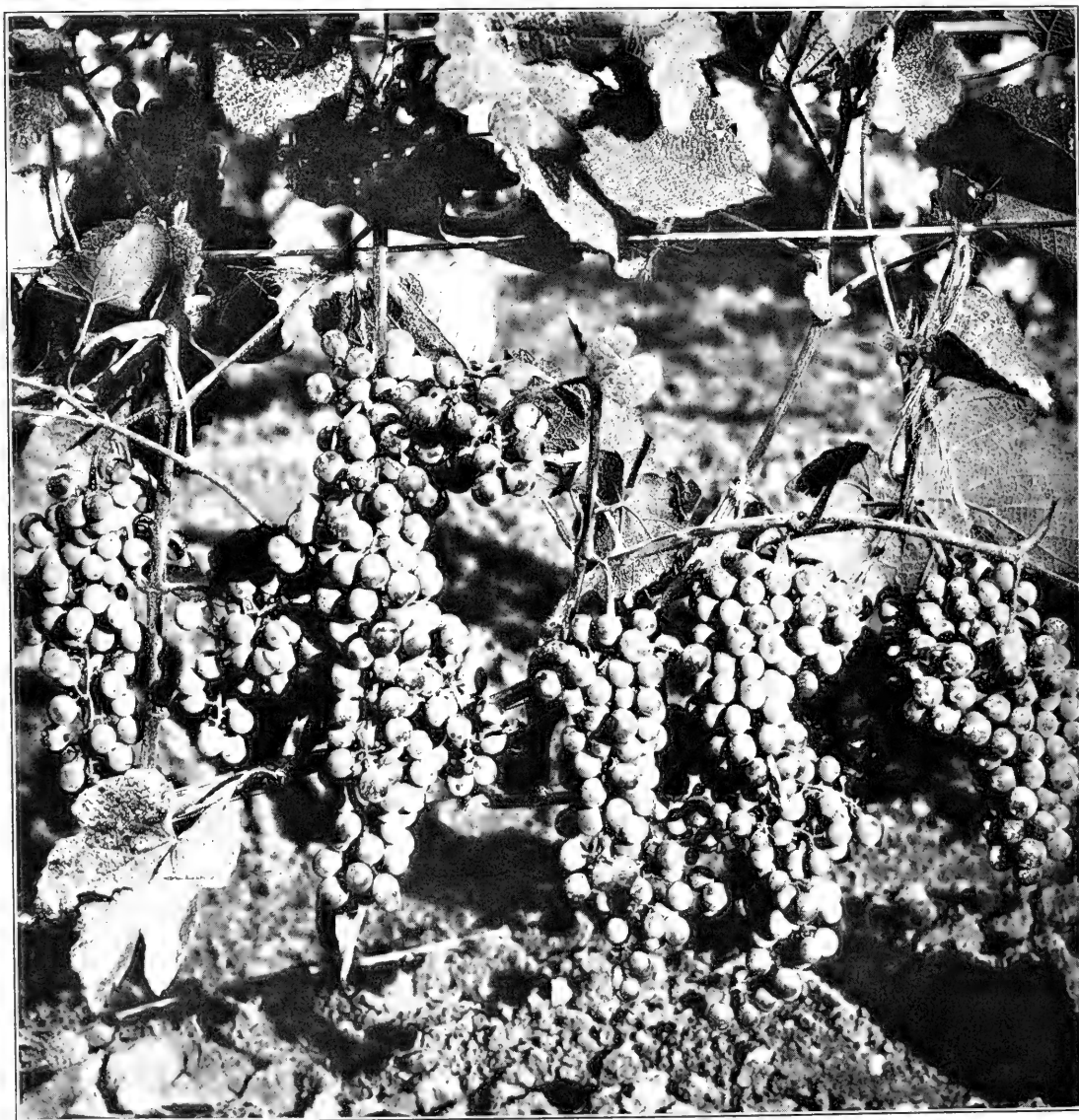
SILOS.

Texas has 7,000 silos, the largest number being in Southeast Texas. There are two distinct types; the well-known type built above ground and the underground.

TEXAS FARM OPPORTUNITIES

It is important to have silos on the farm, and where soil permits it is usually better to have an underground form. The more satisfactory size is about 12 feet in diameter, and 30 feet deep with a cement curb at the top rising about four feet above the ground, and the walls and the bottom of the silo plastered with cement. This type of silo is cheap and satisfactory. There should be several silos on the farm, in which enough silage will be stored to satisfy the needs of the farmer for at least a year.

A very satisfactory way of keeping grain is to cut off the heads of the grain sorghums, leaving about two or three feet of stems attached, and putting them in stacks with the heads on the inside of the stack. These stacks are very much like the ordinary stacks of hay, and grain sorghums put up in this way have been kept satisfactorily for two or three years.



Grapes Growing in South Central Texas

TEXAS FARM OPPORTUNITIES

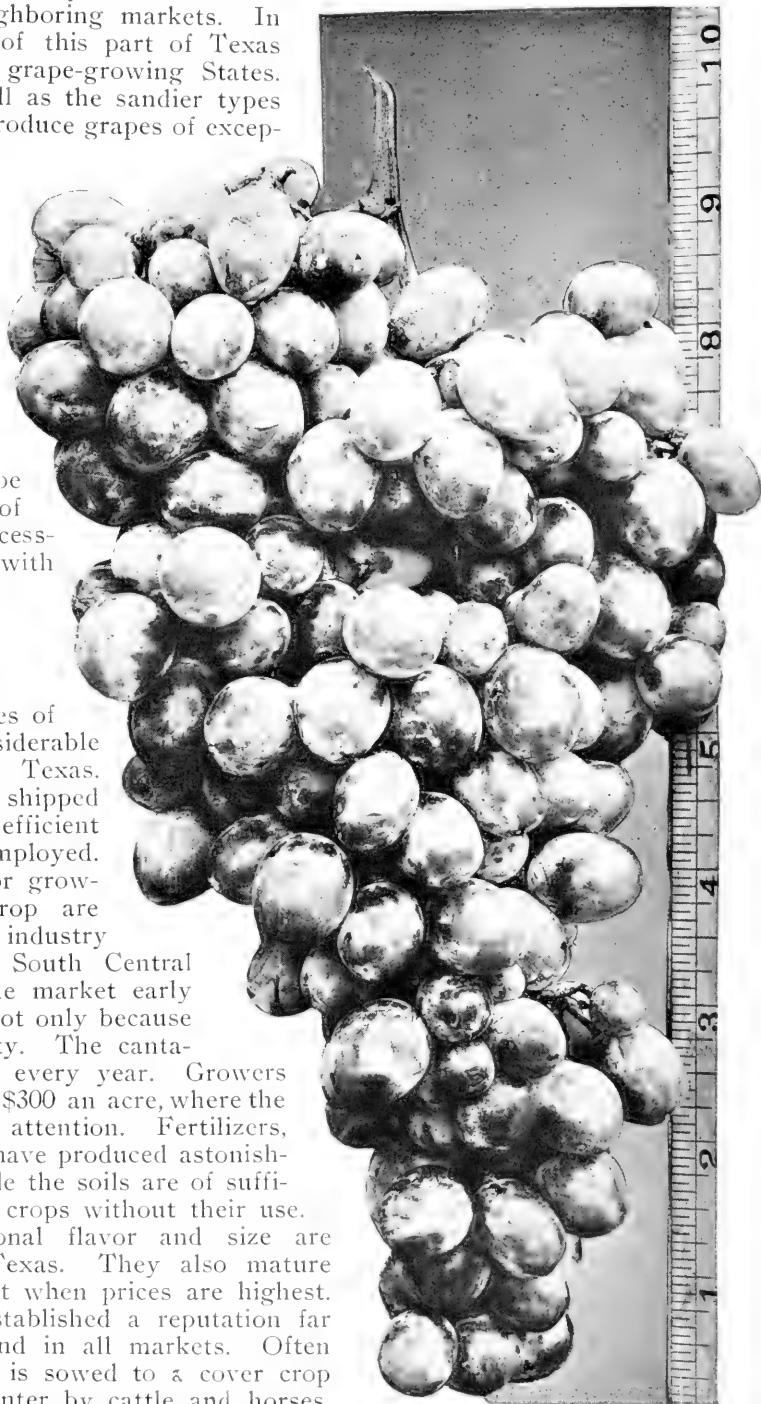
GRAPE GROWING.

The vineyards of South Central Texas have been famous for almost a century. In the early days European grapes of Spanish and Italian origin were cultivated by the padres in the missions established in the wilds. Excellent table grapes have been grown under irrigation on many farms and are shipped to Texas and neighboring markets. In many respects the soils of this part of Texas resemble those of famous grape-growing States. The limestone soils, as well as the sandier types underlaid with limestone, produce grapes of exceptional table flavor and high market value. Modern methods of marketing the crop are in use in many vineyards. A large part of the crop is marketed locally and shipments are made to Northern States. Grape vines in South Central Texas grow to a great age and reach a large diameter, showing that the climate is adaptable to grape growing. Some varieties of wild grapes have been successfully developed and crossed with table varieties.

CANTALOUPE AN IMPORTANT CROP.

The raising of cantaloupes of many varieties is a considerable industry in South Central Texas. Train loads of melons are shipped to the large markets and efficient marketing methods are employed. Co-operative associations for growing and marketing the crop are placing the cantaloupe industry upon a firm foundation. South Central Texas cantaloupes reach the market early and command high prices, not only because of flavor, but early maturity. The cantaloupe acreage is increasing every year. Growers report incomes from \$100 to \$300 an acre, where the crop has received proper attention. Fertilizers, when used with judgment, have produced astonishing yields, although as a rule the soils are of sufficient fertility to yield large crops without their use.

Watermelons of exceptional flavor and size are grown in South Central Texas. They also mature very early and reach market when prices are highest. Texas watermelons have established a reputation far and wide and are in demand in all markets. Often the land planted to melons is sowed to a cover crop and pastured during the winter by cattle and horses. In this manner fertility is maintained from year to year.



Grapes grow finely in South Central Texas

TEXAS FARM OPPORTUNITIES

Pie melons for stock feeding, especially dairy cows, are grown with success. They yield amazingly and are known to be a cheap source of essential feed for live stock.

EXCELLENT HIGHWAYS EXIST

The highways of Texas have been brought to a high state of efficiency in recent years. Texas is building more roads than ever in its history, and its bond issues run into many millions. The State has an abundance of exceptionally valuable road building material in its mountains and plateaus. There are gravel beds in practically all parts of the State from which road material is gotten at small cost.



Cantaloupes in South Central Texas

TEXAS FARM OPPORTUNITIES

IRRIGATION IN SOUTH CENTRAL TEXAS.

The irrigation possibilities of South Central Texas are great. The rivers which traverse this territory can be made to irrigate the crops growing on adjoining fields. Various systems of irrigation are in use. Waters are impounded during periods of overflow in natural or artificial reservoirs. The gravel beds alongside river courses,

Orange Tree 30 years old, South Texas

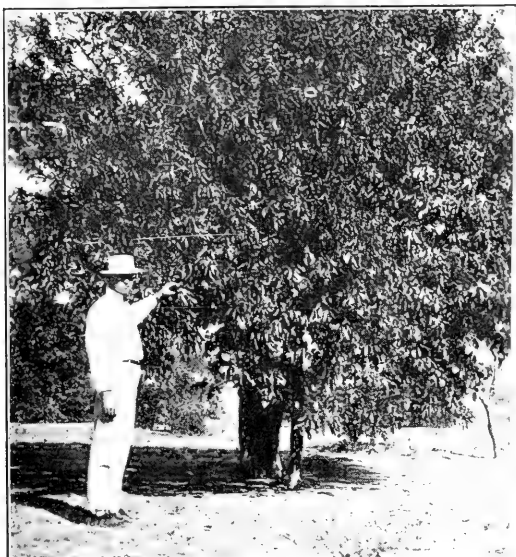


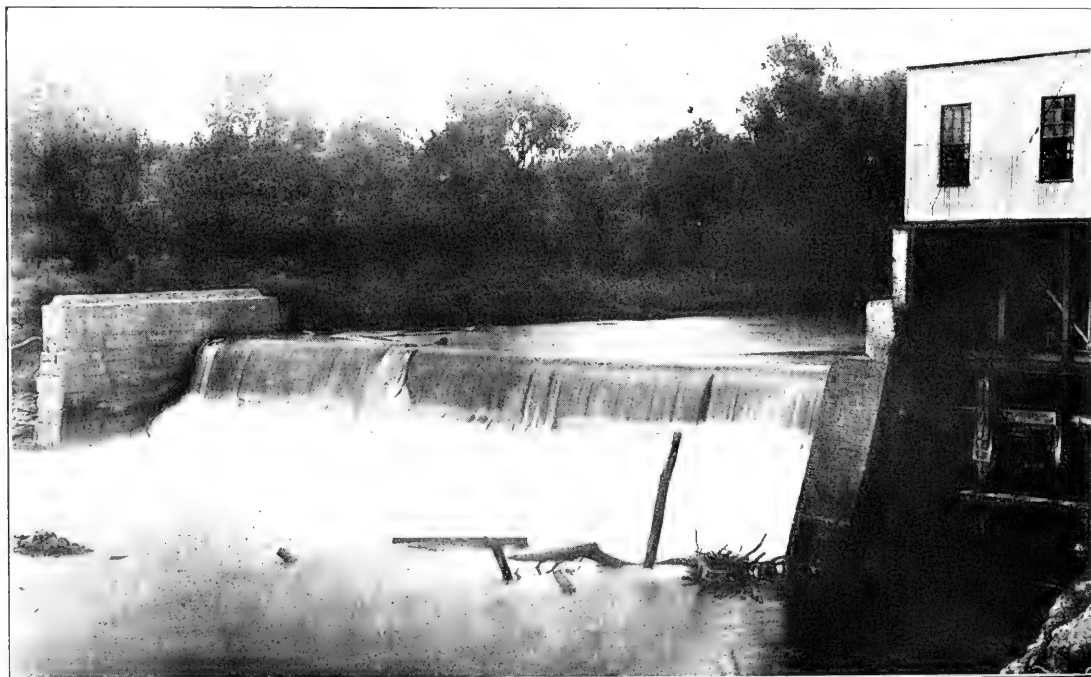
Fig Orchard, South Central Texas

TEXAS FARM OPPORTUNITIES

forming the ancient stream beds, have a constant subterranean flow of water which can be pumped to the fields with an average lift of twenty-five to fifty feet. Such pumping stations have been shown to be highly profitable and inexpensive as to upkeep. Often the course of a stream is such that the waters can be diverted at certain points and



Good Road, South Central Texas



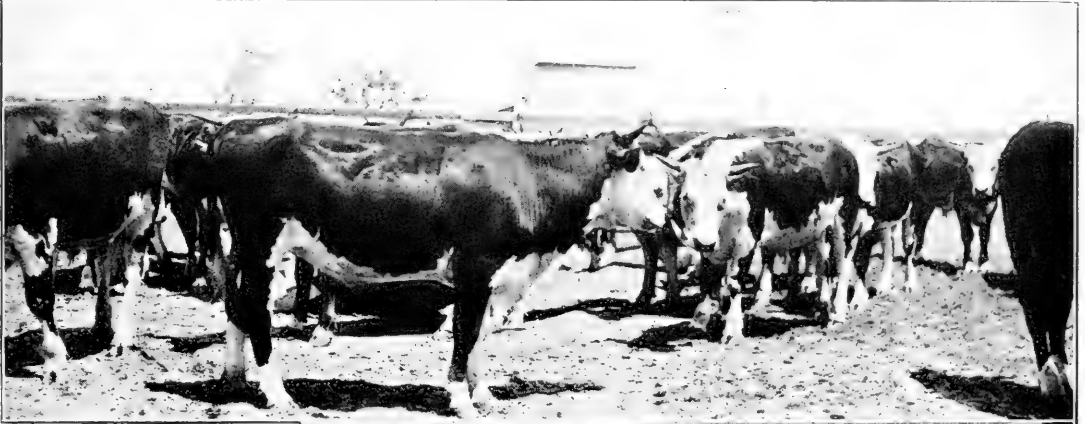
Irrigation and Power Dam, Guadalupe, South Central Texas

TEXAS FARM OPPORTUNITIES

made to flow by gravity on either side, later finding their way again into the stream proper.

