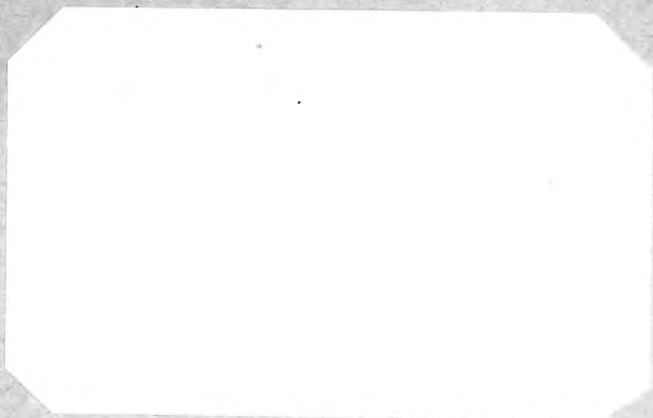


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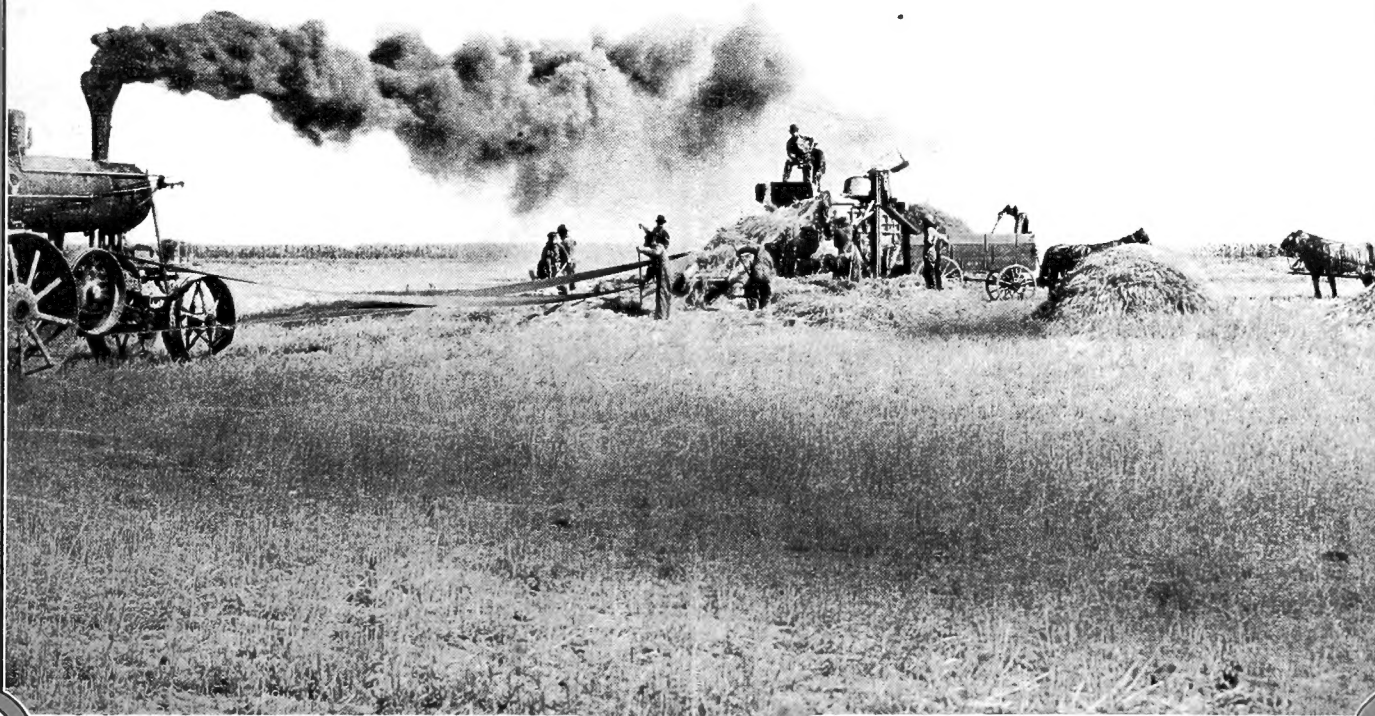
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AGRICULTURAL SERIES No. 8

UNITED STATES RAILROAD ADMINISTRATION

AGRICULTURAL SERIES No. 8

UNITED STATES RAILROAD ADMINISTRATION

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KAPAS
1919

The Purpose of This Booklet

How the Railroads Can Help the Homeseeker

Topeka, June 25, 1919

This booklet is issued by the Agricultural Section of the United States Railroad Administration, J. L. Edwards, Manager, Washington, D. C.

The information was compiled by the Agricultural Representatives of the following railroads serving the State of Kansas viz:

- Atchison, Topeka & Santa Fe R. R.**
C. L. SEAGRAVES, Supervisor of Agriculture. . . . Chicago, Ill.
- Chicago, Burlington & Quincy R. R.**
J. B. LAMSON, Agricultural Agent. Chicago, Ill.
- Chicago, Rock Island & Pacific R. R.**
ALEXANDER JACKSON, Agricultural Agent. . . Chicago, Ill.
- Missouri Pacific R. R.**
GEORGE K. ANDREWS, Commissioner of Agriculture,
St. Louis, Mo.
- St. Joseph & Grand Island R. R. (Union Pacific R. R.)**
- Salina Northern R. R. (Union Pacific R. R.)**
- Union Pacific System,**
R. A. SMITH, Supervisor of Agriculture. Omaha, Neb.

The articles on the State's more important industries and possibilities are contributed by recognized authorities.

The purpose of the booklet is to help direct ambitious and industrious home-makers and producers, desiring to better their condition in life, to localities where they should meet with success, in proportion to their resources and ability.

Our mission is to help industrious men and women to become farm owners and to enable them to lay the foundation for a home and, eventually, independence for the family.

Bear in mind that none of the railroads mentioned on page 16 of this booklet have any interest in the sale of lands, nor are they engaged in the land business.

All, however, are greatly interested in the development and general prosperity of the districts served by their respective lines.

The interests of the railroads and the communities served by the lines are identical and interwoven. Prosperous communities mean prosperous railroads. A well-satisfied settler is a good asset. A misplaced man is a liability. Our interest does not cease with the location of the settler. We are deeply interested in his success. We stand ready at all times to help the newcomer with his problems. Much valuable knowledge of farm practices and opportunities has been gained by observation and experience which will prove helpful to farmers. This is available to all inquirers.

The Railroad Agricultural Representatives have for years made a careful study of conditions, and keep in touch with their territories.

Owing to limited space, detailed information is not attempted in this booklet, but should the reader desire any special information on any subject connected with any branch of farming or stock raising, in any locality in Kansas, **it can be secured by writing to or calling upon the address stamped on the last page of this booklet.**

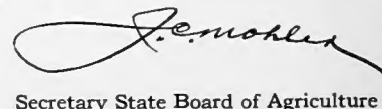
State fully just what is desired. Prompt and dependable information will be furnished.

As the ages of states and nations go, Kansas is young. Naturally, her resources are largely undeveloped. With most of our land arable, and less than half of it under the plow, manifestly a most inviting field is presented in agriculture, the State's chief industry. Opportunities are no less abundant than when Government land was available for homestead, or the difference in the price of land is more than offset by the present-day advantages of civilization—as schools, churches, transportation and markets. Kansas' leadership in agriculture, her inestimable wealth of underground treasures of coal and salt and lead and zinc and oil and gas, with a fertile soil and health-giving climate, form an incomparable combination attractive alike to the homeseeker and the investor. Come to Kansas and share in the large prosperity that comes through the development of the resources which have been so ably featured by the several recognized authorities in this booklet, which I have carefully noted and fully endorsed.