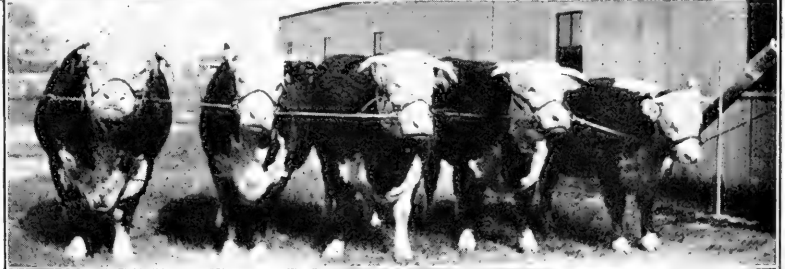
The use of water on crops in South Central Texas is magical. The soils are productive, and when timely water is added the crops grow luxuriantly. Cotton, corn, grain sorghums, alfalfa, Sudan grass, several varieties of cane and Rhodes grass are irrigated successfully and made to yield huge crops. Feed crops under irrigation mean a stable live stock industry. Dairying is on the increase and better cows have been introduced of late.

Truck crops are irrigated successfully and are shipped to the large cities located near by as well as to distant markets. In many cases the truck crops are made to rotate



with feed crops, establishing a profitable farming system and returning large incomes per acre.

Irrigation of home gardens and shade trees helps to make the home more attractive. Highways, in some instances, are lined with shade trees watered from adjoining creeks or rivers. Several streams are fed from springs in western mountains and flow the entire year.



With the introduction of water, greater attention has been paid to beautifying the surroundings. Flower gardens now are common and rambling vines may be seen growing over windows and on trellises. Where shallow water is found windmills have been put in operation to pump the water onto adjoining acres, and truck crops are kept in flourishing condition. On some farms field crops such as red-top, various varieties of cane and grain sorghums, are irrigated on both large and small scale, thus assuring a sufficient amount of feed crops in times of stress. A double-operating windmill on one derrick has been used with success on farms. The depth to water in parts of South Central Texas makes pumping inexpensive, and this phase of farming is gradually being enlarged.



Top: Hereford Cattle, South Central Texas. Center: Baby Herefords, South Central Texas. Bottom: Pure-bred Hereford Bull, South Central Texas

In no sense must this irrigation be considered as absolutely essential to farming, but it may be considered as a supplemental matter in times of insufficient rainfall at a critical time.

NORTH AND CENTRAL TEXAS



ORTH TEXAS is pre-eminently a grain, hay, forage crop, live stock, dairy and cotton-producing territory. It is the most highly developed region of Texas, and leads in the value of agricultural output. The famous black prairie belt of North Texas is a territory occupied by successful farmers. There are all the signs of prosperity—beautiful, large and comfortable homes, great barns and stables, large plantations and farms, good roads and an excellent system of railroads. The opportunities of North Texas are many and varied. The soil is

of highest fertility, being composed of disintegrated limestone and enriched through ages of decaying vegetation on the former prairies. Wherever good farm practices are in use the returns are high.

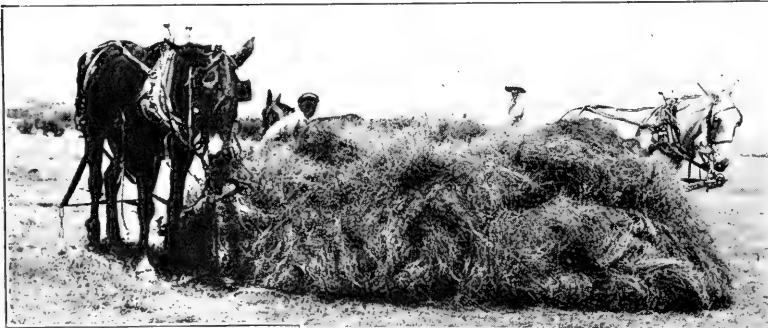
North Texas leads the State in the number of developed farms. Several of the largest cities of the Southwest are located in this territory, surrounded by fields noted for their productivity. Cotton for years has been the

chief farm crop in North Texas, for which the soil is admirably adapted, but of recent years more attention has been paid to the introduction of pure-bred live stock, work stock and dairy stock, and gradually the farmers are beginning to diversify on a large scale. Crop rotation has resulted in phenomenal changes, and has opened the eyes of farmers to latent possibilities formerly overlooked.

Practically all of the wheat raised in Texas is grown in North Texas. The same may be said of the oats, rye



Harvesting Barley, North Texas



Hay Making,
North Texas

and barley. The northern tier of counties are famous for their uniformly dependable production of cereals. Some of the largest wheat elevators in



Hay Harvest, North Texas

TEXAS FARM OPPORTUNITIES

Texas are not far from the Red River, which is the northern border of the State. Flouring mills have sprung up as a result, doing a thriving business.

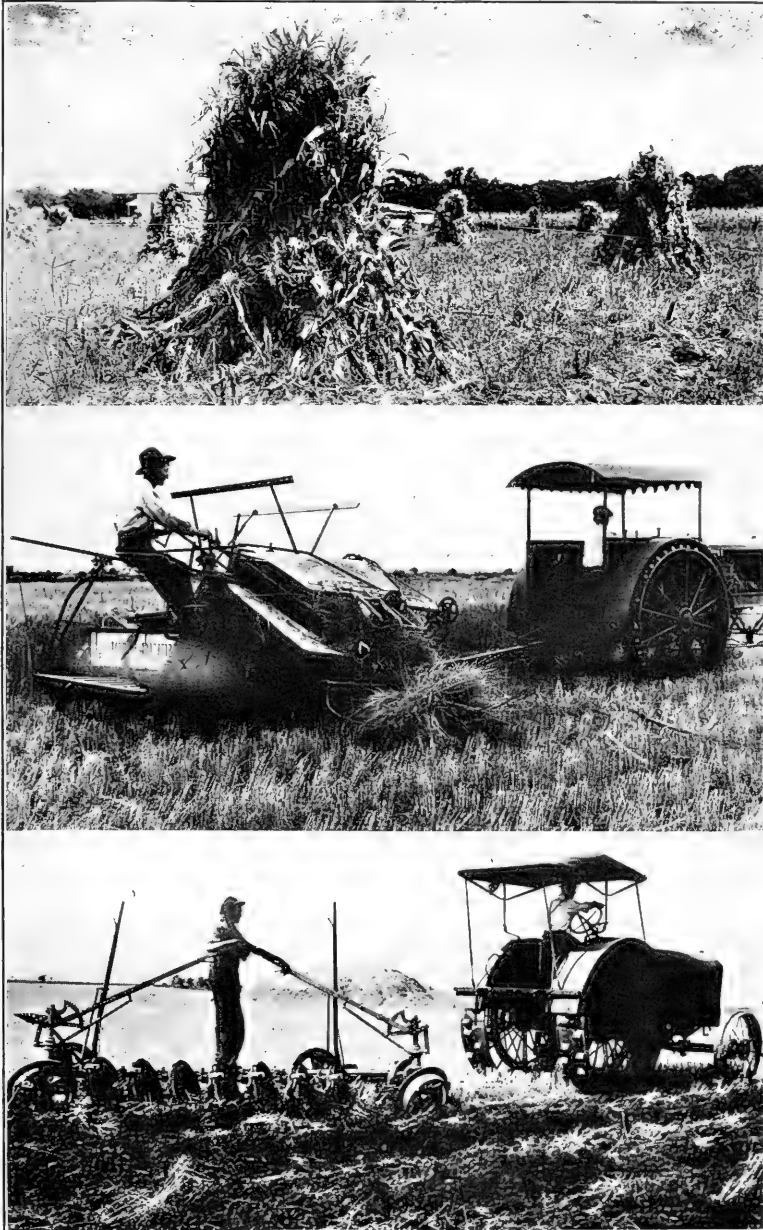
A PROMISING DAIRY COUNTRY.

Texas presents unusual opportunities for dairying either on a large or small scale. Millions of dollars' worth of condensed milk and cream are shipped into the State annually, the money for which should all be kept at home. In the last few years dairying has grown rapidly in many parts of the State. North and Central Texas

are the leaders in dairying at present. Holstein cows of pure-bred stock have been imported into Texas from Northern herds and have easily acclimated themselves and made large profits for their owners. Several large cities of North and Central Texas have set aside funds at the disposal of reliable farmers and dairymen for the purchase of pure-bred cows. Bankers and business men have interested themselves in the possibilities of dairying under modern scientific management.

The Jersey cow has long been the standard dairy cow of Texas. She is the ideal family cow, and occupies an important place in the dairy industry of the Southwest. There are thousands of Jersey cows in the State and their owners are improving the milk-yielding powers by breeding from selected and proven types. Better bulls out of high milk-producing strains of Jerseys are being crossed with the cows and general improvement has followed.

The introduction of Northern Holstein



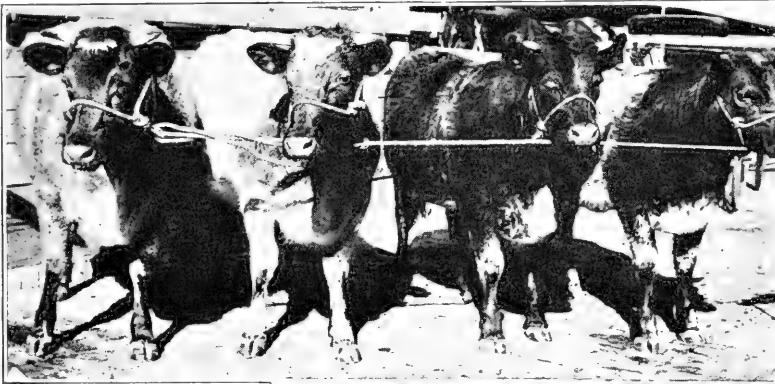
Top: Corn in shock, North Texas. Center: Tractor Harvesting Wheat, North Texas. Bottom: Tractor plowing in wheat stubble, North Texas.

TEXAS FARM OPPORTUNITIES

cows into Texas has increased the value of milch cows generally. A cow giving 3,500 pounds of milk a year at present commands \$75 in value. A cow giving 8,000 pounds of milk a year is valued at \$250, and one giving 12,000 pounds is worth \$350 to \$500. Registered Hereford bulls have been crossed with great success on native cows of milk type. Milk prices in Texas cities are high, because it has been impossible to supply the demand with the present herds.

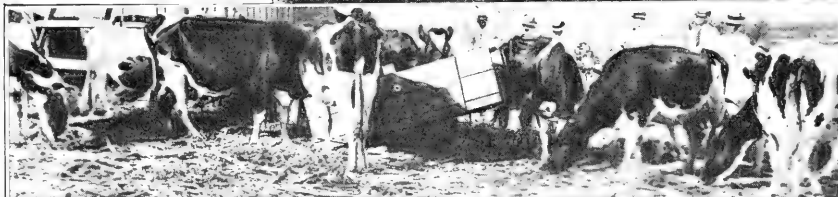
ALFALFA EXCELLENT DAIRY FEED.

There are thousands of acres of alfalfa in North Texas in the bottoms of the black land belt. The natural limestone ingredient of the soil makes alfalfa very productive.

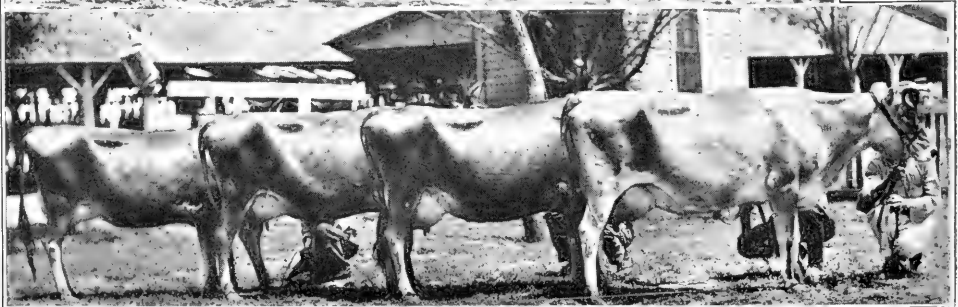


Quartet
of Baby
Shorthorns,
Central
Texas

Holsteins in
North Texas



Hol-
steins
in
North
Texas



Group of Jerseys in North Texas

Alfalfa is the principal hay fed to dairy cows. There are yields of alfalfa which total seven tons an acre in five or six cuttings, depending upon seasonal conditions. Large

TEXAS FARM OPPORTUNITIES

barns may be seen on farms where alfalfa hay is stored. In winter it commands from \$25 to \$40 a ton, and the supply is never equal to the demand.

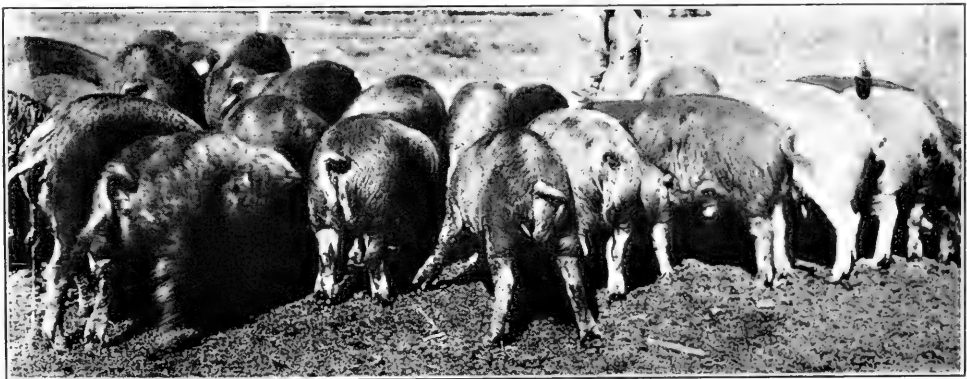
Sweet clover, which is one of the most productive clover varieties, is beginning to be introduced on Texas farms in limestone regions. This hay, which was formerly considered a weed, today is winning the support of practical farmers and feeders. When cut at the right stage of development it makes excellent hay and has almost the same feeding value as alfalfa. Sandy soils will grow sweet clover if they are given a liming. A ton of lime will correct the acidity of soil which interferes with the growth of legumes.



Immunized Hogs in Central Texas

LARGEST COTTON COUNTY IN WORLD.