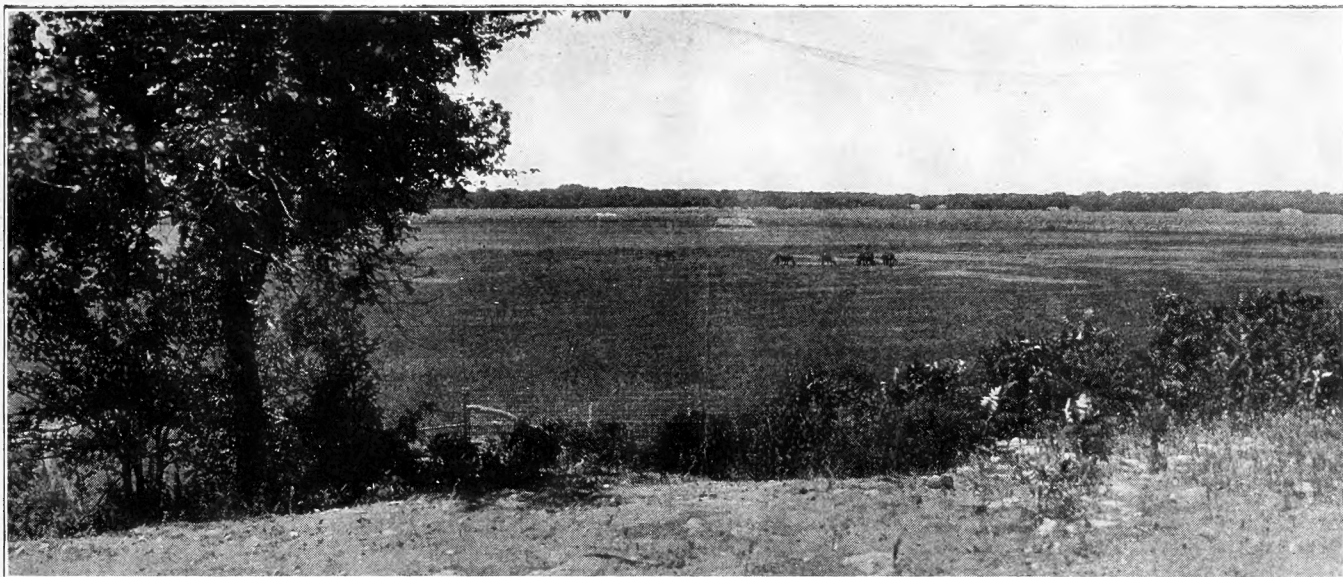

Governor

Topeka, Kan., June 25, 1919

Were the land of Kansas equally apportioned among the present inhabitants of the State, each man, woman and child would have a tract of about thirty-three acres. As a matter of fact, the Kansas farms average 244 acres in size. The total area of Kansas amounts to 82,158 square miles, or 52,531,200 acres. Belgium is only one-seventh the size of Kansas; Servia is less than half as large; Roumania is 25 per cent smaller, and so is England, with Wales included. Denmark or Switzerland is little more than a fourth as large, and the Netherlands are not one-fourth. The states of Pennsylvania and Indiana, or Maine and Ohio united, or all New England, with Delaware and Maryland for company, could find resting room on her ample bosom. According to the latest census Kansas had 1,734,000 inhabitants. If the population to the square mile in Kansas equaled that of England before the war, Kansas would have fifty-five million people; if as great as that of Belgium, 54,600,000 people; similarly, if on a par with Massachusetts, we would have 37,000,000 inhabitants; if even with Ohio, 10,000,000, or with Illinois, 9,000,000. When the resources of Kansas are fully developed, the State will sustain a vastly increased population. No state, perhaps, offers greater opportunities than Kansas, or promises more to those who will intelligently till.


Secretary State Board of Agriculture

NOV 26 1919
2



The most profitable farm is the one that produces a diversity of crops and live stock. Kansas offers exceptional opportunities for diversified farming

Kansas

A Debt-Free State

Walter L. Payne, State Treasurer

Kansas has no outstanding indebtedness, except current expenses for the present month. The School Fund of Kansas owns municipal bonds as issued by the municipalities of Kansas in the amount of \$10,674,170.23. Valuation of all property in 1918, \$3,418,798,220. Tax levy, for 1918, $1\frac{17}{100}$ mills, which produced in taxes, for the current tax year, \$3,999,995. For current expenses and legislative expenses we have so far drawn, in this current tax year, 1919, \$1,400,173.39, leaving a balance available of \$2,599,821.61.

In addition to this amount, there is produced each fiscal year, from fees and licenses collected by the several departments, approximately \$1,250,000, which goes to the general revenue of the State. The interest collected by the School Fund upon the bonds held and owned by the State, produces approximately \$450,000 per calendar year.

Agriculture Supreme

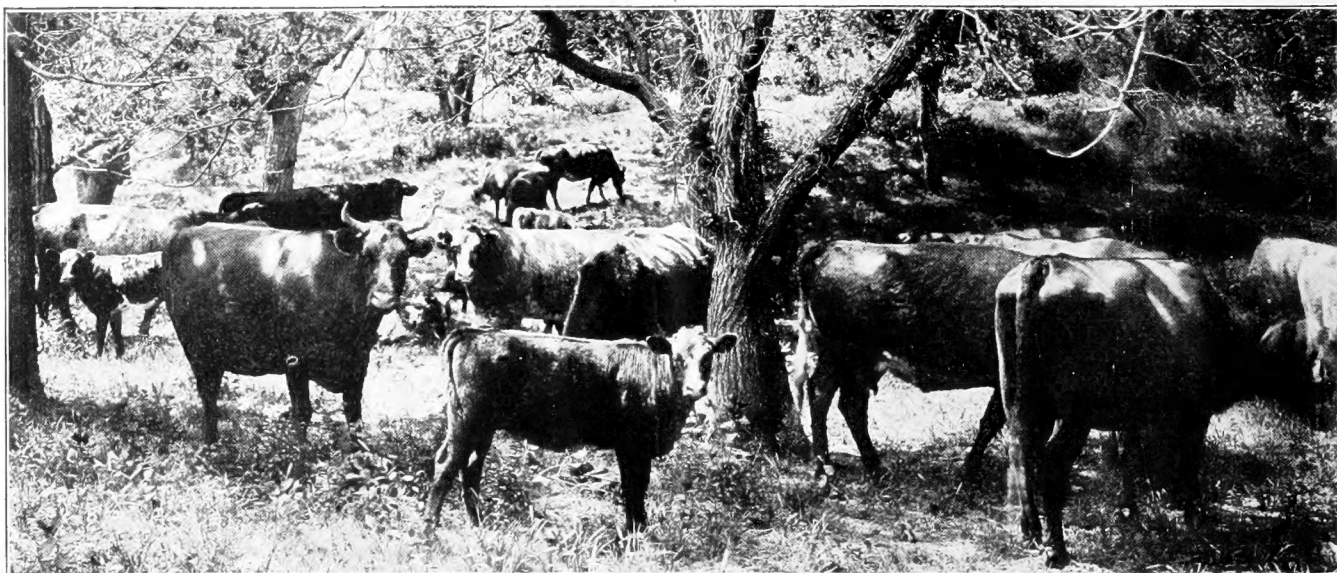
W. M. Jardine, President Kansas State Agricultural College

Kansas is known as a great agricultural State. It is true that Kansas is rapidly reaching for first place in

oil production; that only one other state outranks Kansas in the production of lead and zinc ores; that only two other states produce more salt than Kansas; that natural gas has long been a commercial product of the State; and that there is coal enough under Kansas soil to furnish power for all her manufacturing and mining industries and for domestic purposes for numberless decades. It is true that Kansas has manufacturing industries worth not less than \$330,000,000, including meat packing, flour milling, and beet sugar making. Yet, in spite of all her mineral resources and manufacturing interests, Kansas bases her reputation for usefulness before the world on agriculture.

A Combination Hard to Beat

Probably the chief assets which have operated to make Kansas a great agricultural State are richness of soil, long growing season, adequate rainfall when properly utilized, and nearness to market. We can grow wheat, corn, oats, barley, rye, sorghum, alfalfa, cow peas, soy beans, potatoes, sugar beets, garden truck, and fruits of all kinds common to a temperate climate. An abundant supply of feeds and pasture has encouraged the development of the live-stock industry. Cattle, hogs, sheep, and poultry furnish a



Kansas ranks fourth among states in cattle growing and probably the largest factor in making it a great cattle state has been the vast extent of her pasture lands

ready means of marketing as a finished product, forage crops of Kansas farms and the by-products of grain farming. The largest stock markets of the country are within easy reach. It is hard to beat the combination of wheat, corn, alfalfa, sorghums, silos, pastures, cattle, and hogs as a means of producing wealth.

The Crop That Made Kansas Famous

Wheat is the crop that brought fame to Kansas. Not only does the State lead in the extent of production, but also in the quality of her hard red winter wheat. The record crop of 180,000,000 bushels, in 1914, will probably be exceeded in 1919. Not less than 11,000,000 acres have been sown and the total yield will probably exceed 200,000,000 bushels this year.

Kansas farmers are showing great interest in the new strain of hard, red winter wheat, called Kanred, which has been developed by the Kansas State Agricultural Experiment Station at Manhattan. In tests covering a number of years this improved wheat has given an average increased yield over Turkey Red and Kharkof of from 3.4 to 5.2 bushels. Fifty thousand acres were planted to Kanred wheat the fall of 1918. It is planned that the total yield shall be used for seed and it is expected that there will be enough to seed 7,000,000 acres.

Corn Also a Wealth Producer

While it is the tremendous wheat crops that have made Kansas famous, corn has been one of the State's

greatest sources of wealth. In total yield and value, corn has had the lead of wheat in not less than nine years out of ten during the entire history of the State. The two-hundred-million bushel mark has been exceeded several times.

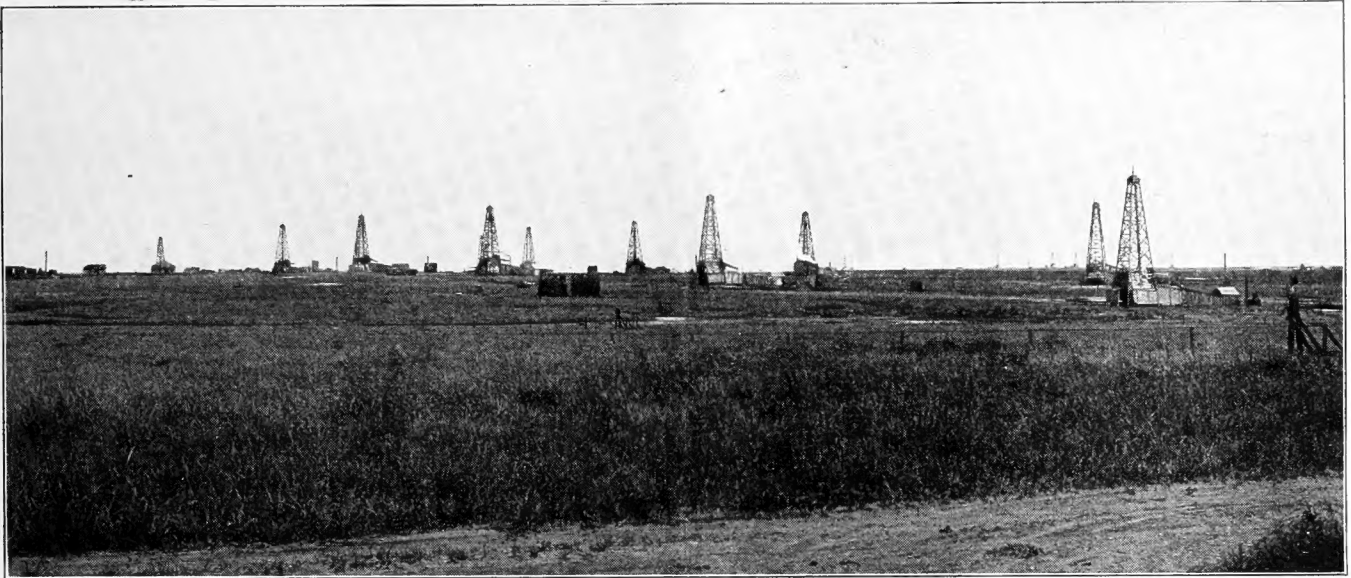
Sorghums as Life Insurance

While wheat and corn are the great sources of the productive wealth of Kansas, the sorghums which were introduced about the same time as alfalfa, have come to form the State's life insurance. The sorghums are undisturbed by the ordinary dry spell. If a drought sets in they settle down to a state of siege and when the time of stress ends, as it always does, they pick up, show new life, and renew their business of making feed for Kansas live stock. In other words, sorghums possess the ability to resist droughts. The Kansas Agricultural Experiment Station is earnestly endeavoring to develop to a still greater degree this valuable characteristic.

It has been shown through feeding tests at the Agricultural Experiment Station that the grain of sorghums is equal practically pound for pound to corn in feed value for live stock.

A Great Live-Stock State

The live-stock industry has kept pace with the growth in crop production. The State ranks fourth among states in cattle growing, being one of the four states whose cattle number not less than



A small part of one of the many oil fields in Kansas. The oil industry furnishes employment for thousands of men and oil centers offer splendid markets for truck, dairying and poultry products

2,000,000. Probably the largest factor in making Kansas a great cattle State has been the vast extent of her pasture lands. Of the 52,000,000 acres of land approximately 20,000,000 acres are grazing lands covered with native grasses. In western Kansas the buffalo grass, native to that region, cures as it stands and furnishes nutritious feed which the cattle harvest themselves in summer and winter feeding. Kansas winters are comparatively mild and the winter feed requirements for animals are low. Dairying is a growing industry in the State, Kansas being among the first eight states of the Union in number of milk cows.

Not less than 74.6 per cent of all farms in the State produce hogs. More Kansas farms produce hogs than any other class of meat animals. Kansas can grow hogs possibly as cheap as any other state because of the extensive alfalfa fields and the abundance of bran and shorts, by-products of the milling industry.

Many Types of Farming

While all parts of the State are adapted to crop and live-stock production, the diversity of the soil and climate makes possible many different types of farming. The northeastern section and parts of the Arkansas River Valley are admirably adapted to apple growing. The Kaw Valley and the eastern Arkansas River Valley furnish ideal conditions for potato production, and since Kansas potatoes are ready for market in July and August, an in-between season for southern and northern potatoes, potato growing is an

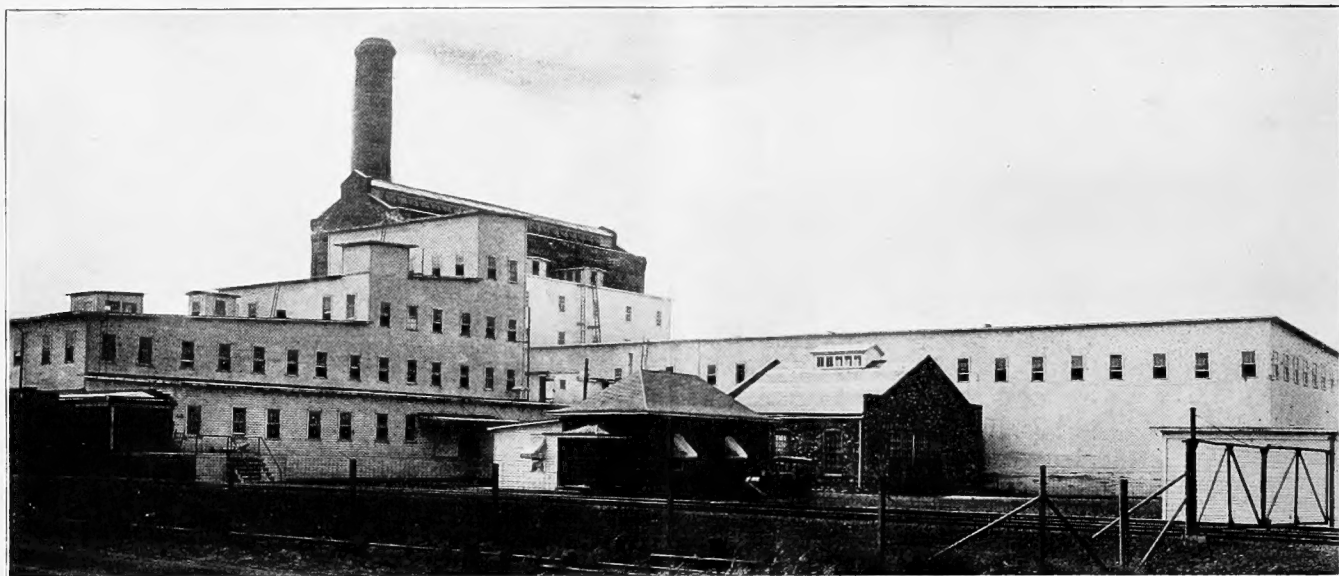
important industry. Truck gardening can be done profitably near any large city furnishing an adequate market. Several nursery stock growing enterprises are located in the Kaw Valley.

Growing Sugar Beets by Irrigation

In the Garden City and Scott City districts the growing of sugar beets and the manufacture of beet sugar constitute an important industry. The beets are grown by irrigation and the water is secured mainly from wells by pumping. Throughout the Arkansas River Valley from Colorado to the Oklahoma State line there exists a large quantity of underground water varying from seven to forty feet beneath the surface. Pumping for irrigation is no longer an experiment and not only sugar beets but all kinds of farm and garden crops are now grown in the Arkansas River Valley by means of water secured through pumping. This section is destined to great agricultural development.

Intelligence and Industry Succeed

Kansas is no place for the laggard, but for the man who has stuff in him, who possesses an average amount of intelligence and is willing to work and save, the State offers all the essentials for success. It is true that today and henceforth greater efficiency must be exercised in the business of farming in order to make a profit. Farmers must take a lesson from the fact that much of the wealth of the large industrial organizations has been created through the utilization of



Kansas ranks third in the Union in the production of salt, but leads in oil, lead, zinc and coal.
Her industrial centers furnish home markets for the farmers' produce

by-products formerly considered worthless. In like manner the by-products of grain farming, such as corn and sorghum stalks and wheat and oats straw, must be given a market value through feeding to live stock. The silo must become an essential part of farm equipment.

All that is needed is to put into practice sound principles of farming. The man that harnesses up with his own intelligence and industry the natural resources of Kansas in climate, soil, and geographical location, will get on without difficulty.

THREE GRAND DIVISIONS

The State, for the purposes of this booklet, has been divided into three sections.

THE EASTERN, and oldest part, includes the following counties:

Doniphan, Brown, Memaha, Marshall, Washington, Atchison, Jackson, Pottawatomie, Riley, Clay, Wyandotte, Leavenworth, Jefferson, Shawnee, Wabaunsee, Geary, Dickinson, Johnson, Douglas, Osage, Morris, Miami, Franklin, Lyon, Chase, Marion, Linn, Anderson, Doffey, Bourbon, Allen, Woodson, Greenwood, Butler, Crawford, Neosho, Wilson, Elk, Cherokee, Labette, Montgomery, Chautauqua and Cowley.

This, as a whole, is a highly developed agricultural and live-stock section.

Lands in the Eastern Section range from \$60 to \$200 or more an acre, dependent on soil character, improvements, distance to railroad and markets.

CENTRAL KANSAS, which includes:

Republic, Jewell, Smith, Phillips, Norton, Cloud, Mitchell, Osborne, Rooks, Graham, Ottawa, Lincoln, Russell, Ellis, Trego, Saline, Ellsworth, Barton, Rush, Ness, McPherson, Rice, Harvey, Reno, Stafford, Pawnee, Hodgeman, Sedgwick, Kingman, Pratt, Edwards, Kiowa, Ford, Sumner, Harper, Barber, Comanche and Clark.

This is a fairly well developed section with most of the land being utilized to good advantage. There are, however, many opportunities to purchase lands at prices ranging from \$25 to \$125 an acre, according to improvements, soil, distance to markets, etc.

WESTERN and SOUTHWESTERN KANSAS is largely susceptible to agricultural development. A settler can still secure desirable farming lands at prices ranging from \$12.50 to \$45 an acre, according to improvements, soil, location, distance to railroads and markets. It comprises the following counties:

Decatur, Rawlins, Cheyenne, Sheridan, Thomas, Sherman, Gove, Logan, Wallace, Lane, Scott, Wichita, Greeley, Finney, Kearney, Hamilton, Gray, Haskell, Grant, Stanton, Meade, Seward, Stevens and Morton.

In all the three sections outlined, it should be kept in mind that highly productive bottom lands, and lands along streams, command much higher prices than the uplands. As the Western and Southwestern Sections will naturally appeal to the man of small means, a short review of these counties is herewith given.