One of the North Texas counties is the largest cotton-producing region in the world. In a good year this one county will market 110,000 to 140,000 bales of cotton of superior quality. The black prairie lands are suited to the growing of longer staple cotton than the ordinary inch staple. Farmers are co-operating to produce a uniform product and obtain a uniform price. The excellent work of the United States Depart-



Stocker Hogs being finished on North Texas Farm

ment of Agriculture in opening classing offices for testing the length of staple, free of charge to farmers, has had much to do with standardizing the output. The most profitable varieties grown in North Texas are those which make a staple averaging one and one-sixteenth to one and one-eighth inches in length, and selling at a premium over inch cotton. The greatest step forward in the history of Texas cotton was taken last August, when the Bureau of Markets opened twelve classing offices in the State.

TEXAS FARM OPPORTUNITIES

A dozen more offices will be opened this year, and practically the entire State will be affected. The sales made through the classing offices netted farmers who made use of them more than \$2,000,000 additional profits. The marketing results were so successful that other crops besides cotton are to be handled along similar lines.

Some of the largest cotton warehouses in the world are located in North Texas. Texas cotton has a fame throughout the spinning world, based upon the hard, tough,

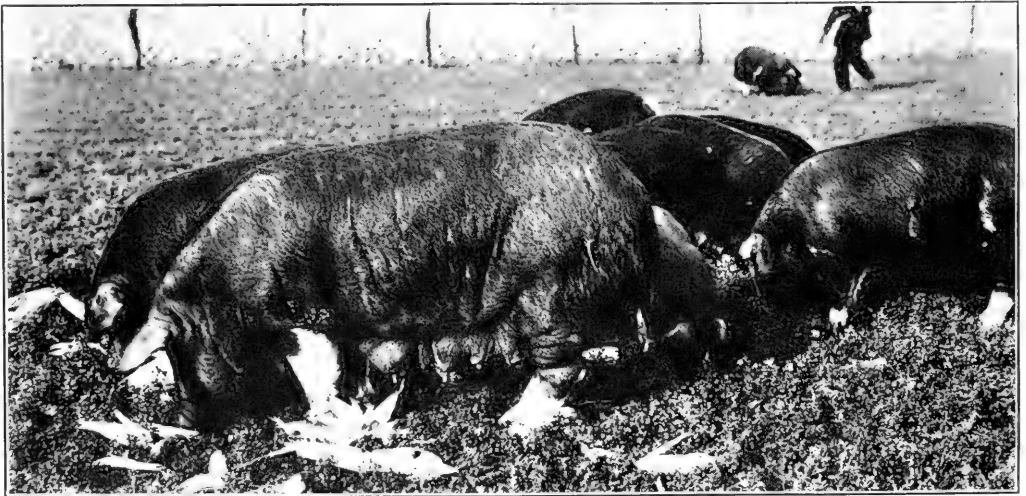


Young Poland-Chinas at mess in a North Texas Hog Yard

wiry staple which distinguishes it from other cotton. It has special uses in manufacture and commands a premium.

LIVE STOCK INDUSTRY GROWING.

The live stock industry of North Texas has been placed upon a business basis and upon scientific farm management. The Hereford breed is most popular, and large



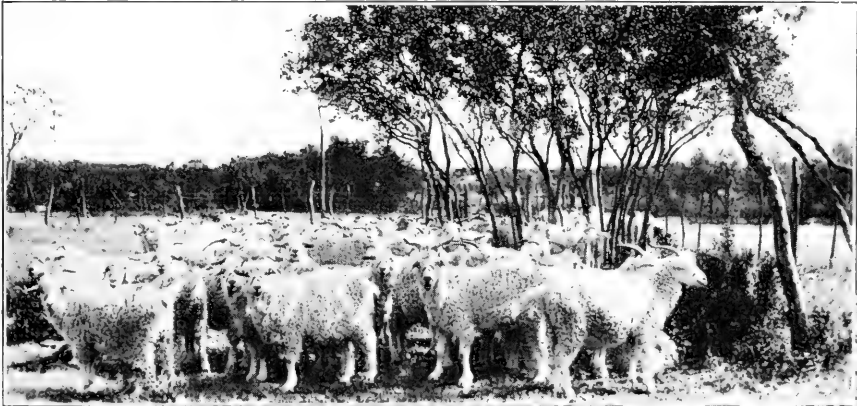
Big-boned Poland-China Hogs on Alfalfa, North Texas

herds are not only grassed, but are finished for market on Texas-grown feeds. The modern cattle feeder is not content to grass his steer and send him to Northern farms for finishing. In years of large crops the grain value is enhanced by feeding it to cattle and marketing the crop on four feet. Should corn prove insufficient for fattening steers, then kafir, milo and feterita are relied upon. They are almost as good as

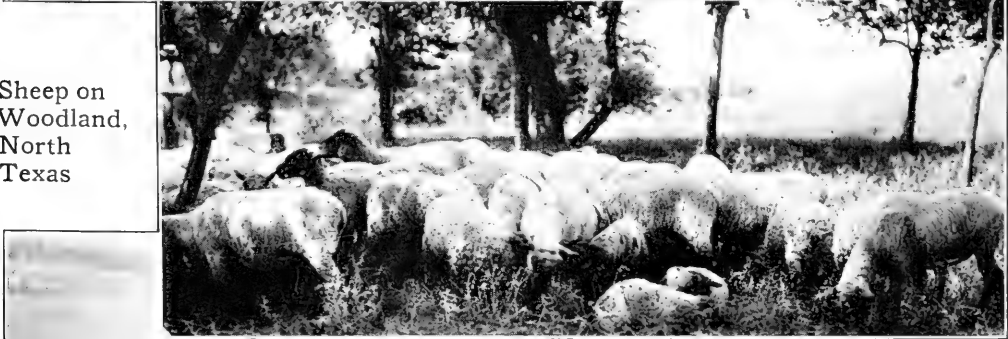
TEXAS FARM OPPORTUNITIES

corn, according to the experiences of practical feeders and of the various Texas experiment stations, which have established standards of relative feeding values.

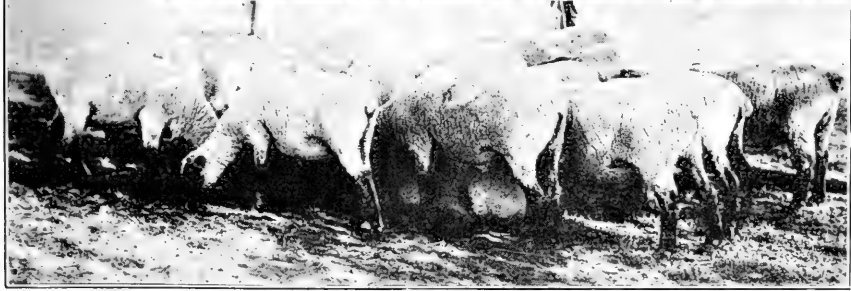
The feeding of hogs is an important industry. In Texas it is not wholly based upon corn, as is the case in corn States. On the contrary, hogs may be grown to a stocker weight of 80 to 125 pounds on rape, alfalfa, Sudan grass, peanuts and such winter pasture as wheat, barley, rye and oats. This combination of feed will insure quick growth. Later the hogs can either be shipped to other territory for finishing on cheap concentrates or be finished on home-grown kafir, milo, feterita, corn or barley. Barley as a hog feed in North Texas is receiving the attention of practical feeders more and more every year. The barley will yield from 35 to 50 bushels an acre, and is out of the field by June. This makes it the earliest feed crop that can be grown in North



Angora
Goats,
North
Texas



Sheep on
Woodland,
North
Texas



Hampshire-
down
Sheep,
North
Texas

Texas. Barley is soaked in water, or it is ground and fed dry to the hogs. The gains made are equal to corn. Milo will yield 25 to 60 bushels an acre, and kafir and feterita about the same, depending upon conditions. Milo is better adapted to growing in West and Northwest Texas, where the dry climate is suitable to its demands. The grain sorghums cannot be grown far east of the 25-inch rainfall line, as they are attacked by a midge with fatal consequences. Corn, under proper tillage, will yield an average of 25 to 40 bushels an acre in a good season of well-distributed rainfall.

TEXAS FARM OPPORTUNITIES

SHEEP ON MANY FARMS.

Sheep are becoming common on North Texas farms, where they are used in an entirely new manner. Instead of keeping the sheep on the native prairies, they are now allowed the run of the entire farm at different seasons of the year. The enlightened sheep farmer lets the sheep into his corn field to eat the cowpeas after the corn harvest. He grazes the sheep on barley, oats, rye or wheat in the fall. He lets them go into practically every field to eat the weeds and grass in the fence corners and out-of-the-



Irrigated Corn and Velvet Beans, Brazos Valley, Central Texas

way places. In this way they become very profitable, as their feed cost is reduced to a minimum. Sheep, of course, must be fed regularly to do their best, but there are so many fields which will afford good sheep pasture if the farmer only had the sheep to graze them.

TEXAS FARM OPPORTUNITIES

ANGORA GOATS ARE POPULAR.

The Angora goat also is becoming popular on Texas farms. Stocker goats are bought at the Texas live stock markets and shipped to farms to consume corn fodder and such other crops as will afford late fall roughage. They are fed some cottonseed meal on grass. Experiments with Velvet beans have proved highly successful when goats have been turned into the corn fields where the beans grew.

POULTRY AND EGGS PAY.

As a poultry and egg producing section North Texas has an enviable record. The mixed flocks are rapidly passing out of use. The average farm is supplied with pure-bred breeding stock of the accepted egg-laying or meat breeds. There are annual poultry shows which stir up enthusiasm and rivalry and encourage the raising of desir-



Irrigated Garden Truck, Brazos Valley, Central Texas

able birds. The poultry department of the Texas Agricultural College Extension Service, which affects all parts of the State, is one of the best equipped in the country. The large cities of Texas offer an excellent market for eggs and fowls. The demand is far above the present supply. The short and comparatively mild winters encourage egg laying at a time when prices are highest. Simple poultry houses are sufficient. No glass fronts are required. A wire screen front is in common use and gives full satisfaction. On cold nights a curtain may be lowered to protect the birds. There is remarkably little disease. Many men and women are engaged in the exclusive raising and marketing of poultry and eggs.

TEXAS FARM OPPORTUNITIES



Oats yielding 75 bushels an acre, Central Texas

CENTRAL TEXAS.



Sweet Clover, North Texas

Central Texas is in reality the southern continuation of North Texas. It occupies the geographical center of the State. The chief grain crops are corn, wheat, oats, rye and the grain sorghums. Cotton is grown throughout Central Texas. Large oil mills and cotton compresses are located in the larger cities.

The famous black lands occupy a large area of Central Texas.

The live stock industry is well advanced, the larger herds consisting of pure-bred Herefords, Shorthorns and Aberdeen Angus. Hogs and sheep are also raised on a large scale. Silos are becoming popular.

A large acreage of castor beans was grown in Central Texas last year, with considerable profit to the growers.

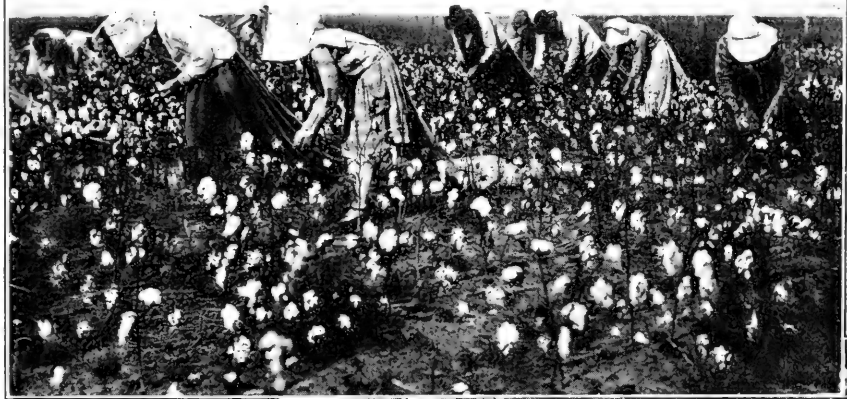
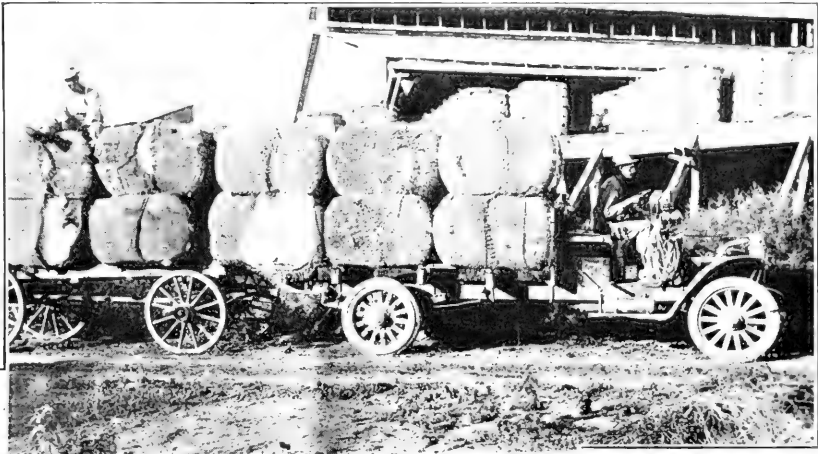
Dairying is one of the most profitable industries in Central Texas, and the herds are being improved annually by the introduction of better breeding stock. There is no greater opportunity to make money than to engage in dairying with a productive herd near some large center.

TEXAS FARM OPPORTUNITIES

Much has been said about cotton, and a great deal more can be said because it is the standard and staple crop of the South and Southwest.

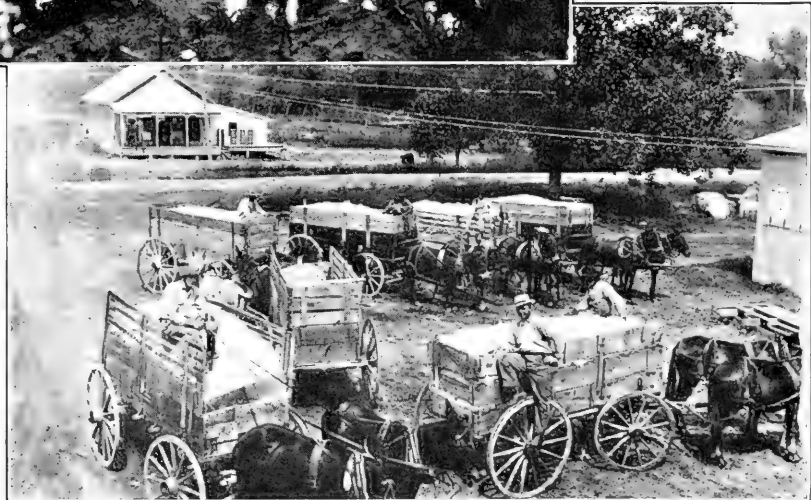
Cotton is a dependable crop and has been grown to the exclusion of food and feed crops until the State almost became a one-crop country. Agricultural agencies have attempted through educational means to show that a one-crop country never flourished

Ten bales of cotton, modern farm truck, Red River County, North Texas



Cotton picking

Cotton waiting to be ginned, Red River County, Texas



or prospered like a diversified country. Results have been that the cotton acreage has been decreased and food and feed stuffs substituted.