RAILROAD ADMINISTRATION



How the newcomer started in the early days in Western Kansas. Modern farm home, showing a few years of progress
—the result of diversified farming and stock raising

NORTHWESTERN COUNTIES

County	Population	County Seat	Altitude	Acreage	Assessed Valuation	Railroad Mileage	Total Number Head Live Stock	Surplus Dairy and Poultry Products Sold Annually
Cheyenne.....	4,440	St. Francis ..	3,100	652,800	\$7,908,107	23	30,504	\$91,181
Rawlins.....	6,255	Atwood.....	2,843	691,200	9,274,865	38	40,417	122,494
Decatur.....	8,067	Oberlin.....	2,561	576,000	12,162,141	57	52,005	204,444
Sherman.....	4,432	Goodland.....	3,688	691,200	10,161,053	35	32,478	131,180
Thomas.....	5,008	Colby.....	3,135	691,200	13,300,188	76	27,527	87,289
Sheridan.....	5,370	Hoxie.....	2,654	576,000	10,630,136	43	39,200	213,138
Wallace.....	2,258	Sharon Springs	3,448	576,000	3,044,986	31	27,926	39,042
Logan.....	3,316	Russell Springs	.....	691,200	8,796,366	75	32,348	100,386
Gove.....	4,537	Gove.....	.....	691,000	10,277,865	37	28,466	128,959

CENTRAL WESTERN COUNTIES

County	Population	County Seat	Altitude	Acreage	Assessed Valuation	Railroad Mileage	Total Number Head Live Stock	Surplus Dairy and Poultry Products Sold Annually
Greeley.....	1,060	Tribune.....	.....	499,200	\$3,881,233	26	14,296	\$19,494
Wichita.....	1,593	Leoti.....	3,297	460,800	3,930,649	24	18,994	41,595
Scott.....	2,267	Scott City.....	2,964	460,800	6,483,425	68	21,782	49,103
Lane.....	2,476	Dighton.....	2,759	460,800	7,481,281	49	24,994	58,495
Hamilton.....	2,444	Syracuse.....	3,228	612,080	6,711,773	29	27,062	27,412
Kearney.....	2,431	Lakin.....	2,990	552,960	7,459,404	26	25,484	28,992
Finney.....	6,716	Garden City.....	2,892	829,440	18,311,255	62	44,040	83,636
Gray.....	4,386	Cimarron.....	2,615	552,960	11,548,175	51	21,485	59,717

SOUTHWESTERN COUNTIES

County	Population	County Seat	Altitude	Acreage	Assessed Valuation	Railroad Mileage	Total Number Head Live Stock	Surplus Dairy and Poultry Products Sold Annually
Seward.....	5,053	Liberal.....	2,853	414,720	\$10,177,869	30	26,000	\$60,321
Stevens.....	2,757	Hugoton.....	3,235	466,560	7,162,733	31	20,252	24,213
Meade.....	6,053	Meade.....	2,517	624,000	11,971,594	33	43,257	96,166
Haskell.....	1,336	Santa Fe.....	3,020	368,640	4,958,111	27	12,392	14,138
Morton.....	2,229	Richfield.....	3,350	466,560	5,147,903	22	18,176	6,082
Grant.....	997	New Ulysses.....	2,800	368,640	3,799,852	2	17,331	14,675
Stanton.....	881	Johnson.....	3,340	430,080	3,552,493	0	18,536	4,787



Broom corn is very profitable in Southwest Kansas for the man who understands the business. Wichita is the greatest broom corn market in the world.

The Lay of the Land

Northwestern Counties. As a general rule the surface of the land in these counties is undulating prairie, with bottom lands along the rivers, streams and creeks, averaging from one-half to a mile or more in width and well adapted to alfalfa.

The rivers and streams are usually well fringed with timber, white elm, white ash, box elder, cottonwood, hackberry and wild cherry being the most common.

There is a small percentage of bluff and rough land, best adapted to grazing purposes.

Limestone and sandstone, suitable for building purposes, is usually plentiful in all the counties.

Principal crops are winter wheat, corn, barley, native hay, sudan grass, emmer, kaffir, milo, and other grain and forage sorghums; oats, barley and millet for forage; alfalfa in the bottom lands; potatoes; fruit for home consumption. Plums do well in this section.

Keep in mind that live stock is a leading industry in all these counties and that all are particularly well adapted to dairy farming, poultry and sheep.

Depth to domestic water runs from thirty to one hundred and seventy-five feet.

Central Western Counties. The general lay of the land and characteristics are very similar to the counties in group one, and the principal crops practically the same.

In Kearney and Finney counties, the growing of sugar beets by irrigation is a very important and growing industry.

Many large pumping plants and storage reservoirs, utilizing the water from the Arkansas River, make the raising of crops under irrigation possible and usually very profitable.

In these two counties sugar beets are the most important crop.

A sugar beet factory at Garden City, costing over a million dollars, converts thousands of tons of sugar beets annually into sugar.

Alfalfa is also a very important crop in these counties, both for feed and seed. In Scott County there are also great possibilities on lands under irrigation by pumping. Irrigated lands naturally command high prices.

Southwestern Counties. As a rule the surface of the land in these counties is undulating prairie, with a small percentage of broken land well adapted to grazing and the raising of cattle, horses and mules. There is a big acreage of alfalfa valley lands along the rivers and streams, and in Meade and Morton counties are many artesian flowing wells, varying in depth from fifty to two hundred and fifty feet, consequently alfalfa, beef cattle and hogs are leading industries. Lands suitable to irrigation from flowing wells command high prices.



Kaffir, being drought-resistant, is one of the surest crops for Western Kansas and is practically equal to corn in feeding value

In addition to the crops shown in the other counties, broom corn is a very important crop in all the southwest counties.

There is limestone and sandstone suitable for building purposes in all counties, and large deposits of gypsum in most of them.

The climatic and other conditions in western and southwestern Kansas all tend for health.

Farming Possibilities in Western Kansas

Chas. R. Weeks, Supt., Fort Hays Experiment Station

Western Kansas offers an opportunity for a home to the industrious and energetic man who is desirous of bettering his condition in life. Thousands of acres of land yet unused or inadequately used await development. Many substantial homes, equipped with modern conveniences, found scattered throughout every western Kansas county prove what can be done by the right man, using the right methods. Western Kansas is not the place for the man who has visions of a small intensive farm near a large city with a good truck market. It is rather a country for the man who can handle a larger acreage, adapting himself to the contingencies and circumstances intelligently, and who follows the farm practices especially adapted to this region. For such men there are many opportunities.

The newcomer to this section will do well before planning his system of farming to consult the county agricultural agent, the nearest experiment station, and

study the methods of the most successful farmers. The fact that large wheat yields are occasionally secured on poorly prepared ground has led many to gamble in this crop. The man who depends on a one-crop system for success sooner or later meets with failure.

Careful investigation by the Fort Hays Branch Experiment Station, on the cost of producing wheat, has proven beyond a doubt that the farmer who has a diversity of farm activities, produces his wheat at the lowest cost, and makes the greatest average income.

The profitableness of the cattle business in the earlier days of open range, and even now the raising and fattening of cattle, on the rich buffalo grass, has led to many false impressions of easy money in western Kansas. There is no easy road to independence. Experience has shown that farmers with a few head of cattle, a silo, a few milch cows, hogs, and chickens, who raise grain sorghums for feed, make good and gradually accumulate wealth. Such farmers may secure an occasional big yield of wheat. An open winter for stock may make it possible to save feed and make additional profits, but the man who has an income from several sources plays safe, and makes money, perhaps not as fast, but much surer.

A man, as a rule, should have 320 acres in western Kansas. Many have made success on smaller units. Usually the man on a half section, or less, who raises live stock, leases additional land from absent land



The Pit Silo can be built in Western Kansas without expert labor, and it should be a part of every dry-land farm

owners until he accumulates enough money to increase the size of the farm.

How to Make a Start

W. E. Grimes, Asst. Prof. Farm Management, Agri. Col.

Diversified farming, which means the production of several kinds of crops and live stock, is the most profitable and safest kind of farming to practice. Experience in farming in Kansas shows that the man who produces a diversity of crops and live stock so that his labor is well distributed throughout the year, and has something to sell at all seasons, has the highest average income through a term of years. In the central and western sections, live stock is especially important and the man who is beginning farming with a small amount of capital should plan on keeping some live stock from the start. This will make his income sure and protect him from uncertain weather conditions.

Before deciding what crops to plant, the newcomer should make inquiry as to what varieties are best adapted to that particular section in which he is located, and secure seed of the very best. If possible, he should plan to produce some cash crops, such as wheat, but should leave sufficient acreage for growing enough drought-resistant grain sorghum crops, such as kaffir, feterita, milo maize, etc., to carry his live stock over winter. The grain sorghums produce feed for live stock in the driest of years and can be relied upon.

It is important that the beginner avail himself of every means to keep down expenses the first year. He should produce as large a share of his living from his farm as possible. A good home garden will reduce the grocery bills, and a small storage pit, which can be cheaply built, will successfully keep potatoes and other root crops through the winter months.

The dairy cow will undoubtedly give the quickest return on the money invested and will bring in a monthly cash income. It takes but a small amount of capital to purchase a few head of dairy cows, and because of the safety of this kind of farming, the bankers in the State are showing a disposition to loan money to industrious farmers for the purchase of dairy cows. Every farmer should have a few dairy cows to supply milk and dairy products for his own table, and to furnish a surplus for an immediate and regular cash income.

He should also have a small flock of hens to produce eggs for his table, thus reducing the cost of his living and to furnish a surplus, which is always readily saleable. He should have a few head of hogs—sufficient to take care of the waste products on the farm, and to produce his winter meat supply. The combination of the garden, cows, chickens, and hogs, with the growing of drought-resistant feed crops, will insure success to any industrious man of reasonable judgment.



A cherry, apple and peach orchard in Western Kansas. Fruit for home use can be produced in all parts of the State. It is important that the orchard be well cultivated

The pit silo (where it can be constructed) in connection with the above combination makes success even more certain. By the means of a silo a man can save the entire feeding value of his crop in such shape that it will be convenient for winter feeding.

Amount of Capital Required

Many men have gone into western Kansas with no backing but a strong body, a good reputation, a level head and a willingness to work, and have become independent. Others have started with considerable money and have failed. The individual factor is so variable that no fixed amount of money can be set as necessary for success. However, as a rule, a man should have enough to make the first payment on his land, equip himself with the necessary machinery and horses, secure three or four good dairy cows, two or three hogs, 25 or more choice hens, and a sufficient balance to build a small house and sheds, and a well, if he goes on an unimproved farm, and to buy seed and feed to carry him until his crops come in. If the newcomer can start with more live stock than indicated above, his chances of success will be greater.

A wagon, a plow, a lister, a disc, a cultivator, a drill, a spike-tooth harrow, and small tools are necessary at the start. A soil packer would be a good thing, but the disc set straight may be used instead. Other tools which are used only a short time each season may be bought co-operatively with neighbors and used jointly. The newcomer should have at least four

horses. Such a layout will require from \$1,500 to \$2,500 capital, depending upon conditions and the individual. Quite a number of western farmers, however, have their plowing and other heavy work done by contract, with tractors. The prospective settler should secure all information possible as to local conditions, prices of materials, etc., in the locality of his choice and plan wisely his probable expenses before selling the equipment he has on hand. A personal visit and examination of the land should be made before moving.

From the Sec'y of the State Bankers' Assn.

W. W. Bowman

The wealth of Kansas is not imported wealth; it is mainly wealth sprung from her own rich soil. The State has 1,300 banking institutions widely distributed over 105 counties, covering more than 82,000 square miles. Every county in the State enjoys abundant banking facilities. The stockholders of Kansas banks are almost 100% residents of Kansas—men and women of all vocations.

These institutions are permanently employing about 60 million of working capital, are the depositories of full 450 million dollars of the wealth of the people, and the volume of aggregate working capital and aggregate deposits steadily increases. It has enabled the banks of Kansas to have a large effective part in the development of the State, not through direct aid to State institutions, but through timely



A typical bunch of high-grade Herefords. Western Kansas is well adapted to the production of feeder steers, for which there is a strong demand in the eastern part of the State

assistance to the multitudes of individual customers. No man engaged in worthy pursuits, who is conducting his business intelligently, ever fails to receive the fullest measure of assistance and encouragement to which he is entitled. This does not mean that any Kansas bank will furnish capital with which to start a store, or equip a manufacturing plant, or even buy a farm. It does mean that any good man with character and ability and a good start of his own can depend upon the bank always to be his friend and lend him credit to the fullest extent consistent with good banking. It is not the province of a bank to start men in business—it is their province to extend them freely all the credit to which they are entitled to meet seasonal demands.

None more than the bankers of Kansas welcome the newcomer to the State. The newcomer should among the very first seek to meet and to become acquainted with the banker. Not immediately to borrow money, nor need he expect that as a stranger credit will be immediately extended to him. There must first be an acquaintanceship, then a confidence, and then is established a long line of business relationships mutually helpful both to the banker and to his new-found customer and friend. All this awaits every newcomer to Kansas. Nothing can be more certainly depended upon than that the Kansas banker will extend all the benefits of his ripe experience, his friendly and helpful counsels, and ultimately the fullest

measure of material assistance possible for a bank to extend, or which, on any principle of good business, ought rightly to be extended to any customer.

Work of the Agricultural Experiment Station

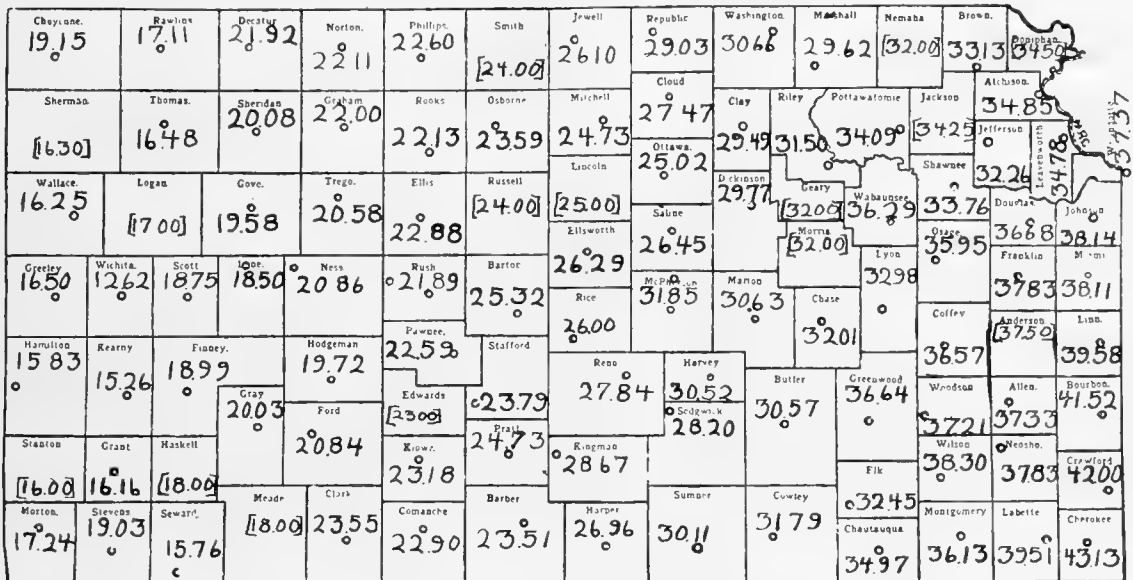
F. D. Farrell, Director

Much information as to best methods of farming is needed by experienced Kansas farmers, but the need for information is felt particularly by new settlers, many of whom are unfamiliar with agricultural conditions in Kansas. As rapidly as useful facts are secured, they are made available to the farmers of the State through the Division of College Extension, through the publication of bulletins, reports, and press notices, and in other ways.

Any actual or prospective farmer desiring to secure information regarding any farm matters is invited to correspond with the Director of the Experiment Station at Manhattan.

The work of the main station at Manhattan is supplemented by that at four branch stations located in the western part of the State. This region doubtless will receive special attention by prospective new settlers. These stations are used to extend the investigational work of the main station and to conduct experiments of local importance in western Kansas. Branch stations are located at Fort Hays, Garden City, Colby and Tribune. These stations are of great

U. S. RAILROAD ADMINISTRATION



Map of the average annual precipitation in Kansas. Amounts in this map include the moisture from melted snow, rain, sleet and hail. These averages cover approximately a ten to forty-year period. Small circles indicate location of the weather bureau station, where these records have been kept. Figures in brackets indicate amounts inserted from records made in adjoining counties

value to farmers in the western section of the State, in determining what crops can be most profitably raised, best methods of handling live stock, etc. The Superintendent at any station will gladly assist newcomers with their farming problems, advise where they can secure good seeds, improved live stock, etc. Address the Superintendent at the nearest station.

In addition to the investigational work carried on at the main station and the four branch stations, experiments are carried on throughout the State in co-operation with farmers. Field tests of seeds developed at the experiment stations are made, and last year 788 tests were made in 80 counties.

The activities of the station reach to all parts of the State and involve all principal agricultural problems, including those of production, utilization, and marketing. Through the station's organization and facilities any farmer, whether he be an experienced farmer or a new settler, can obtain much useful information and assistance from the Agricultural Experiment Station. The station, like the college of which it is a branch, belongs to all the people of the State, and is maintained solely for their service.

Weather and Climate

S. D. Flora, Meteorologist, U. S. Weather Bureau
and Kansas State Board of Agriculture

Kansas has a climate which is characterized by extremes of temperature, great variations in the

seasonal rainfall, much sunshine, and dry, bracing air—a climate that is productive of bountiful cereal crops and vigorous health.

The distribution of the annual precipitation (rain and melted snow and sleet) over Kansas, and the time of its occurrence, are the chief limiting factors of crop growth, and receive more attention than any other features of the weather.

It decreases with remarkable regularity from forty-two inches in the southeastern counties, to just a little more than fifteen inches at the Colorado line. The northern half of the State receives practically the same amount as the southern, except that the northeastern quarter has a little less than the southeastern.

Over the eastern half, the annual precipitation equals that of Iowa, Wisconsin, and Michigan, and is only a little less than that of Illinois, Indiana, or Ohio, and it occurs at a more opportune time of the year than the precipitation of any of these states. From seventy-one to seventy-eight per cent of the annual amount falls in the six crop-growing months, April to September, inclusive, and there is no state in the country, except a few along the Gulf Coast, that, taken as a whole, receives as much rain during the summer months as the average for the eastern third of Kansas. Even the middle third of the State receives slightly over twenty inches during these six months, which is within two inches of the amount that falls during the same period in Illinois, Indiana, Ohio, New



Alfalfa is grown in all parts of the State and does especially well on the river and creek bottoms. The seed raised in the western part of the State is in big demand

York, and the New England States, while the western third, the "semi-arid region," has an average precipitation of more than sixteen inches for this period, which almost equals the amount during these six months in Michigan and Wisconsin, and is approximately three-fourths of the average for Iowa for that period.

The average annual snowfall of the State ranges from eleven inches in the extreme south central counties to two feet in scattered localities farther north. As a rule, the ground is not covered with snow more than a few days at a time.