Better cultural methods have proven that more cotton could be grown on less acreage, leaving room for pasture and feed crops.

Under proper management and rotation of crops, cotton will not deplete the soil

TEXAS FARM OPPORTUNITIES

any more rapidly from year to year than other crops, but it should be rotated with other crops each year and the strictly cotton farm should be discouraged.

SOYBEANS.

Soy beans, grown in North Texas, have given excellent results, but they have not been grown as extensively as the cowpea and the velvet bean.

Soy beans yield abundantly and are very rich in oil and protein. They make excellent silage, mixed with sorghum or corn, and having a heavier foliage than the cowpea, make more tonnage per acre.

They may be planted in April or May, depending upon the condition of the soil and climatic conditions, and are cultivated like other row crops. Sometimes they are alternated in rows with corn and cut at the same time with the corn and put in the silo, load for load.



Soy Beans, North Texas



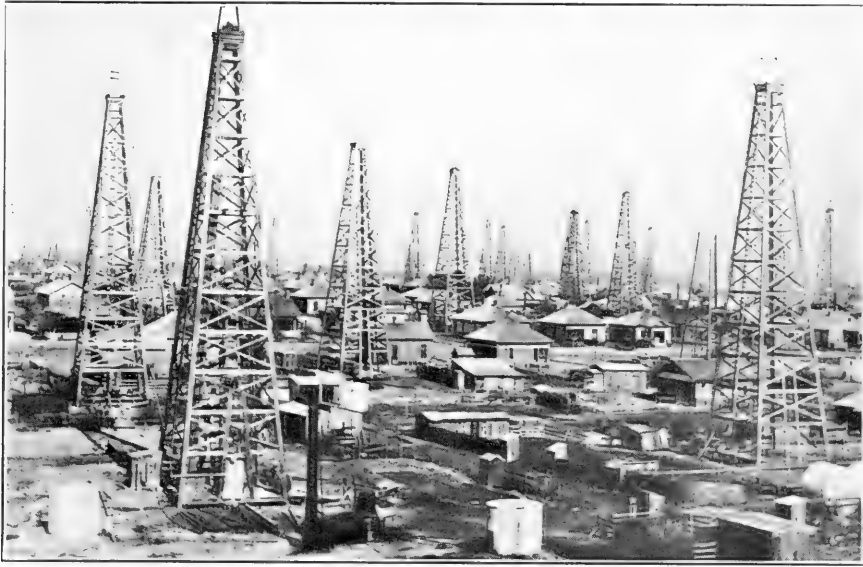
Geese and apiary in North Texas Orchard

BEEES.

Texas, with its blooming plants, each and every month in the year, and especially with the opening of all fruit blossoms in the early spring, and the clovers and wild flowers later, offers ideal conditions for bees and honey-making. Texas is among the leading States in honey production and as to a product of quality is second to none.

The whole State offers, at different times of the year, a great opportunity for such a profitable industry. Many Northern bee men raise their queens in Texas and send them North.

TEXAS FARM OPPORTUNITIES



A Typical Texas Oil Town.

OIL.

In view of the great benefit derived by many farmers in West Texas through the discovery and development of oil, it is thought advisable to give a brief history of it in this booklet. However, Texas, has become such an active leader in oil production that it would require a booklet of its own to do justice to the industry. Further details may be had upon application.

TEXAS OIL FIELDS.

Texas as an oil field sprung into prominence almost overnight some twenty years ago. Development has been carried on ever since that time, but nothing alarming has happened for a number of years until in October, 1917, when a great oil pool was opened up in Central West Texas. Oil men from all over the United States were rapidly attracted to this field and geologists have said that one of the greatest oil fields in the world had been opened. As the old saying, "history repeats itself," in a very short time a small town in West Texas of less than five hundred people sprung into a thriving little city of more than 25,000. Accommodations were inadequate, railroad trackage was not enough to store cars for incoming freight and outgoing oil. Tracks were built, tents erected to take care of the people as best they could, temporarily, and the little village soon took on the appearance of a city.

Soon after this oil was found, another pool was discovered in North Texas and people began to flock to this small place and the same conditions were found here; in fact, this discovery surpassed the first one, because oil was found in large quantities at a much shallower depth. Unusual success followed drilling, as very few dry holes were found; in fact, only about 3 per cent were dry.

The following report from the oil fields shows how quickly development was completed since the Central West Texas field was found in October, 1917, and the North Texas field began large production early in 1918. Oil had been found, however, in small quantities in the North Texas field several years ago. Report April 19, 1919:

North Texas.....	150,350 barrels per day
Central West Texas.....	87,700 barrels per day
South Texas.....	82,480 barrels per day

The more important fields are mentioned elsewhere in this booklet.

:: EAST TEXAS ::



EAST TEXAS lies north of the Gulf Coast region, along the western boundary of Louisiana, extending west for one hundred miles, and north and south for two hundred miles, comprising about 20,000 square miles. The extreme eastern part is known as the "East Texas Timber Belt." It is covered with a heavy growth of long and short leaf pine, which has supplied for many years the lumber mills of Texas and lumber to other parts of the United States. In addition to the pine timber, there are large strips, or extensive forests, of available hardwood timbers; oak, gum, hickory, magnolia and ash.

East Texas has an average annual rainfall of 35 to 50 inches, most of which falls during the growing season. There are no crop failures in East Texas. Practically all crops indigenous to the temperate zone can be grown in East Texas with a minimum of effort.

Some of the earliest settlements in Texas were made in this territory. The absence of timber farther west extended a constant invitation to the farmer to settle upon the fertile black land prairie belt. East Texas remains today as it was in the early settlement of the State, the most inviting division of the State for the farmer of limited means. Much of the timber, which at that time either precluded entirely clearing the land for agricultural purposes, or made the task so burdensome that few farmers were bold enough to undertake it, has been removed by the sawmills. When all of the commercial timber has been removed, leaving the standing stumps, we have what is known as "cut-over lands."

TOPOGRAPHY.

From the Coastal Plains, with their level stretches of prairie land, we enter the great forest, with a gradual elevation until we reach a low range of hills, running in an irregular line from northeast to southwest. Many of these hills are capped with brown Hematite iron ore, which has protected them from erosion. Between these hills are fertile valleys. Much merchantable timber still stands, so that the activities of the territory are divided between agriculture and the sawmill industries.



Peach Orchard. Crop of Cowpeas between Tree Rows

TEXAS FARM OPPORTUNITIES

The principal inducements which the country offers to the farmers are: First, low-priced land, low-priced compared with land values in other agricultural districts of the State; second, the land is partially cleared, as all heavy timber and most of the light timber has been removed; third, abundance of fuel and water, both for domestic and farm purposes; fourth, comparative low cost at which farm buildings can be constructed.

SOILS.

The soils of East Texas, while not very productive in their virgin state, exclusive of the valley soils and prairie glades or plateaus, can be brought to a high state of productiveness by means of a minimum amount of commercial fertilizer in the form of acid phosphate, and by the growth of legumes, with the raising of live stock for the increase and maintenance of the nitrogen supply in the soil. The soils are for the most part sandy or sandy loam. In their unfertilized state they will produce good crops of peanuts, sweet potatoes and sugar cane for syrup; but the yield of even these crops can be increased with net profit by the addition of a small amount of acid phosphate. As a rule, the soils are sufficiently rolling not to need drainage; but in many cases care must be exercised, and terracing may be necessary to prevent washing. The sandy soil, being underlaid by a clay subsoil, insures the conservation of whatever fertilizer may be applied for the use of the plant. When the soils are improved, profitable crops of cotton, corn, Irish potatoes and the spring vegetable crops, especially tomatoes, beans, cabbage, cucumbers and melons, may be grown. The legumes, such as the velvet bean, the several varieties of the cow pea, the soy bean and Japan clover grow luxuriantly, not only replenishing the soil with the necessary nitrogen, but yielding a crop of high value for live stock. The soil and the climate make it possible to grow on certain areas the finest tobacco produced in the United States.

SWEET POTATOES BRING WEALTH.

The sweet potato crop of East Texas is perhaps the most important in some respects. It is being handled commercially on a scale never thought possible before the War. The food value of the sweet potato has long been recognized in the South. It has not been generally introduced into the North because of the difficulty of storing and shipping it without large loss. The storage methods have been perfected along scientific lines and hundreds of thousands of bushels every year are stored in great



Cotton on Sandy Land, East Texas

TEXAS FARM OPPORTUNITIES

warehouses throughout East Texas. Many counties have large storage plants averaging from 25,000 to 50,000 bushels capacity. East Texas is considered the sweet potato section of Texas. Growers last year received \$1.50 per bushel, and the yield per acre was from 150 to 300 bushels. No one crop will make larger returns in East

Texas than the sweet potato. It requires little care, provided the ground has been properly prepared in the first place. The sandy soil is the natural home of the sweet potato, and it manages to yield even under great neglect. In the past effort toward raising sweet potatoes has been directed solely on a small scale. Every farmer has been in the habit of raising just enough sweet potatoes to supply his family needs. A few were also raised for the hogs and cattle. This



Sweet Potatoes, Sandy Land Soil,
East Texas

is all changing. Large acreages are planted because of the storage facilities which make the housing of the crop safe. The storage is necessary, for when the sweet potato crop is first harvested the markets are suddenly glutted. Storage permits supplying the market during winter when prices are highest after the first supply of potatoes has been exhausted. A campaign to introduce the sweet potato into the North is in progress. If the crop is to become generally popular the production will reach millions of bushels annually.



Velvet Beans in Corn Rows, East Texas

TEXAS FARM OPPORTUNITIES

LIVE STOCK RAISING.

The country lends itself particularly to the industry of stock raising. Cattle, sheep, goats and hogs all do well with a minimum amount of care, so that a farmer of limited means may establish a homestead and start with a few head of stock on the open range, and by furnishing a small amount of feed for a limited period of the year,



Black Hulled White Kafir, East Texas



Harvesting Sweet Potatoes, East Texas

can carry his stock over in fine condition. Thus his herds will gradually grow with little care and with little expense.

When East Texas pasture is at its best it will maintain a steer to an acre in good condition. The average grazing strength, however, may be considered to be about three acres to the steer for the whole season. Some seasons the grass is more vigorous, depending upon timely rainfall.

TEXAS FARM OPPORTUNITIES



Spanish Peanuts Cured in Stack, East Texas



Threshing Peanuts, East Texas

EAST TEXAS A DAIRY COUNTRY.

No territory of the Southwest offers greater opportunities for dairying than East Texas with its well-distributed rainfall and its great forage crop production. Experts agree that dairy cattle can be maintained at less expense on the sandy soils of East Texas than elsewhere. First of all, the expense of raising the necessary feed crops is less. Velvet beans and corn, cowpeas and Spanish peanuts for hay of unequalled merit for dairy cows, Japanese sugar cane for silage of high acre production, com-

monly averaging 15 tons an acre, will give the East Texas dairyman an advantage over territories where long winters interfere with pasture and cause high feed bills. The gradual elimination of the cattle fever tick is assured by the passage of effective laws. Better live stock, especially dairy cows, have been introduced during the last few years on many farms. Pure-bred dairy cows on tick-free territory in East Texas are money-makers. Good markets are located not far away and easy transportation at relatively low charge make milk shipments profitable. Creameries will follow in the wake of the dairy cow and the soil itself will be enriched every year by the quantity of stable refuse which a large herd of dairy cows insures.



Japanese Sugar Cane for Silage

PEANUTS A CASH CROP.

More than 2,000,000 acres of peanuts are grown in the South. First of all, the Spanish peanut is one of the greatest stock feeds known. For dairying it is the one perfect feed, when cured nuts and vines together, containing practically a balanced ration. It is above alfalfa for dairy cows, and since it can be grown with little trouble, will, no doubt, become the staple crop of the sandier areas. There are two methods of handling Spanish peanuts. This variety is smaller than the Virginia and Tennessee varieties and more productive. It also contains more oil and has a higher value at the oil mills. The recent price of \$1.25 to \$1.50 a bushel has made the raising of Spanish peanuts so profitable that farmers have given them exceptional care and have harvested them with improved peanut harvesters and separated the nuts from the vines with the use of peanut pickers. These machines are gradually being introduced into East Texas. They simplify the work of harvest. The oil is next to olive oil in commercial value as a table oil. Its uses are manifold, and it is the strongest competitor of cottonseed oil in America.

For a time farmers used to raise Spanish peanuts and let the hogs root them up for feed. This resulted in soft-meated hogs, because the animals obtained too one-sided a diet. There is more oil in the Spanish peanut than in cotton seed. Peanut product factories have been erected in Texas, where the nuts are converted into peanut butter, oil and other commodities. The demand for peanuts has been on the increase for the last four years, and indications are for the largest acreage in the history of the industry.

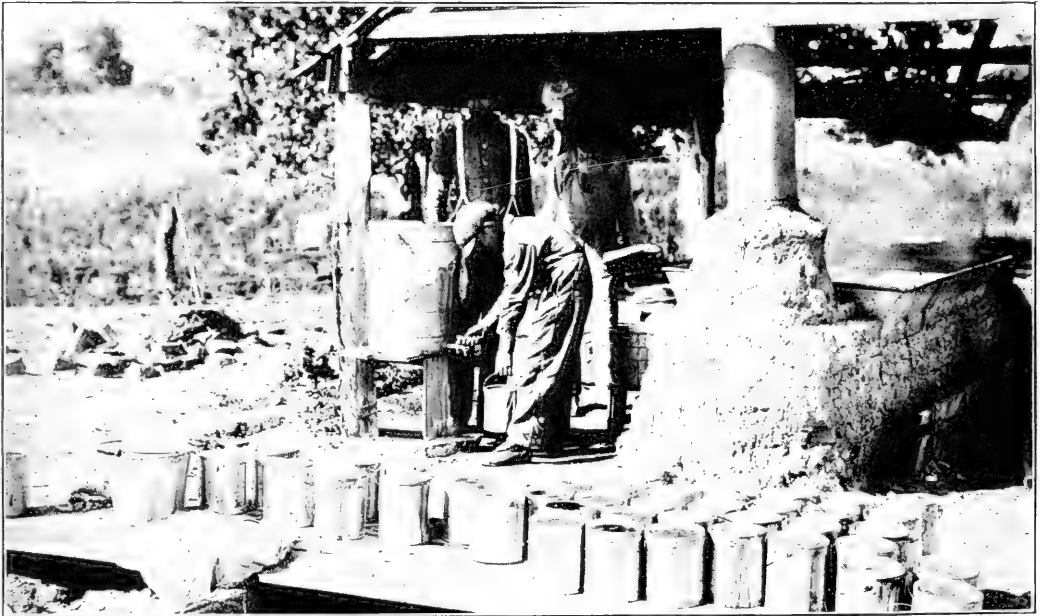
TEXAS FARM OPPORTUNITIES

OTHER OIL-BEARING CROPS.