Whether the precipitation falling over the State, especially the western counties, has shown any progressive increase or decrease since the land was opened for settlement, and the prairie sod broken up, is a question that has been the subject of much discussion, owing to the extreme importance of such a change on crop yields. It is undeniably a fact that immense fields of wheat, grain sorghums, and even corn, now cover a large area in the western part that was once designated as "The Great American Desert," but a rather exhaustive study of all the available precipitation records, many of which were begun forty years ago, fails to show any material change in the annual amount, or in its distribution through the year. Improved methods of farming and adapted crops increase production.

The sunshine that Kansas receives each year is one of its greatest climatic assets and also one of the

reasons of the high rate of evaporation in the western counties. Practically no other part of the country that receives as much rainfall during the growing season is favored with as high percentage of sunshine, which makes for rapid growth of crops.

July and August are the sunniest months and January and February are those when the sun is most likely to be hidden by clouds.

Of the fully equipped stations of the Weather Bureau in Kansas, including the one just across the State line at Kansas City, Mo., where records of cloudiness have been kept for from twenty-five to thirty-eight years, none has an average of less than 144 clear days annually or more than 101 cloudy days. At Dodge City, which represents conditions in the western part, there is an average of but sixty-one cloudy days per year.

Kansas has a reputation of being a windy State, when as a matter of fact the most recent compilation of wind velocity over the country shows that the winds of the eastern half of the State are not noticeably greater than those of Illinois, Indiana, or Ohio, and are less than those of Michigan.

The growing season is sufficiently long to give ample time for the development and maturing of the principal crops. Only in rare instances do the killing frosts of autumn occur early enough to cause serious damage.



About nine-tenths of the Kansas wheat crop is hard winter wheat. A new variety called Kanred, yielding from four to five bushels more per acre than the ordinary strains, has been developed

The average date of the last killing frost in Spring ranges from April 7th in the extreme southeast to the first week in May in the northwest. The average date of the first killing frost in autumn ranges from the first week in October, in the northwestern counties, to October 22d in the southeastern.

On account of the dryness of the air in the western part instances often occur where the temperature falls to freezing or even a few degrees below without the deposit of frost or any damage to the most tender vegetation.

KANSAS AND WHEAT

J. C. Mohler, Secretary Kansas State Board of Agriculture

Can you—by any stretch of imagination—comprehend the magnitude of a wheat field extending over an area of 11,000,000 acres?

And should you succeed, would you credit any one state with having planted such an acreage to wheat in a single season?

Not likely.

But that's what Kansas did in the Fall of 1918. She sowed to wheat that Fall an area that exceeded the total land surface of Massachusetts, Rhode Island, Connecticut and Delaware combined, with 839,760 acres over for good measure.

Her wheat acreage alone exceeds, by 2,805,280 acres, the entire area of the Kingdom of Holland.

It would cover every acre in Belgium and still have 3,721,280 acres to spare.

Greater than the entire Kingdom of Denmark, with a surplus of 1,151,680 acres.

These facts are simply quoted to give one a faint idea of what the State produces in the way of wheat alone.

If nothing unforeseen happens, our wheat yield this year (1919) is expected to exceed 200,000,000 bushels.

Great as have been her achievements, Kansas is just striking her gait.

Wheat is not by any means OUR only crop.

The aggressive man contemplating a new home knows that climate is a most important factor in successful farming.

Man can control practically everything except climate.

The accompanying tables prove most emphatically that Kansas is not a ONE-crop state.

Kansas Crops and Products in 1918

The yields and values of the crops and products for 1918 are as follows:

		Value
Winter and spring wheat	93,195,332 bushels	\$186,332,975
Corn	44,539,488 bushels	64,081,656
Oats	50,482,487 bushels	35,562,383
Rye	2,257,212 bushels	3,569,001
Barley	5,737,224 bushels	5,601,765
Emmer (Speltz)	10,685 bushels	8,107
Irish and sweet potatoes	2,875,701 bushels	4,119,708
Cow peas	3,719 tons	61,363
Flax	205,227 bushels	666,983
Broom corn	18,582,438 pounds	1,791,975



While Kansas has thousands of miles of good roads, the federal government and the State will spend \$8,000,000 for additional good roads in the next thirty months. This means better marketing facilities and improved social life

Millet	125,057 tons	\$1,449,034
Sugar beets	74,215 tons	741,628
Sorghum for syrup	421,310 gallons	463,441
Kaffir	9,808,678 bushels	15,202,510
Milo	4,121,689 bushels	6,166,632
Feterita	1,583,036 bushels	2,389,389
Sorghum hay, forage and stover	4,600,155 tons	30,227,931
Saccharine sorghum for seed	2,052,361 bushels	3,746,296
Jerusalem corn	5,224 tons	41,738
Sudan grass	165,704 tons	1,751,722
Alfalfa	2,746,460 tons	58,751,741
Tame hay (exclusive of alfalfa)	338,026 tons	7,293,234
Prairie hay	694,208 tons	12,070,049
Wool clip	453,168 pounds	244,711
Cheese	30,264 pounds	5,448
Butter	48,197,142 pounds	19,767,075
Condensed milk	12,939,302 pounds	1,161,949
Milk sold, other than for butter and cheese		1,820,454
Animals slaughtered or sold for slaughter		108,073,032
Poultry and eggs sold		14,792,380
Horticultural products		3,785,857
Honey and beeswax	558,960 pounds	140,099
Wood marketed		135,053
Total value of all farm products		\$592,017,325

Animals and Value of Live Stock

	Number	Value
Horses	1,053,000	\$116,883,000
Mules and asses	227,745	31,884,300
Milk cows	683,211	56,023,302
Other cattle	2,239,717	120,944,718
Sheep	249,928	3,124,100
Swine	1,467,082	33,009,345
Total value of live stock		\$361,868,765

Notwithstanding this wonderful showing in agricultural production it should be borne in mind that there are yet remaining more than 30,000,000 acres of tillable land in Kansas that has never yet been plowed.

Railroads and Transportation

Alexander Jackson, Chicago, Rock Island & Pacific R. R.

The following railroads serve the State: Atchison, Topeka & Santa Fe, Chicago, Burlington & Quincy, Chicago, Rock Island & Pacific, Kansas City, Mexico & Orient, Kansas City Southern, Midland Valley, Missouri, Kansas & Texas, Missouri Pacific, St. Louis & San Francisco, St. Joseph & Grand Island, Salina Northern and Union Pacific Railroads.

In selecting a desirable location to engage in the production of the chief staple necessities of life, the wise man always keeps in mind one vital thought—**MARKETS.**

Quick and economic transportation to desirable markets is a most important consideration to the farmer.

In the State of Kansas there are almost ten thousand miles of railroads, no railroad station within the State being more than twenty-four hours from a profitable market.

Kansas is particularly fortunate in being the hub of that great temperate zone in which is produced the bulk of the essentials of life, such as wheat, corn and oats, live stock of all kinds, and other products of the farm, which all must consume daily.

Kansas produces all the cereals excepting rice.

Bounded on the north by Nebraska, on the south by Oklahoma, by Colorado on the west, and by Missouri on the east, the State is well located from a geographical standpoint.



Kansas rural schools are making rapid advancement and many of the older buildings are being replaced by modern buildings with provision for all of the new school activities

Within her own borders are the great commercial centers and markets of Wichita, Hutchinson, Kansas City, Topeka, Atchison, Leavenworth, Salina and numerous other smaller, but very active business centers.

Just across her border, on the east bank of the Missouri River, are two great food markets—Kansas City and St. Joseph, Mo.

For her many surplus domestic products she has, through her western gateways, all the leading cities of the Rocky Mountain and Pacific Coast states, with their thousands of small towns and cities engaged in mining and other industries, all big consumers of the products of the soil. Through her northern gateways there is a great distributing territory to the Canadian line. Through her southern gateways she has access to practically all the cotton producing states, and through her eastern gateways she is in a position to serve economically all the Atlantic Coast States.

The products of the State of Kansas reach all parts of the world.

For foreign export business, her geographical position is such, that all Pacific and Atlantic seaports are at her economical disposal, and especially well located with reference to the Gulf of Mexico ports, such as Galveston, New Orleans, etc.

The producer in Kansas is fortunate in being so located that he enjoys and reaps the benefit of keen competition for his products. As they are absolute

necessities, the Kansas farmer can truly say "MY MARKET IS THE WORLD."

SCHOOLS

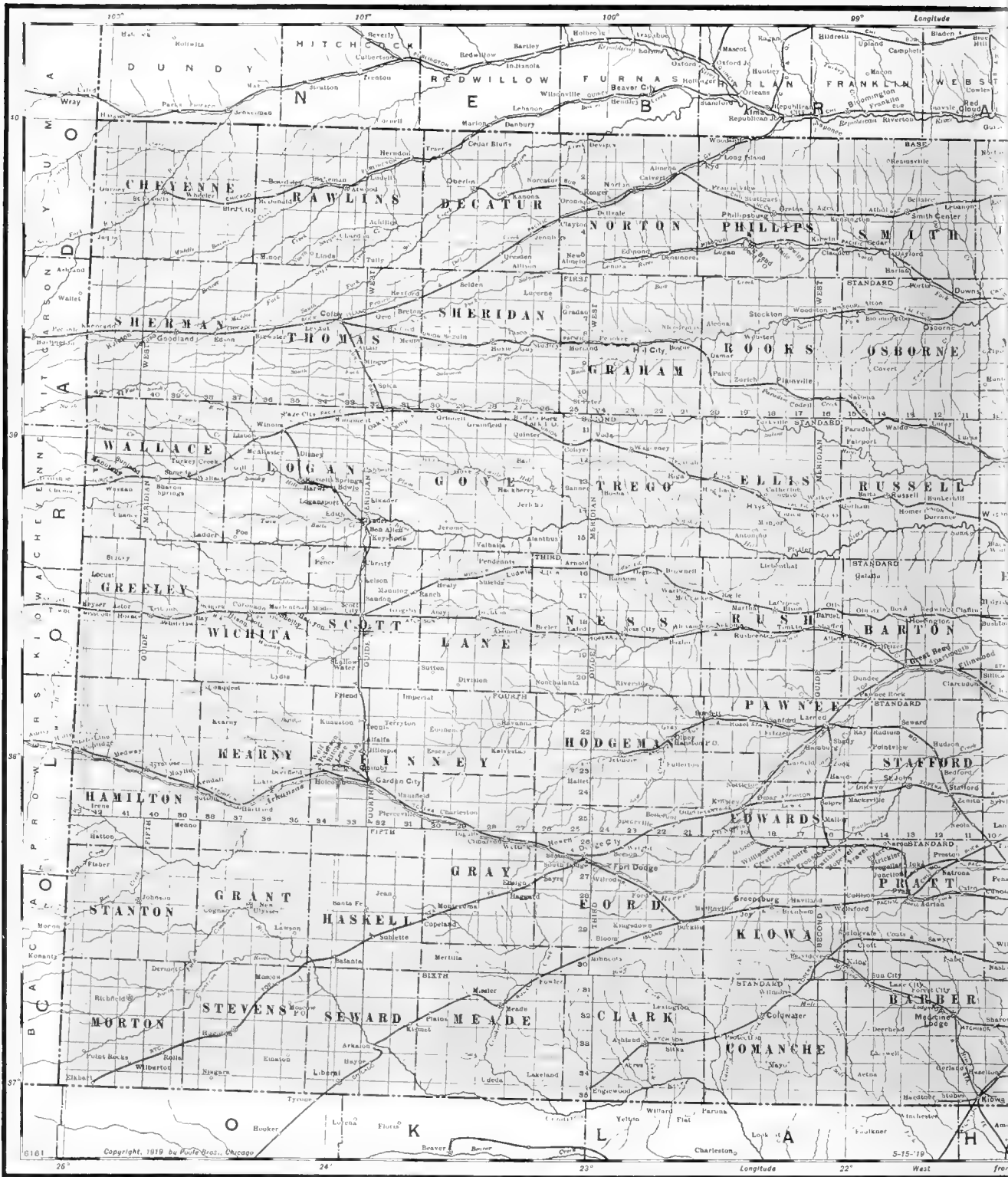
Lorraine Elizabeth Wooster, Superintendent Schools for Kansas

While the best things in school work cannot be reduced to figures, the public interest may be shown fairly well by the fact that, during the school year of 1917-18 there were enrolled in the public schools 405,319 pupils and 15,909 teachers. There are 7,293 school libraries containing 766,155 volumes.

The rural schools are making rapid advancement. Many of the older buildings are being replaced by modern schools with provision for all of the new school activities. Utility and beauty are uniting in giving Kansas some of the very best modern school buildings. Many rural schools are teaching agriculture. This is a new feature of school activity promising much for the welfare of the agricultural communities.

The 1919 Legislature passed many constructive bills for the benefit and improvement of the Kansas schools. There are ample school facilities for every county in the State. There are 9,439 public schools in the State and so well distributed that every child has an opportunity to get a good education. Kansas has only 2.2 per cent of illiterates. She is one of the eight states of the union (all of which are western) which has less than 3%.

For higher instruction, the following State Institutions are available:



MAP OF KANSAS

Star Indicates County Seat

Scale of Statute Miles





Kansas Farmers' automobiles parked during visiting day at the Ft. Hays Experiment Station. Automobiles and good roads make social life easy and pleasant

State University, Lawrence; State Normal School, Emporia; Fort Hays Normal School, Hays; State Manual Training School, Pittsburg; State Agricultural College, Manhattan.

Also private denominational universities, colleges and academies, viz.:

Baker University, Methodist Episcopal, Baldwin; Bethany College, Swedish Lutheran, Lindsborg; Bethel College, Mennonite, Newton; Central Academy and College, Free Methodist, McPherson; College of Emporia, Presbyterian, Emporia; Cooper College, United Presbyterian, Sterling; Fairmount College, Congregational, Wichita; Friends Kansas Bible Training School, Friends, Haviland; Friends University, Friends, Wichita; Highland College, Presbyterian, Highland; Hillsboro Preparatory School, Private, Hillsboro; Kansas City University, United Brethren, Kansas City; Kansas Wesleyan University, Methodist Episcopal, Salina; McPherson College, Church of the Brethren, McPherson; Midland College, Lutheran, Atchison; Mt. St. Scholastica's Academy, Catholic, Atchison; Nazareth Academy, Catholic, Concordia; Northbranch Academy, Friends, Northbranch; Ottawa University, Baptist, Ottawa; Southwestern College, Methodist Episcopal, Winfield; St. Benedict's College, Catholic, Atchison; St. John's Lutheran College, Winfield; St. Mary's Academy, Catholic, Leavenworth; St. Mary's College, Catholic, St. Mary's; Tabor College, Mennonite, Hillsboro; Washburn College, Undenominational, Topeka.

Kansas points with pride to her educational advantages and facilities.

COMMUNITY LIFE

W. Burr, in Charge of Rural Organization, Agricultural College

In the spring of 1914, the State of Kansas began a definite community development movement which has spread over the entire State. Wherever the activities of this movement have been carried there has been developed gradually, but surely, a healthful community life established along the most modern lines.

Kansas has always been a State of churches, and there are many outstanding instances of community churches rendering service, according to modern ideals, to all of the people.

Among farmers' co-operative organizations the Farmers' Union and the Grange are both very strong, not only in their particular economic lines, but also as providing social activities for farm people. The County Farm Bureaus are being organized by the farmers as rapidly as available Government and State funds will permit, and the ruling tendency of these organizations is to bring all groups of the county together in a larger social union. The man who locates in a Kansas rural community will find, in the realms of education, social life, religious activity and agricultural welfare, the Government and State agencies solidly back him to assure his happiness and success.

Kansas has been a prohibition (bone dry) State since 1876.



There are thousands of acres in Southwestern Kansas irrigated from flowing artesian wells.
This land is especially adapted to the raising of alfalfa

The bulk of her population is good sturdy American stock.

Of her 1,672,545 people, shown in the census of 1915, 1,557,279 are classed as native born Americans; of whom 908,924 were born in the State. Foreign born population totalling 115,276, from Great Britain, France, Scandinavia, Germany, Russia (Mennonite), Spain, Italy and other countries contribute 2,700.

Kansas has only 2.2 per cent of illiterates.

The character of its inhabitants is generally a fair index as to the desirability of a State or community from a residence standpoint. Kansas is a good State to live in.

The Lindsborg Chorus

George K. Andrews

In Easter Week at Lindsborg, a town of 2,000 people, may be heard the very best music of its kind in the world.

The chorus of five hundred voices sang the "Messiah" more than one hundred times and is acclaimed by competent judges, and especially those who are also great artists, as being the best oratorio chorus in the world.

Special trains carry thousands to Lindsborg every year, and thousands come in automobiles.

This is one of the musical events of America.

R. I. Throckmorton, Professor of Soils, College of Agriculture

The soils of Kansas rank very high in plant food content. This is due in part to the way in which the soils have been formed, and in part to the fact that they have not been subjected to extreme leaching since their formation, as have the soils of more humid regions. The native grasses that grew and died on the plains returned large quantities of organic matter to the soil. These soils contain sufficient quantities of plant food to produce large crops for centuries.

The soils of the eastern section of the State are, as a whole, very productive and well adapted to the growing of general farm crops.

The soils in the central part of the State are typical limestone soils, and are well adapted to all kinds of farm crops. Alfalfa, and other legumes do especially well because of the high lime content.

The bottom lands along the Kansas and Arkansas rivers and their tributaries are very productive and easily handled. The soils of the Arkansas River valley are underlain at a comparatively shallow depth by water-bearing sands and gravel from which water can be secured for irrigation.

South of the Arkansas River and extending from Colorado eastward, approximately half way across the State, is a body of soil that has been formed from the weathering of sands, gravels, silts, and clays, that



Corn yields in Kansas range from twenty-five to eighty bushels an acre.
This corn averaged seventy bushels

have been carried there from the higher lands farther west. These soils contain an abundance of plant food and are especially high in potash. Their producing power is limited by lack of moisture rather than lack of plant food. A considerable portion of this area in the southwestern part of the State is valuable only for grazing purposes.

The soils of northwestern Kansas have been formed largely by wind action and consequently are very uniform. These soils are very deep, of excellent tilth, and high in plant food content. They are adapted to all classes of general farm crops as far as climatic conditions permit. Considerable care must be used in cultivating these soils, because if they are broken down to a very fine condition they are subject to blowing. However, if the surface soil is kept rough there is little danger of injury from this cause. The lister should generally be used in preference to the plow in this section, and the soil should always be cultivated so that it will remain in a ridged condition.

The sand dune section of Kansas is very limited and occurs almost entirely as a long, relatively narrow band, south of the Arkansas River. This area comprises shifting sands that are of little value for agricultural purposes. A few local areas produce some pasture, but, as a whole, these soils cannot be depended upon to furnish pasture during the hot dry portion of the year.

Alkali is not abundant in the soils of Kansas, and there are but a few local areas where it interferes with

normal crop growth. Most of these so-called "alkali spots" occur in the Arkansas River valley, or as small seepage areas on the upland. There are many soil areas in the State that have light-colored surface soils, called alkali soils, but which do not contain alkali.