Soy beans, which are being raised on larger acreage every year in East Texas, are



Ribbon Cane at the Mill, East Texas

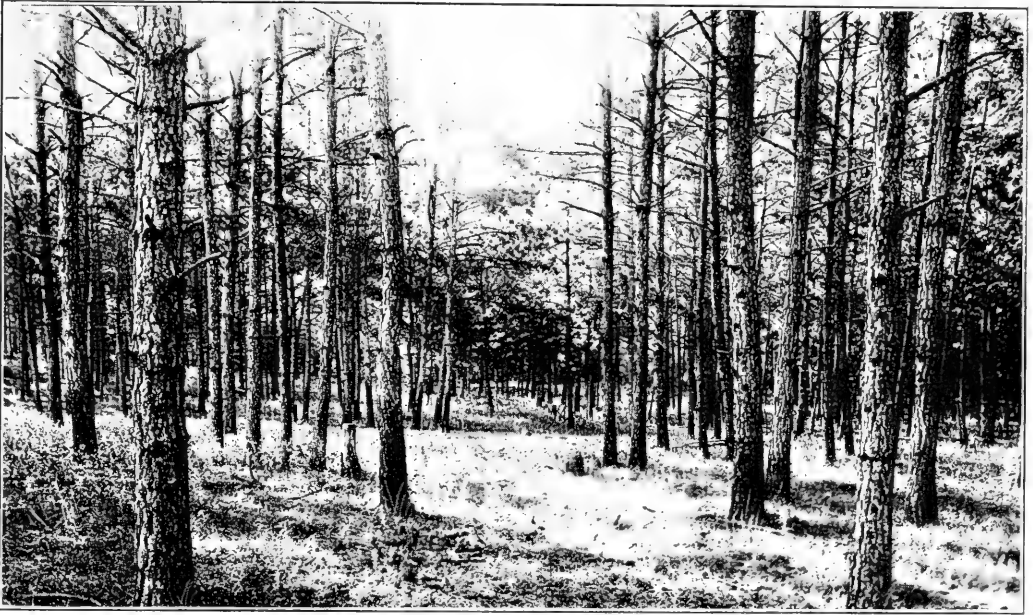


Making Ribbon Cane Syrup, East Texas

the only source of a commercial substitute for linseed oil. The shortage of linseed oil in the past few years has brought the soy bean into favorable notice with the oil millers. It has for some time enjoyed a wide reputation for being one of the most nutritious stock foods known. It requires rich land, however, for maximum yield, and will not

TEXAS FARM OPPORTUNITIES

thrive on the average sandy upland unless fertilized. On adapted soils it will yield profitable commercial crops, both of oil and hay.



Short Leaf Pine Forest, East Texas



Long Leaf Pine Forest, East Texas. Note range for cattle
CORN SURE CROP IN EAST TEXAS.

Many varieties of corn thrive in East Texas, especially where the land has been under rotation and fertilization. The growing season for corn is ideal and it will yield from 25 to 60 bushels, according to care and soil. Several stooling varieties of corn have been grown in East Texas with success. At the last cultivation of the corn cowpeas are dropped in the furrow or are planted in alternate rows.

TEXAS FARM OPPORTUNITIES

Velvet beans are also sometimes dropped in alternate hills with corn. The vines climb over the corn and produce an amazing amount of seed pods and forage, which is considered to be one of the greatest and cheapest sources of protein and fat. Often cattle and hogs, goats and sheep are kept in a field of corn and velvet beans throughout an entire winter without requiring other feed. There is no way in which a cattle raiser can make more money than by letting his stock run in a field of velvet beans and corn.

COWPEAS A COMMERCIAL CROP.

The humble black-eyed pea is one of the chief commercial crops of East Texas in counties suited to its growth. The black-eyed pea is in reality a bean, but long usage has stamped it as a pea. There are many varieties of stock peas, all of which have been standardized, and which yield almost equally well. The total production of East Texas which reaches market is about 500,000 bushels. The black-eyed peas enter into competition with the California crop, and reach market at less expense. The crop sold in 1918 for \$4.50 a bushel through co-operative marketing on the part of the growers. In ordinary years the price is \$1.50 to \$2.00. There are large warehouses in which the peas are stored.

EAST TEXAS FRUITS.

No other division of Texas offers the same opportunities for commercial fruit growing as East Texas. The production of strawberries and tomatoes in commercial quantities is a large industry. The peach orchards of East Texas have long been famous. The ingredients of the light sandy top soil and the heavy subsoil make for uniformly excellent fruit. The famous Mamie Ross and Elberta peaches, and many other varieties are shipped all over the United States from East Texas. In counties where fruit growing is the leading industry there are co-operative marketing associations, which aid the farmer in obtaining a uniform and satisfactory price for his products. Pears are also being grown commercially. Strawberries of a most excellent flavor and widely known for their superior merit are grown on a large scale and shipped throughout the country. Blackberries, dewberries and other small fruits are also commercially grown. The ease with which fruits may be raised is proverbial in East Texas. There is comparative freedom from fruit diseases. With a little care a fruit crop may be counted on almost every year, depending, of course, largely upon the man growing the crop.

East Texas is an ideal country for growing watermelons and cantaloupes. Extensive acreage of this crop is planted every year. Associations for standardizing and inspecting the crop have done much to obtain for the growers a staple price. Car-lot shipments are made to Northern and Eastern markets and throughout Texas and parts of the West.

RIBBON CANE INDUSTRY GROWING.

One of the newest standardized industries of East Texas is that of raising ribbon cane syrup for market. This syrup is made from sugar cane, not the ordinary sorghum. Ribbon cane is a variety of true sugar cane imported originally from the tropics. It flourishes on East Texas sandy soils and produces tremendous crops. The income from an acre of ribbon cane in 1918 was an average of \$300, with exceptional yields of \$500 an acre. The cane is planted in rows, pieces of stalk being dropped and buried in the sand, since it does not seed in the United States. A syrup mill, entailing a small cost for an engine, vats and press, is usually erected near the field and the syrup made on the spot. The time of making syrup is in late November or early December. The product is put up in gallon buckets, and last year sold for an average price of \$1.50 a gallon. The syrup industry is in its infancy. Practically every county of East Texas can raise the ribbon cane. Large syrup mills will be erected eventually and the production should average millions of gallons annually.

COTTON A STANDARD CROP.

The cotton production of East Texas is uniformly high. It is one of the established, oldest farm pursuits of this territory. Better varieties of cotton are being grown

TEXAS FARM OPPORTUNITIES

and greater returns per acre have resulted. Methods of crop rotation and fertilization through plowing under green manure in the form of cowpeas or other legumes, has increased the cotton yield per acre. The average in favorable seasons may be said to be about one-third of a bale an acre, with high yields of a bale and more to an acre on naturally rich or well-fertilized and well-prepared land. Marketing conditions have improved greatly. Farmers, who formerly were compelled to accept the local buyer's price, which usually was based upon grade only instead of staple length, today are profiting by the establishment of cotton classing offices by the United States Department of Agriculture. At these offices cotton is classed according to its staple length. Cotton which is of uniform inch-and-one-sixteenth or inch-and-one-eighth length commands a premium over inch or shorter cotton. Farmers are being educated to know



Type of Successful Sweet Potato Storage Plant in East Texas.

the value of their cotton and are increasing their incomes accordingly. Several stations for classing cotton have been opened throughout East Texas, and more will be opened this year. Cotton production will be revolutionized as a result of this great work. The farmer who rotates his crops and who makes use of legumes to enrich his soil while growing crops, and who plants cotton on his richest soil, will always make money raising cotton, because his cotton will be longer in staple than that of the man who raises cotton on poor soil and without adequate preparation and fertilization.

EAST TEXAS LAND VALUES.

It has been mentioned that land in East Texas can be purchased at a price less than that asked for agricultural land in the more highly developed parts of the State. The variation in price of raw, or unimproved land in East Texas runs from \$5.00 to \$15.00 per acre, and improved land from \$20.00 to \$50.00 an acre. Of course there are a few farms adjacent to towns, highly improved and desirably located, that would bring more money than this, but such farms usually have a sentimental or speculative value. The mineral deposits on some of the East Texas lands enhance their value, and must be considered separate and apart from their agricultural values. There are large deposits of iron ore, and bordering the East Texas belt, as a rule on the western rim of it, there are valuable lignite deposits. Green sand marl occurs in large quantities, which is of local value, but of little commercial importance. There are many deposits of clays, of various grades, some of them suitable for fire clays, others for pottery, and a few for the manufacture of the finer grades of Chinaware.



NORTHWEST TEXAS



ORTHWEST TEXAS lies west of the 100th meridian and embraces that territory known as the Panhandle and adjoining regions to the south and southeast. The climate is bracing and wholesome. The winters are colder than other portions of the State, but the summers are generally mild and pleasant. The elevation, which ranges from 3,000 to 5,000 feet, necessitates a crop system peculiar to semi-arid regions. The rainfall ranges from 18 to 25 inches, and is fairly well distributed in the growing season. For years this region was the

home of great herds of cattle which roamed the plains. Today much of this vast plain has been put into cultivation and is producing crops of kafir, milo, feterita, Sudan grass, peanuts, cotton and corn. A scientifically balanced crop rotation has been put into general practice, and by its use farmers are enabled to raise such crops as may be fed with profit to their live stock. The tendency is to finish beef cattle instead of letting them graze on native pasture and later ship them to territory having grain on which to fatten.

Several prosperous cities have sprung up in this part of the State and there are



Orchard in West Texas

numerous small and attractive towns. The railroad facilities are adequate to the needs of the territory. Good roads are easily constructed of the native materials which abound.

The principal industry of the Panhandle is the raising of beef cattle. Millions of steers are annually sent to slaughter from this region. There are still millions of acres of range on which the steers roam a large part of the year. The large ranchers as well as the small farmers who handle live stock, make it a practice to grow their own feed. The principal crops are the grain sorghums, referred to above. Milo easily leads in popularity and extent of acreage. Milo and feterita yield fair crops in times

TEXAS FARM OPPORTUNITIES

of deficient rainfall. Kafir requires more rainfall to mature. These hardy grains are grown in rows exactly as corn is raised. They require the same cultivation and are harvested about the same time. They will mature their crops in about four months or less, depending upon the varieties planted.

STORE UP MOISTURE IN SOIL.

Farming in Northwest Texas is followed by thousands of successful men, who have gone into that country impelled by the love of climate and the spell of the immense plains. Land is comparatively reasonable in price. Scientific methods of raising farm crops have overcome many of the disadvantages of a semi-arid region. Fall and winter plowing of heavier lands and listing of the lighter soils will store up moisture which may fall during the winter in the form of rain and snow. The plan is to plow the land across the direction of the prevailing winds. This catches all the snow, which in many cases will prove of inestimable value in putting moisture in the furrows when it melts. Heavier soils are usually plowed more deeply than the lighter soils, which will blow if plowed too deep.

One of the most successful methods of farming in semi-arid territory is to plow under a crop of legumes or some other binding material which will hold the soil together, prevent blowing and store humus and fertility. If this is done every year the land becomes more easily manageable and more productive. Cultivation of crops



Feterita and Kafir, West Texas

should be shallow and frequent to keep a dust mulch on the ground and prevent evaporation of moisture. Even in times of scant rainfall a dust mulch will often make a dependable crop of the grain sorghums. The fundamental idea of farming in the Panhandle is to raise forage crops to insure feed for cattle and work stock. For this purpose grain sorghums, adapted by long usage and selection, should be planted.

CHEAP FEED ON EVERY FARM.

The farmer who raises sufficient feed for his live stock and food for his family will make a success no matter where he may live. The farmer who raises a crop only to sell it and with the money obtained buys feed for his live stock and food for his table is not making money, no matter how rich his soil might be or how desirable may be the climate where he lives. That cheap feed may be raised with comparative security in the Panhandle and Northwest Texas in general is an assured fact in average years. Fortunes have been made feeding crops of milo and kafir to hogs and cattle. The yield ordinarily is about one ton of milo heads an acre. In seasons of exceptional rainfall the yield may be two tons an acre. The heads are usually har-



Uniform Stand of Kafir, West Texas

vested with a wagon to which a head-cutter is attached or with a special harvesting machine. Only the heads of the grain are usually hauled to the barn. The cattle and hogs are turned into the fields after the grain crops have been removed. Sometimes the whole plants of kafir or milo are harvested together and piled in long ricks for winter use. The stover makes excellent roughage.

Besides the grain sorghums for concentrated live stock feeds, there are several excellent forage plants which are growing in favor throughout the Panhandle and West Texas. Red-top sorghum is one of the most reliable forage crops that can be grown with 20 inches of rainfall. It will yield three to six tons of forage an acre and is of high feeding value to cattle and work stock. Experiments with related crops are being conducted at the several State Experiment Stations under the direction of the Texas Agricultural and Mechanical College.

SUDAN GRASS RELIABLE CROP.

One of the greatest forage crops ever introduced into the Panhandle and North-west Texas is Sudan grass. This plant, which was introduced from the Sudan Desert of North Africa by Texas Experiment Station, has adapted itself to Western semi-arid conditions and will make dependable yields with little rain. It is planted chiefly as a hay, its stems being small and readily eaten by stock. Sudan grass belongs to the non-saccharine sorghum family and has a certain sugar content which is acceptable to cattle and horses. The farmer on the semi-arid plains should raise at least ten acres of Sudan grass as a hay crop. The stand can be mowed a second time, and sometimes makes three tons of hay an acre. It will grow till frost even in dry weather. As a roughage it cannot be excelled for Western feeding under average conditions. Sudan grass may be sown broad cast, but the highest yields are obtained from row planting and cultivation. The seed may be obtained at reasonable price.

GARDEN FOR PANHANDLE FARMER.

The home garden is one of the important factors in the success of the farmer of the semi-arid regions. It is made possible by a windmill on the farm, from which water is pumped to the garden at such times as crops may need water. Water is struck as a rule at a depth of 50 to 100 feet in sufficient quantity for home and garden use. Gasoline pumping plants are often installed to lift water from deeper wells. In



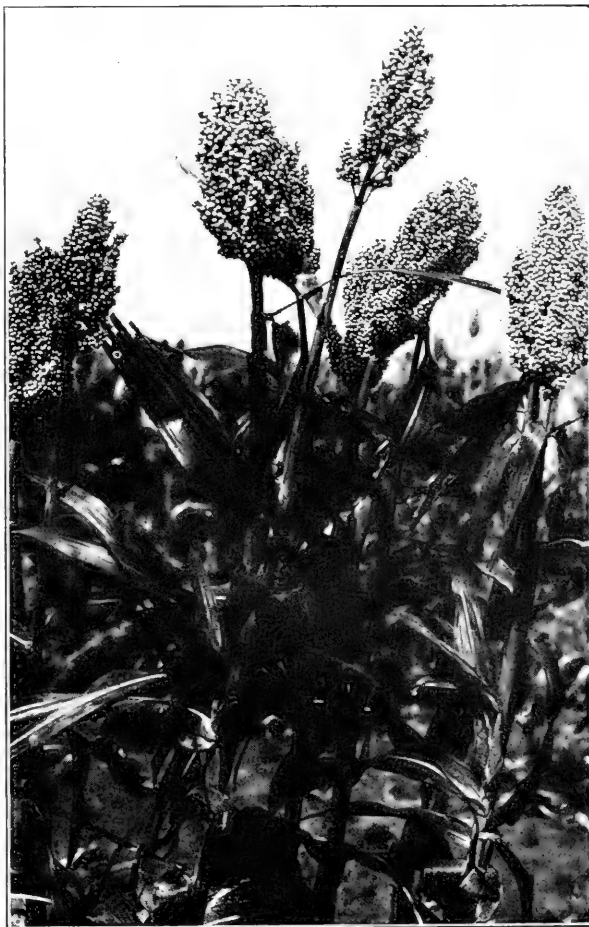
Red-Top Sorghum, Irrigated District, West Texas

this case the water can be piped through the house and to the barns and drinking troughs for the benefit of the family and live stock.

Many plains farmers have gardens which are green throughout the summer and produce an abundance of vegetables. Under irrigation it is possible to plant a repetition of crops a season and have fresh truck on the table for practically eight months a year. The garden idea may be enlarged and the irrigation may be extended to field crops in cases where water in sufficient quantities is obtained cheaply. Where a creek or stream may be dammed and the waters impounded, irrigation on a larger scale is entirely practicable; also in cases where shallow wells permit lifting the water not to exceed forty or fifty feet. An orchard may also be irrigated from a small pumping plant and well, thus adding to the variety of diet on the family table and to the comforts of a farm. Trees should be planted and watered regularly. They will furnish shade and make the surroundings more attractive.

THE SOUTH PLAINS COUNTRY.

The South Plains, which lie immediately south of the Panhandle proper, is a rapidly developing



West Texas Crop of Milo

TEXAS FARM OPPORTUNITIES

region with a progressive population and flourishing towns and cities. The average elevation is between 3,000 and 4,000 feet, resulting in a delightful summer and winter climate. This region used to be a cattle range and is undergoing a transformation into an agricultural country of importance. The same crops which flourish in the Panhandle will thrive on the South Plains. The growing season is some two weeks longer.

Irrigation has been developed to a considerable extent on the South Plains, both



Branding Cattle on Plains, West Texas.



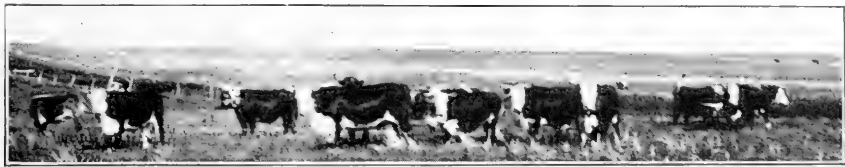
Feeding Baby Herefords, West Texas

from impounded waters and from shallow wells. Thousands of acres receive water as they need it, supplementing the rainfall when it is inadequate. Feed crops, such as the kafirs and cane, are mostly grown.

One of the important agricultural features in both Panhandle and South Plains country are the pit silos, in which feed crops are stored for winter feeding of cattle and work stock. These silos differ from the regular over-ground silo, consisting of holes dug in the ground to a depth of ten to thirty feet and from ten to twenty feet in diameter. A pit silo is the most economical of all methods of feed storage. It can be dug in spare time at a cost of not to exceed \$10 to \$25 for a silo of 60 to 80 tons. A concrete collar around the top prevents the silo from caving. The walls are plastered with a thin layer of concrete. In regions where there is no underground seepage of water the pit silo is an excellent institution. It cuts the feed bill

down and saves the entire crop, instead of merely the grain and some of the fodder. It increases the milk flow one-half. It cuts the cost of beef production from 3 to 4 cents a pound, say practical feeders who have tried silos. The pit silo is the one institution which has added safety to dry-land farming. There has always been too much waste of feed. The silo prevents this by utilizing the entire crop. A farmer who has 100 head of cattle to feed through a winter should have a silo of 200 to 250 tons, depending upon the length of winter, or several silos of 60 tons.

TEXAS FARM OPPORTUNITIES



SOUTHWEST TEXAS



SOUTHWEST TEXAS and the extreme Western part of the State, or the Trans-Pecos region, are given over entirely to cattle raising, but the sheep and Angora goat industries, in certain districts, are even more important than the cattle industry. A considerable number of horses and mules are raised, mainly on the range without feed, but in a few cases these are better taken care of, more attention being bestowed on their breeding, as well as their subsequent care and development. The increased price of wool and mohair, to say nothing of the high cost of mutton, has made the sheep and goat industries profitable.

The lower stretches of the country consist of broad, high hills, alternating with wide stretches of table lands, covered with a scrubby growth of mesquite trees and a



Angora Goats Drinking at Troughs

wide variety of thorny underbrush. When the rains are abundant, or well distributed, the grazing is excellent and the financial returns from the stock ranches highly satisfactory. During years of scant rainfall, with a diminished grass supply, live stock may be forced to browse for a living upon coarse grass, or underbrush that carries little nutriment. If the winter happens to be severe there is great loss on the range. If there have been good rains elsewhere in the State, or in the adjoining States of New Mexico and Oklahoma, cattle are frequently shipped in trainloads to pastures; some of them later to be sent on to market, and others to be returned to the ranches.

In the Trans-Pecos region, comprising about 26,000 square miles, the character of the country is still more elevated and decidedly more broken than we find it along the lower

TEXAS FARM OPPORTUNITIES

Short-horn Cattle.



White Wyandottes, Southwest Texas.

Rio Grande. It is in this Trans-Pecos country that nearly all of the mountain ranges of the State occur. The elevation varies from 3,000 to 9,600 feet. The rainfall averages not more than 15 inches a year, and this is distributed very irregularly. The precipitous, rugged mountains, however, are connected by wide, smooth, in-

termountain plains, formed by the erosion and wash from the adjacent mountains. Here we find bountiful grass with even a small amount of rain. The dryness of the climate, together with the elevation of the country, renders an exceedingly exhilarating atmosphere. While the winters in the Trans-Pecos region are sometimes severe, they are comparatively mild along the lower reaches of the Rio Grande in Southwest Texas, the great percentage of warm sunshiny days, characteristic of this entire part of the State, contradicting and counteracting the reading of a low thermometer.

Because of the limited rainfall and the consequent number of acres necessary to support an animal on the range, the ranches are large. Indeed they could not maintain themselves unless they were large. They vary from 8,000 or 10,000 acres up to 200,000 or 300,000 acres. Very frequently the Texas ranchmen will own other ranches in New Mexico and Oklahoma, and ship live stock from one to the other as the conditions may demand or justify.

IRRIGATED LANDS.

Agriculture proper is not attempted anywhere in this territory, except under a system of irrigation. Subsurface water, as a rule, is not only too deep, but not of such quality to justify irrigation from wells. There are, however, some exceptions to this generalization. The Toyah Valley, at the foot of the Davis Mountains, is an important belt of irrigated land. At various places along the Pecos River, there are splendid farms under irrigation. In the Fort Stockton country considerable development has taken place by irrigation. In the Del Rio country irrigation is practiced to a considerable extent, but it is below El Paso, in the Rio Grande Valley, that we find a greater agricultural development as a result of irrigation, than anywhere else in the Trans-Pecos country. Wherever water can be applied alfalfa grows luxuriantly, and is the principal crop.

TEXAS FARM OPPORTUNITIES



Sheep on Southwest Plains, Texas

FRUIT PRODUCTION.

The valleys, intervening between the high mountains, when water can be supplied, produce apples of the very best quality. In like manner the territory is characteristic for the quality of peaches, pears, apricots and California grapes, which are produced under irrigation. It is possible to materially increase the land in cultivation by this system of farming. In other words, the practical supply of water over the territory has not all been appropriated.

MINERALS.

The geological complexity of the Trans-Pecos region, with its highly folded strata, faulted and eroded, marked in some cases by volcanic action, has been favorable to the formation of metallic minerals. Silver, copper, lead, zinc and quicksilver occur in these mountain ranges, but only the silver and quicksilver have been mined in appreciable quantities. Scarcity of fuel and water, together with the scarcity of skilled labor, as well as the cost of transportation, have all contributed to the neglect of the development of the mineral resources of the country.

LIMESTONE SOILS ABOUND.

Hard limestone abounds in Northwest Texas. It is famous as road surfacing material and is shipped to all parts of the State and to other States. The limestone quarries employ thousands of men. There are large deposits of lime, which have been of inestimable value to growers of crops, depending upon limestone, such as alfalfa and other legumes. Lime is a neutralizer of acidity and will improve soils when applied scientifically. Building stone of good quality is found in many counties and is in demand.

Lime kilns burn the lime and employ many hands. Limestone is used for railroad ballast also. The by-product is shipped for use as soil neutralizer and can be had at comparatively reasonable rates. Farmers should avail themselves of an opportunity to use limestone on their land when needed and make them more productive. A soil analysis will tell whether lands are sour, as is the case in many counties where lime does not exist.

Fruit

Shipping

Cattle

THE GULF COAST COUNTRY



THIS country is known geologically as the Coastal Plain of Texas. It may be said to extend inland from the Gulf for a distance of fifty to one hundred miles, following the contour of the Gulf, and gradually increasing in altitude and ruggedness toward the interior. Geographically and geologically it is a unit formation, having been slowly, but gradually reclaimed from the sea. It extends from the southwestern border of Louisiana to the Rio Grande plain, on the border of Mexico.

For the most part it is prairie land, intersected by all of the important rivers of Texas as they empty into the Gulf. Beginning on the east and going west, the Sabine, Neches, Trinity, San Jacinto, Brazos, San Bernard, Colorado, Lavaca, Navi-dad, Garcitas, Guadalupe, San Antonio, Mission, Aransas, Nueces, and, finally, on the western border, the Rio Grande, traverse this Coastal Plain. The valleys of these rivers, with those of numerous smaller streams, are exceedingly fertile, but, as a rule, subject to periodical overflows or inundations. However, splendid farms are located in these valleys above the line of overflow, or are protected by levees. Irrigation is common in the valleys of the Guadalupe, San Antonio, Nueces, and notably in that of the Rio Grande. The Gulf Coast country, while constituted mainly of prairie land, is well supplied with wood and timber ordinarily used for farm purposes. Artesian water may be had throughout the territory at depths ranging from 200 to 800 feet. Good drinking water can usually be obtained in shallow wells, 20 to 30 feet deep, although as we go west the depth at which this water may be obtained materially increases.

CLIMATE.

Is pleasant in winter; so much so that the climate is sub-tropical in the extreme southern portion. The minimum temperature in any part of the territory rarely goes below 20 degrees.



Corn Yielding 90 Bushels an Acre, Irrigated Land, Rio Grande Valley

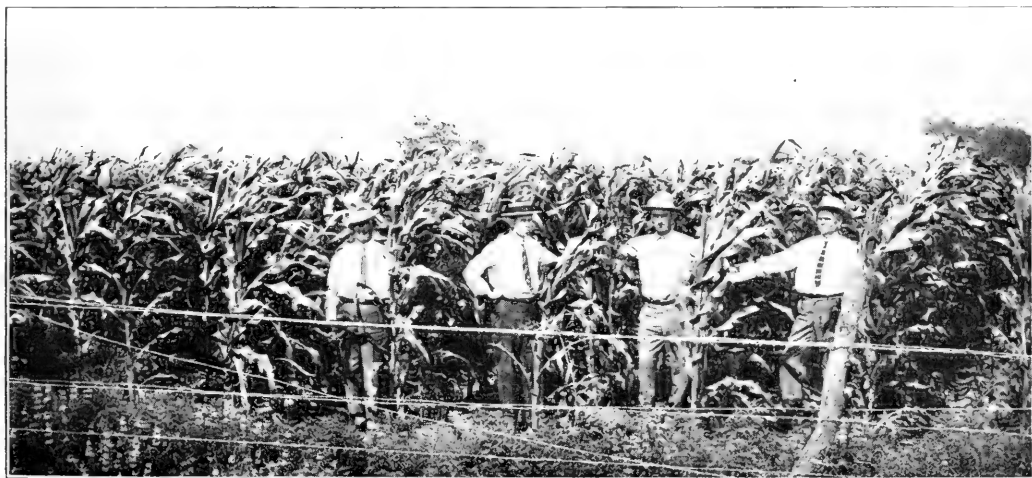
TEXAS FARM OPPORTUNITIES

These cool periods are of very short duration, lasting usually from twenty-four to forty-eight hours. It might be supposed that in a latitude as far south as the Gulf Coast region of Texas the summers would be very disagreeable on account of the heat. As a matter of fact, this is not entirely true. The summer climate is to some extent trying, not because of the degree of heat, but because of its continuation. The continuous Gulf breeze not only mitigates the heat, but insures cool nights, with



Sudan Grass, Gulf Coast Country

refreshing sleep and rest, throughout the summer. The rainfall varies from fifty-five inches on the east westward to the Rio Grande plains, where it is about twenty-five inches. The distribution of this rainfall in the western drier region of the territory is subject to wide variation. If the precipitation were properly distributed, the average annual amount would be sufficient for the ordinary farm crops adapted to the climate.



Corn in Rio Grande Valley

THE SOILS.

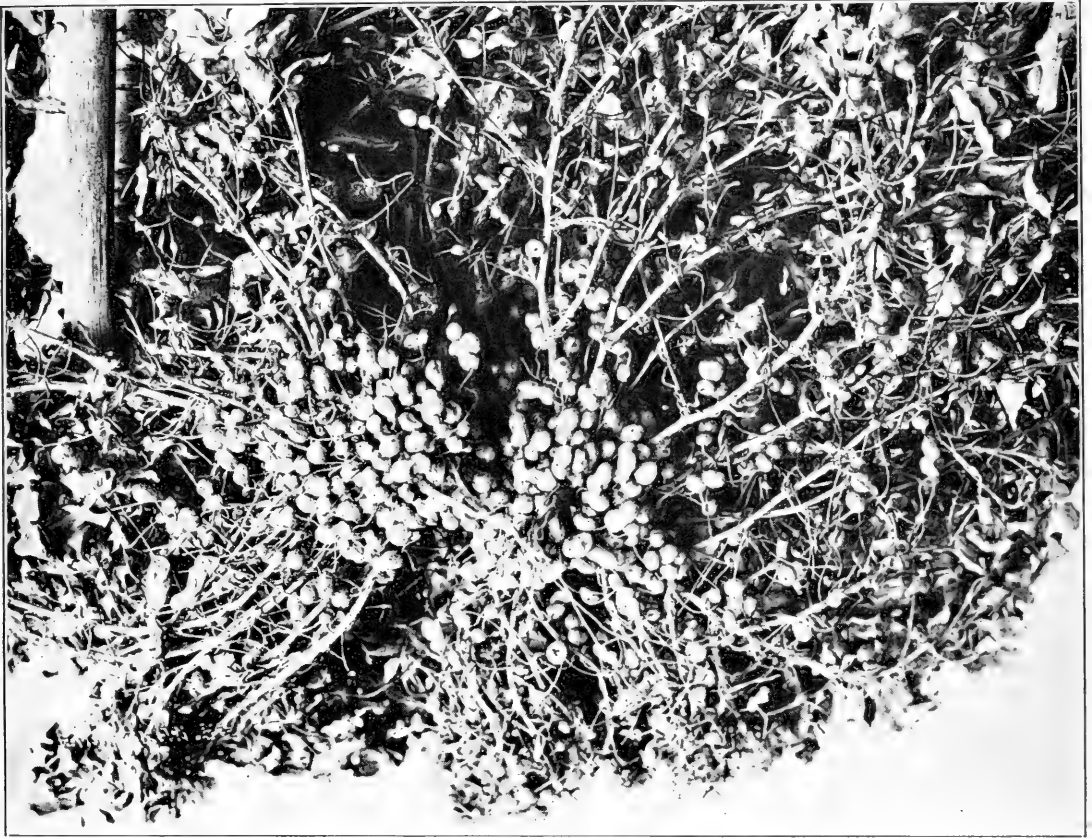
Soils for the most part consist of clays or clay loams. As a rule they are fertile, when properly drained, but, except for the rice crop, it usually requires one season to bring these soils into proper mechanical condition and tilth. The country is so nearly level that unless one is located adjacent to some stream, the valley of which will provide for drainage, it is necessary for farmers to co-operate in the matter of draining their farm lands. This has been done by the organization of what are known as Independent Drainage Districts. These districts are provided for by the Texas statutes, and the Attorney General of the State authorizes the issue of bonds. When these bonds are sold on long time, thirty to forty years, a small annual tax is imposed against the land involved, for the protection of the bonds.



Field Broom Corn, Lower Rio Grande Valley

CROPS.

The great rice belt of the State is confined to the southeastern part of the Gulf Coast country. The rice belt extends from the Louisiana line west for one hundred and twenty-five miles; the acreage of the crop gradually diminishes from east to west. Rice is the principal money crop in the territory, to which it is especially adapted. Texas, with two adjoining States, produces 90 per cent of the rice produced in this country. Considerable cotton, corn and hay are also produced. The rice crop is displaced by the cotton crop, according to the changing amount of rainfall, as the Mid-Coast country of the Coastal Plains is reached. In this territory the live stock industry, especially cattle raising, increases rather rapidly. The number of farms multiply and decrease in size; while rural conditions are also better, because the country is more thickly settled. The poultry industry is prosperous and greatly on the increase. The Mid-Coast country of the Coastal Plains, extending as far south as the Nueces River



Peanuts Grown in Gulf Coast Country

Valley and its immediate territory, is admirably adapted to the production of cotton, corn, the grain sorghums and hay grasses, both those indigenous to the prairie and those introduced. The land in this territory needs less drainage. The soil is deeper and richer, consisting for the most part of clay or clay loams, black in character, sticky and tenacious when wet. The Lower Coast country of the Coastal Plains is to some extent a continuation of the same type of soil, and the same climatic conditions that we find in the Mid-Coast country; but further west and south, toward the Mexican border, farming gives way almost entirely to cattle ranching, until we reach the irrigated district of the Rio Grande Valley.

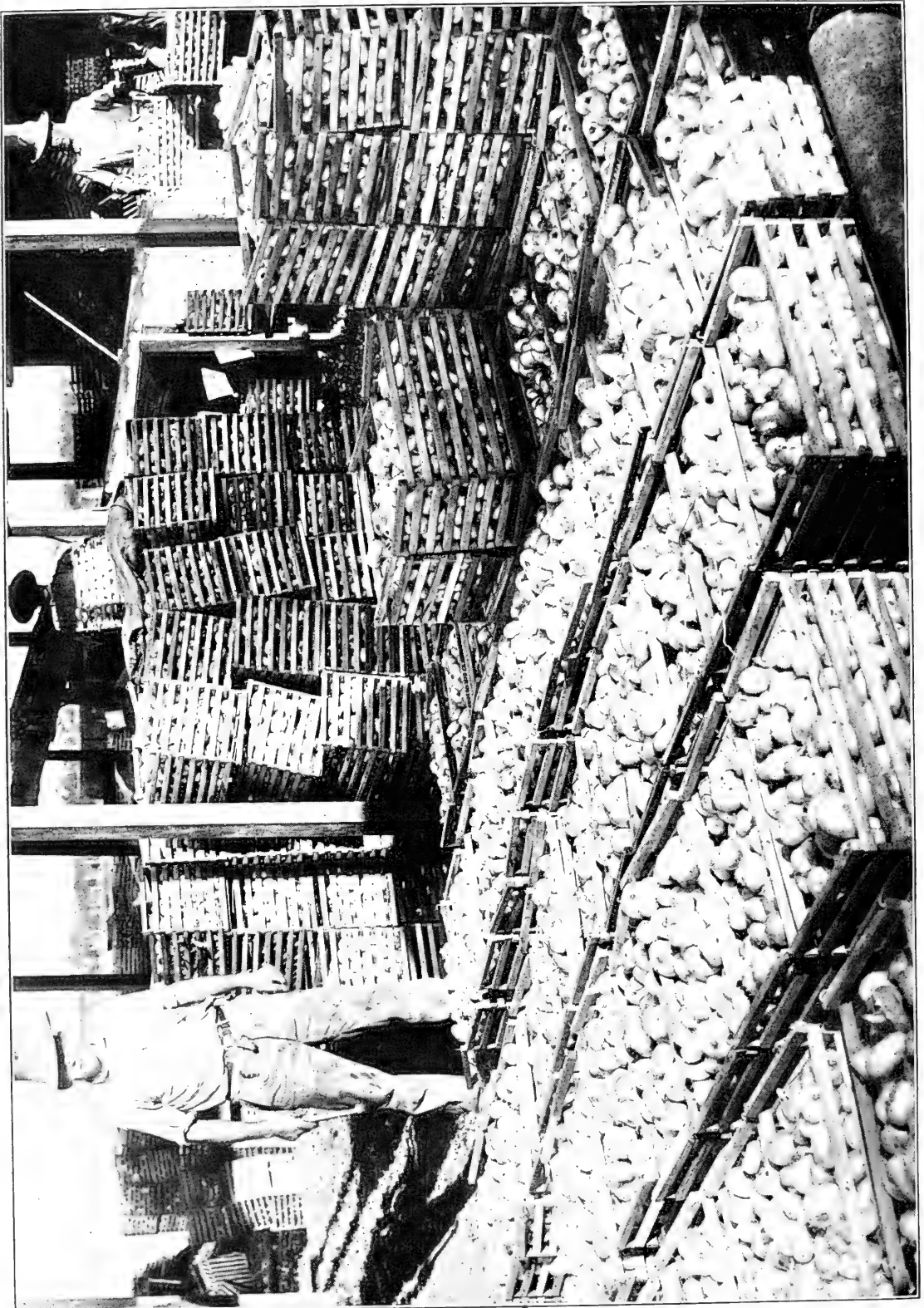
RIO GRANDE VALLEY.

In this valley a large amount of land has been reclaimed by irrigation. The soil is a rich alluvial deposit. The water is obtained from the Rio Grande by successive pumping plants extending from the coast up the river for a distance of seventy-five miles. The canals of these plants have been constructed in many instances without reference to cost; providing permanent and efficient systems for supplying water to the land. The pumping capacity of the best plants comprise the latest and most improved machinery, with a capacity of as much as 300,000 gallons a minute. The total land under irrigation in the valley approximates 150,000 acres. Because of climatic conditions and the fertility of the soil, winter truck farming, in addition to the staple crops of summer and live stock raising, has been developed to a high degree.

SUPERIOR CITRUS FRUITS.

The citrus fruit belt of the State is in this valley. Grape fruit, oranges, lemons and grapes are capable of being grown as successfully as in California or Florida. The

TEXAS FARM OPPORTUNITIES



Onion Packing Shed, Irrigated Onion District, Rio Grande Valley, Southwest Texas

TEXAS FARM OPPORTUNITIES

flavor of the Rio Grande grape fruit is superior. The markets of the country are always eager to get Rio Grande Valley products. Vegetables and citrus fruits reach Northern markets at times when these are not available from other districts, and bring top prices.

LAND VALUE.

There is a wide variation in the price of land comprising the Gulf Coast region. In the Rio Grande Valley the irrigated land is sold for \$100 to \$300 an acre. In the eastern



Sorting Cantaloupes for Shipment



Grape Fruit, Lower Rio Grande, Gulf Coast Country, Texas

TEXAS FARM OPPORTUNITIES

part of the valley the price varies from \$15 to \$50 an acre, depending upon improvements and location. In the Mid-Coast country the value ranges from \$25 to \$100 an acre. This land, however, is not adapted to farm purposes, but is devoted to stock raising.

Enough has been said to indicate that the staple money crops of this territory consist of rice, cotton, corn, hay and broom corn. Rice and cotton are the principal crops.



Orange Grove, Lower Gulf Coast Country, Texas.

In some localities sugar cane is cultivated for the manufacture of sugar, but, except in the Rio Grande Valley, the cane crop is not regarded as entirely safe.

Throughout the territory truck crops are raised to a considerable extent, not only for the local market, but in many instances for shipment to other markets.

SMALL FRUITS.

The small fruits, strawberries, blackberries and dewberries, especially in the rain belt portion of the Gulf Coast territory, succeed remarkably well. In some localities, the culture and shipment of the strawberry crop forms an important industry. Figs are highly successful, and the Le Conte pear, used only for cooking and preserving, succeeds well in the rain belt of the territory.

Watermelons and cantaloupes are grown on a large scale in the Rio Grande Valley and Gulf Coast country. Often the income from an acre is \$300. Trainloads of melons are shipped to all parts of the United States. Organizations to grow melons have been perfected and co-operative methods enable the producer to obtain fancy prices. The quality of these melons is generally considered to be unsurpassed.

Pecans are indigenous to most of the Gulf Coast region, and in some localities improved varieties are being



A Bunch of Oranges as they appear on the Tree, Gulf Coast Country, Texas

TEXAS FARM OPPORTUNITIES

cultivated. The region is too far south for apples, and only certain varieties of peaches are successful. These include the South Chinese and Honey, or Spanish varieties, which may be grown for home use, but which are not well adapted to shipment.



Threshing Rice, Gulf Coast Country

INDUSTRIES.

The lumber interests, while confined more particularly to East Texas, and will be later discussed, have contributed very largely to the upbuilding and support of the Gulf Coast region.



Turning on Water. Irrigation in Lower Rio Grande Valley

The cattle interest, while being displaced to some extent by farms, is still a very important source of wealth to the Gulf Coast country. It comprises several of the largest and most successful ranches in the State.

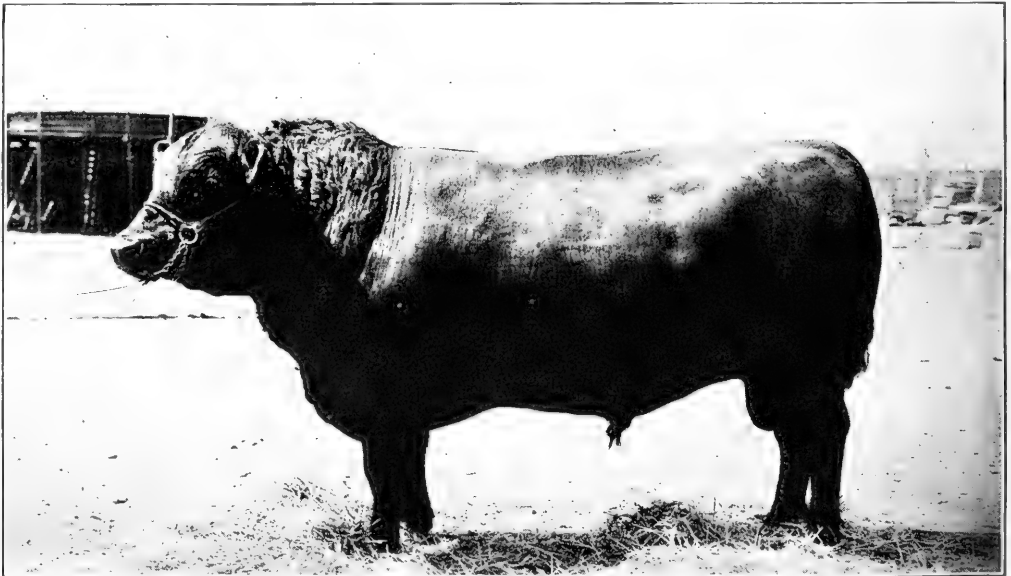
TEXAS FARM OPPORTUNITIES

The dairy industry, while not fully developed, is receiving more and more attention, because the country seems admirably adapted to it; especially the Mid-Coast and Lower Coast divisions of the Gulf Coast territory. With the mild winters and sufficient rainfall, as a rule, to produce good pastures, with the by-products of the



Hereford Pure-Breds, Gulf Coast Country.

rice mills and the cotton seed mills as a basis for concentrates, the region is particularly inviting to the dairy industry; and its gradual, but permanent, development is anticipated. The largest herd of registered Jerseys in the United States, supporting



Aberdeen-Angus Bull, Gulf Coast Plains

the largest dairy in the State, is within this territory. In addition to this, the best selected herd as to individuals, and the second largest herd of Jerseys in the State, is to be found in this territory. Within the territory are located three or four ranches

TEXAS FARM OPPORTUNITIES

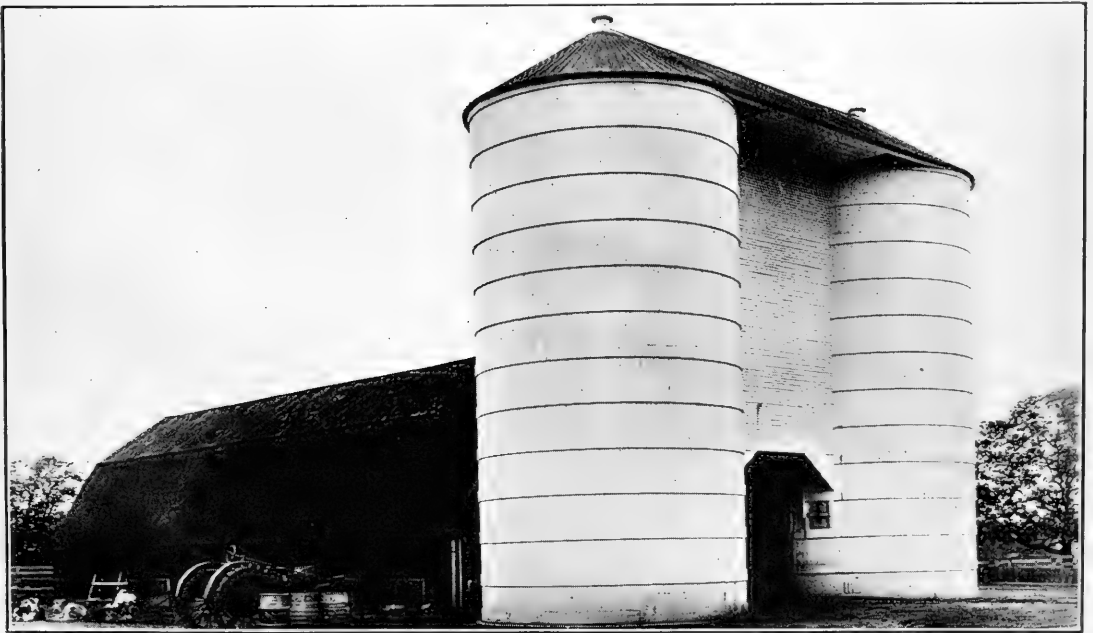
that make a specialty of raising Brahmin cattle. The foundation stock of these cattle was imported from India, and the ranches now supply breeding stock to the other Gulf and South Atlantic States, and in addition make heavy shipments to Cuba.

Hardwood timbers, especially the live oak, of the Brazos and San Bernard Valleys, have been in great demand for ship-building purposes since America's entrance into the European war. It is reliably stated that for certain parts of the ship the live oak timber is not equaled by any other. Several sawmills, devoting themselves exclusively to the production of ship timbers are located in this region.

The rice mills and the oil mills, some of which have connecting fertilizer factories, devoted not only to crushing cotton seed, but also to crushing peanuts, are important industries. Several ship-building plants are also supported within the territory.

MILITARY CAMPS.

Eighteen military camps were established in Texas at the beginning of the war. This is the largest number in any State. No stronger endorsement could be given of the excellent climatic conditions of Texas than that of the War Department in selecting Texas as training quarters for more than half a million men. The health of the soldiers throughout the State was satisfactory. Besides these camps there are eight per-



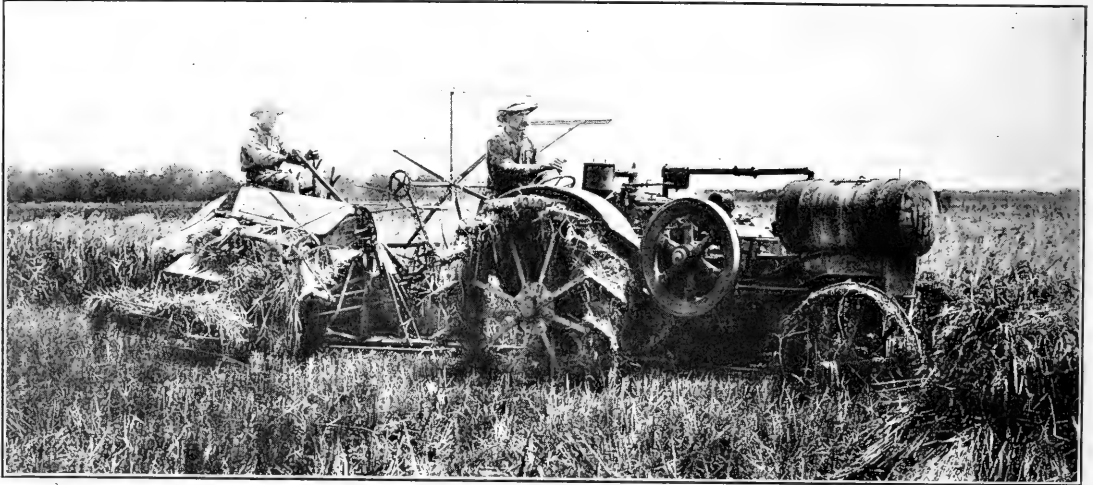
Silos at A. & M. College.

manent forts in the State. In several instances leases were renewed on aviation camps in Texas on account of the excellent records made by the men trained here. Several of these aviation camps have been designated as permanent camps to be used in furthering aviation training. The parents and relatives of the soldiers from the North who visited these camps during the winter expressed themselves as highly pleased with the delightful and healthful climate, and many families have later moved to Texas to make their permanent home here.

TEXAS FARM OPPORTUNITIES

RICE.

Texas is one of the leading States in the rice industry. The Rio Grande Valley and the Gulf Coast country are well adapted to the raising of this cereal. The area covered is equal to the State of Indiana, the quality is superior and commands high prices. The section of Texas devoted to this industry is so well supplied with water



Harvesting Rice.

from rivers, streams and artesian wells that a bountiful yield is almost assured. Those unfamiliar with the characteristics of the plant would undoubtedly be surprised to see it growing. The fields must be level, must be flooded with water—after the plants are about eight inches high—and remain on the land for a period of from seventy to ninety days, in order to successfully produce a good yield. The fields are then drained and become dry in about two weeks, when the rice is harvested. It is thrashed in about the same manner as wheat and usually sold by the barrel.

Agriculturists from the United States Department of Agriculture have said that Texas has the best soil on earth for the raising of rice.



Heading Grain in Texas.

TEXAS FARM OPPORTUNITIES

PECANS.

In late years the pecan industry has made rapid strides; "industry" is used because raising pecans really has become a great source of income to many people. Texas abounds in native pecan trees, which grow in many different parts of the State. They are peculiarly adapted to a well-drained soil and a soil having a deep, porous sub-soil, which enables the roots to reach water. Therefore pecan groves are found along streams and in valleys which have rich soil and are at all times well supplied with moisture.

The native pecan varies in size and in most cases has a very rich meat. To the inhabitants of Texas the pecan is as much a staple nut as the hickory nut to the Northern man. In recent years much has been done to improve the native trees, the result being a much richer and larger nut. This improved pecan has created quite a demand for the nut in northern markets and many carloads have been shipped from



Hereford Yearlings Corralled for Branding

the State to northern trade. In 1918 as high as \$1.00 a pound was paid in small quantities for the thin-shelled variety and the native pecan sold for an average price of 50 cents a pound.

MAGNOLIA FIGS IN TEXAS.

The origin of the Magnolia Fig is not positively known, but it is said that a gentleman who ordered Magnolia trees received a fig tree by mistake and gave it the name of Magnolia. Whatever the source, the fig has become a very valuable fruit in Texas and has proven a revenue producer, as well as a delicious fruit.

The fig is peculiarly adapted to the Gulf Coast country, but is well distributed through the black land belt and much of the sandy section of East Texas. Fig culture, as well as all branches of agriculture, requires a great deal of intelligence. Trees are propagated from cuttings and grow very rapidly. Cuttings may be set in

TEXAS FARM OPPORTUNITIES

the winter time and transplanted the following spring, and fruit gathered the following fall. However, this is not the best practice, as the young trees are apt to be injured. The fig does not blossom like other fruit trees, but the fruit appears above the base of the leaf in the shape of a tiny bud and gradually grows into the full, ripe fruit. Figs start ripening on the lower leaves early in June and continue growing and ripening fruit until late in the fall. The long growing season of Texas makes fig growing profitable. Fig orchards, however, require just the right kind of cultivation and pruning. Cultivation must be done early in the spring and continue throughout the summer. Orchards after once being well plowed, occasional thorough disking and harrowing is all that is necessary the rest of the year.

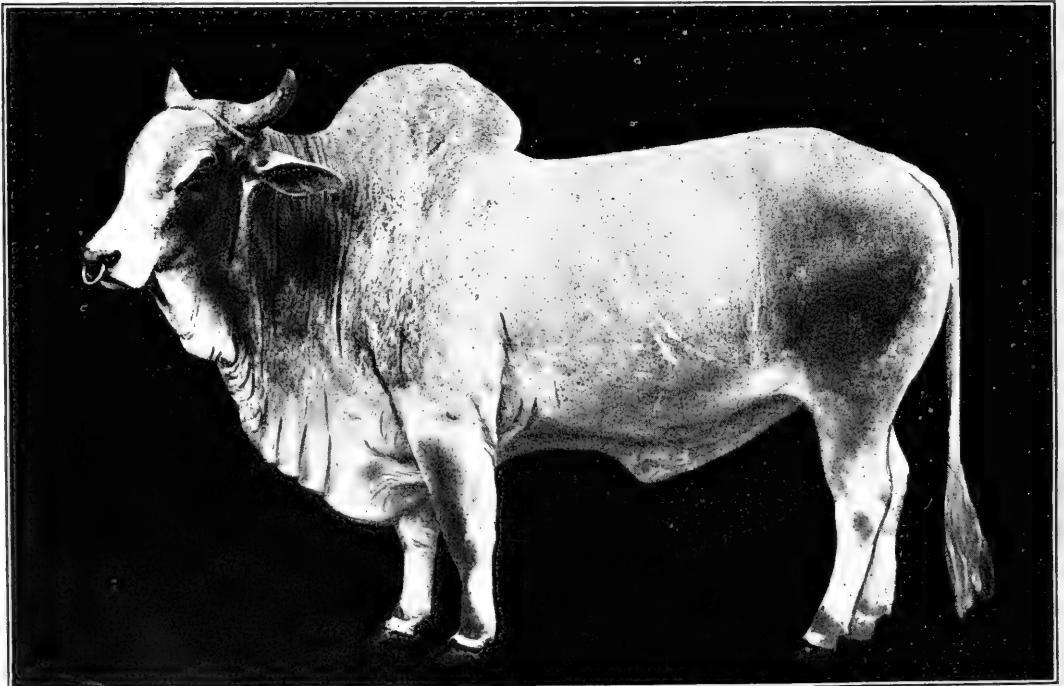
CITRUS FRUITS.

From a quality standpoint, Texas has been made famous by the oranges, lemons and grapefruit grown in the Gulf Coast country.

The Valencia and Satsuma orange have been successfully propagated in the lower Rio Grande Valley and immense profits have been realized the past year from these varieties. This section of the State, being the lowest point in the United States, is rarely ever visited by a frost, making the citrus fruit industry almost assured.

Grapefruit of superior quality are grown and have received much favorable comment in different parts of the country on account of their fine flavor.

Lemons of unusual size are grown here, but few reach markets outside of the State.



Brahma Bull, Imported from India, Gulf Coast Country, Texas

TEXAS FARM OPPORTUNITIES



Pure-Bred Jersey Cow, Gulf Coast Country, Texas

AGRICULTURAL AND LIVE STOCK FORCES.

Texas A. & M. College, College Station, Texas, is an important factor in agricultural education. Its Experiment Station and Extension Department, with a county agent in every agricultural county, contribute largely to the agricultural progress of the State.

The State Department of Agriculture, with its law-enforcement body and inspection system, is of great help in the control of contagious diseases and standardized marketing methods.

Other important factors are:

- Cattle Raisers' Association of Texas.
- Texas Dairymen's Association.
- Texas Aberdeen Angus Breeders' Association.
- Texas Hereford Association.
- Texas Jersey Cattle Club.
- Texas Holstein-Friesian Association.
- Texas Shorthorn Breeders' Association.
- Texas Sheep and Goat Breeders' Association.
- Texas Swine Breeders' Association.
- Texas Poultry Raisers' Association.
- Texas State Horticultural Society and many others.

RAILROAD AGRICULTURAL AGENTS.

The railroad agricultural agents are active in promoting settlement and development of agricultural land throughout Texas. Their services are at the disposal of the public at all times. These agricultural agents are men trained for the work both prac-

tically and scientifically. They study agricultural and horticultural conditions at all times and are in position to disseminate impartial information. All farmers are given the benefit of counsel from the standpoint of their ultimate success and satisfaction and permanence of settlement. They at all times have co-operated with all other accredited institutions and forces devoted to better agriculture and live stock production. They are familiar with crop and general conditions along the lines of the railroad they represent and are in position to assist materially in marketing all products to the satisfaction of the producer. In Texas, railroad agents have co-operated closely and helpfully with other forces engaged in the importation of pure-bred hogs, beef cattle and dairy stock.

Homeseekers will find railroad agents eager to assist them in finding suitable locations and in establishing them upon a safe farming basis. Homeseekers should avail themselves of this opportunity by getting into close touch with railroad agricultural agents.



Where The Oleanders Grow.

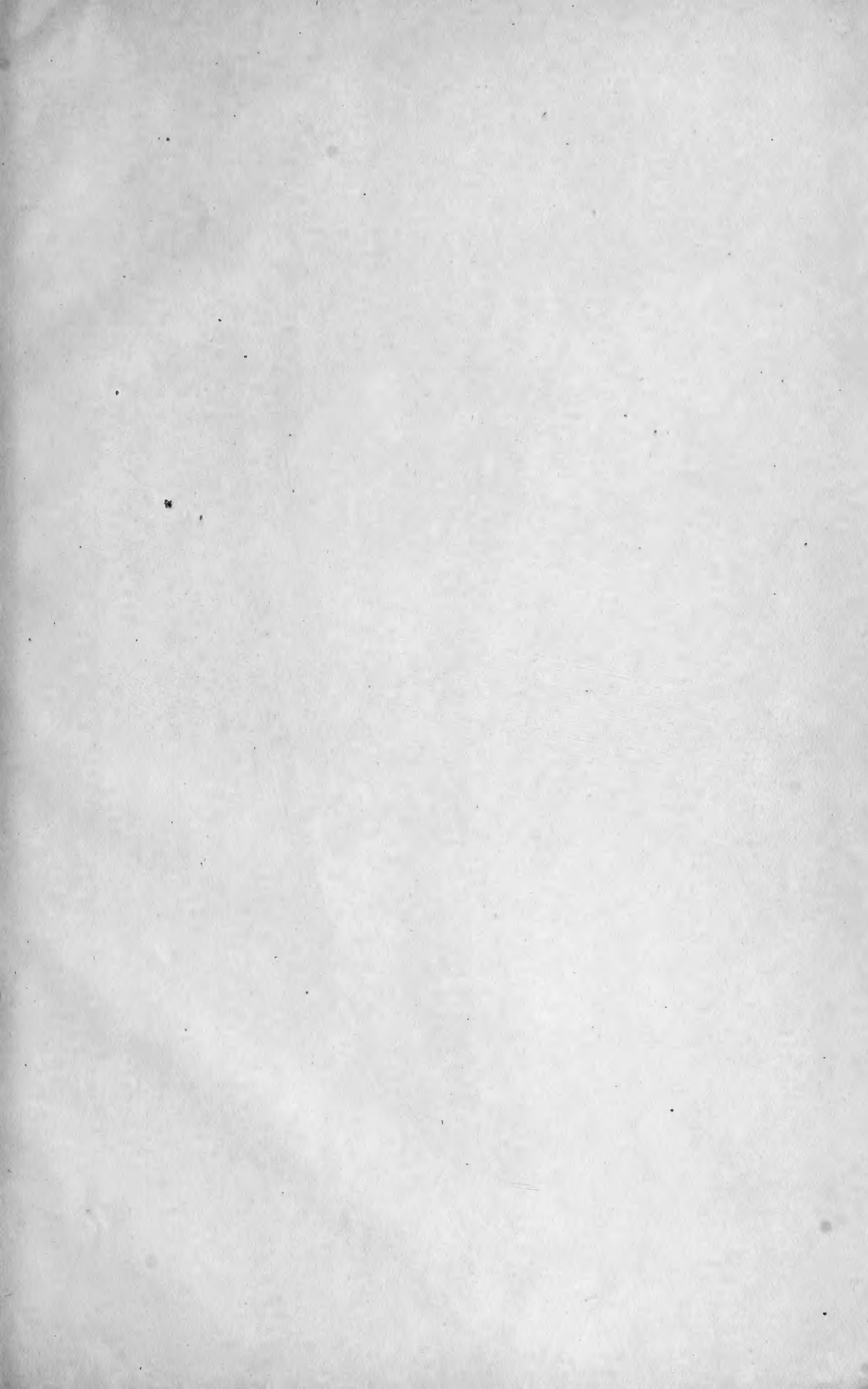
By THOMAS BAIRD.

(Consent of Publisher).

With the thermometers at zero
And the blizzard far from broke,
And the coal bill mounting skyward
Every shovelfull you stoke,
How I pine for balmy breezes
Such as fan that southern land,
By the Gulf-washed Texas prairies
Or along the Rio Grande.

In Texas thro mid-winter weather
Ozone stimulates like wine,
And no breaths from polar regions
Freeze the marrow in your spine;
And you see the roses blooming
In your garden patch so neat,
In a land where summer lingers
Mid the cactus and mesquite.

Here among the oleanders,
If you've got a modest farm,
You may plow and plant and harvest
And no trouble to keep warm.
Leave the city and its scramble
For the dollar and the dime—
Here you are in league with nature
And she's working all the time.





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