CORN

C. C. Cunningham, Assistant Professor of Agronomy,
Kansas State Agricultural College

Corn is one of the most important crops grown in Kansas. It ranks first among all Kansas crops in number of bushels produced and second in value. During the ten-year period 1908 to 1917, inclusive, over 113,350,000 bushels of corn were produced annually. In sections where it is well adapted corn is more extensively grown than any other cereal. It not only produces large yields of grain, but it is an excellent forage and silage crop. Corn is a one-man crop. Although considerable labor is required, it can be so distributed that one man can readily grow from fifty to two hundred acres, depending on the locality. Most of the corn grown in Kansas is produced in the eastern half of the State. In western section it is not as reliable or as profitable a crop as the grain sorghums (kaffir, milo, etc.).

In western Kansas it is very important to plant well acclimated varieties only. The longer a variety has been grown in that part of the State the more likely it is to give satisfactory results.



Kansas produces corn, grain, sorghums, alfalfa and mill feeds in abundance—the prime feeds for profitable pork production. The newcomer should have enough pork to furnish the winter meat supply.

More cultivation than is necessary to control weeds and keep the ground in condition to absorb moisture does not pay in Kansas. It is always important to keep the ground in condition to absorb readily heavy dashing rains. Putting the surface soil in fine dusty condition should be avoided. Such soil does not take up water readily. Newcomers should consult experienced farmers and the County Agricultural Agent as to the best varieties and methods of tillage.

HOG PRODUCTION IN WESTERN KANSAS

E. F. Ferrin, in Charge of Swine Investigation, Agri. College

The hog is the most profitable animal under average farm conditions. Corn and hogs are a profitable team and the lard-type hog is one of the most efficient means of marketing the corn crop. In sections where corn is not a sure crop, the grain sorghums can be relied upon and are equal in feeding value. The experience of late years has shown that by using forage crops pork can be grown more cheaply than it can be made in the dry lot. Under conditions where alfalfa does well, it is the top-notch crop for producing pork. It comes more nearly being an essential crop in the making of cheap pork than does corn. Sweet clover, which can be grown in many sections where alfalfa cannot be profitably produced, is also becoming a great forage crop.

Wheat shorts is one of the very best feeds for hogs, at any time from weaning to market. Kansas is one

of the great wheat producing states and much of its wheat is milled at home. Under normal conditions shorts is plentiful and reasonable in price. There are two important advantages which Kansas farmers who raise hogs have over many of their competitors—first, the alfalfa crop, which does well in many sections, and sweet clover, which does well in almost every county, and second, the by-products of wheat.

There is a growing demand for feeder pigs. Many hog feeders are looking to the Kansas City market for these pigs. Arkansas, Texas and Oklahoma have contributed many thin hogs to be given the corn crib cross, but Kansas is nearer and can supply more nearly the kind of hogs feeders want. Regulations governing the shipment of feeder pigs have recently been modified so that they can be handled as easily as feeder steers. This demand makes a splendid market for the hog raiser, located in the sections of limited rainfall. Western Kansas hog raisers have a double choice for marketing. If feeds are available the hogs may be finished; if not, they may be sold as feeders.

Shorts and alfalfa pasture will keep pigs growing in thrifty, healthy condition. Kaffir, milo, feterita or corn may be added and will give larger gains, but little of these feeds is needed until the fattening stage begins. A growthy pig, weighing seventy-five pounds in October, is ready to be sent in as a feeder or to go into the fattening lot at home. Corn is not necessary to finish them. The Kansas Experiment Station has



A Kansas sorghum field that produced twenty tons of silage to the acre.
Sorghum silage is equal to corn silage for feeding

found that ground kaffir, milo or feterita will make practically as good gains and as a rule at a cheaper cost.

SORGHUMS

C. C. Cunningham, Assistant Professor of Agronomy

Sorghums in western Kansas take the place that corn occupies in the Corn Belt States. They are grown for grain, forage, and silage. It has only been during the last decade that sorghums, especially the grain sorghums, were given proper recognition among the crops of Kansas.

Reports of the secretary of the State Board of Agriculture show that for this State as a whole sorghums have been more profitable than corn. The difference is especially marked for central and western Kansas.

Sorghums are resistant to drought and heat, and produce good yields on soils too poor to grow most other crops profitably.

Sorghums will frequently remain dormant during periods of drought that kill corn, and when rain comes later revive and mature a crop.

Sorghum for silage and forage will out-yield any other crop grown for this purpose anywhere in the State, regardless of soil, elevation, or length of the growing season. This has been verified by numerous tests. The feeding value of sorghum silage or forage is approximately the same as corn.

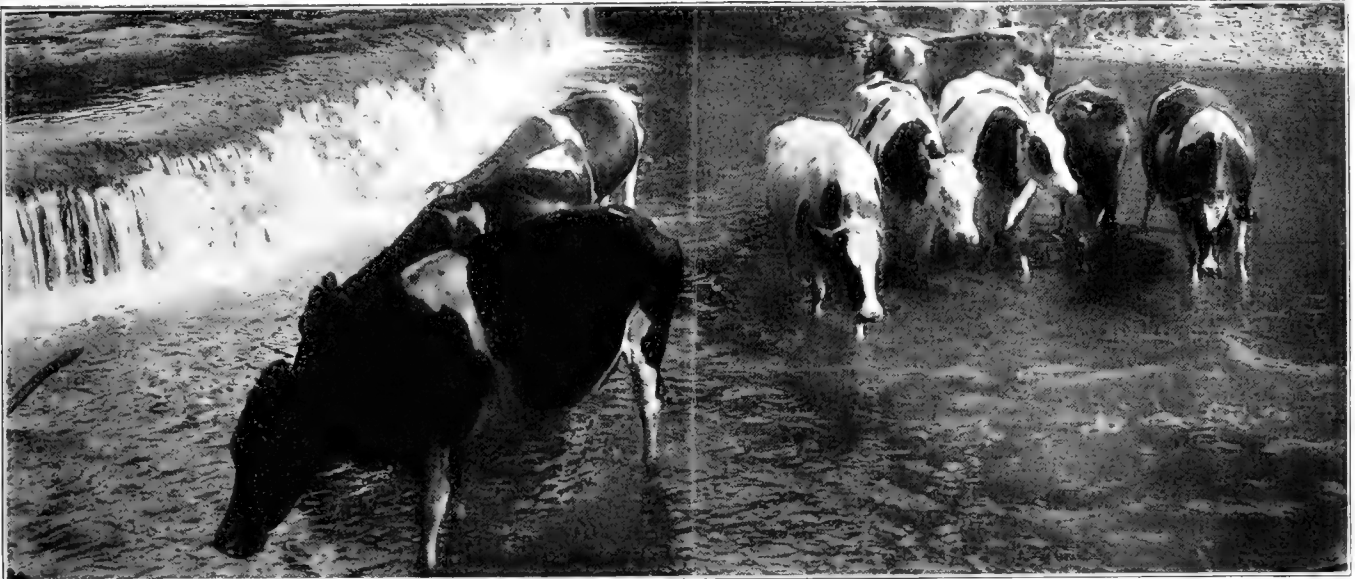
Crops like winter wheat or spring small grains should not follow sorghums. Better results are secured if late planted crops, like corn, which make their development during the latter part of the growing season, follow sorghums. In western Kansas it is often advisable to summer-till land that has produced a heavy crop of sorghum, if it is to be sown to wheat.

Sudan grass is the only variety of the hay sorghum group extensively grown in Kansas. It differs from the other sorghums in that the stems are fine and not juicy and the plants stool very abundantly. From fifty to two hundred stems from one seed are not uncommon. Sudan grass is superior to millet for hay. It is very palatable and is greatly relished by live stock. It has been referred to as "Alfalfa" of the uplands of western Kansas.

The sorghum family of plants is of great value to western Kansas. It makes it possible for the live-stock farmer to provide suitable feed for his live stock, it provides reliable cash crops, and when properly utilized it makes it possible for the western Kansas live-stock farmer to compete successfully with those of the Eastern States.

Broom Corn, a Great Cash Crop

Kansas and Oklahoma are the two great broom corn producing states. Wichita is the largest broom corn market in the world, while Liberal, Kan., is the



Dairying is a very profitable and rapidly growing line of farming. It is especially profitable in the western part of the State. Kansas raises her own dairy feeds

center of the largest broom corn district in the United States. This crop is grown in many other localities in Kansas.

The climate of central and western Kansas is especially well adapted for the production of a good quality of broom corn brush. Clear dry weather with plenty of sunshine usually prevails during the harvesting period, thus permitting the harvesting of the brush without damage from rain or heavy dews.

It is advisable for a beginner to make a thorough study of the industry, preferably under actual working conditions, before undertaking to become a broom corn grower.

It is very important to grow a pure, well-selected, strain of broom corn.

PRODUCING BEEF

C. W. McCampbell, Prof. Animal Husbandry, Agricultural College

The beef cattle industry divides itself into three separate lines of endeavor—raising feeders, finishing cattle produced by some one other than the producer, and finishing cattle on the same farm where they are produced. Kansas is splendidly adapted to all three lines of beef production. In western Kansas conditions are particularly favorable to the production of rough feeds and feeder cattle for which there is a ready demand in the eastern part of the State. The advantages of this section are cheap nutritious grass and cheap, but efficient, winter feeds in the form of sorghum

crops, alfalfa and straw. The value of these feeds has been well demonstrated by numerous tests.

Great opportunities exist for the expansion of the finishing territory by a more general appreciation of the value of the grain sorghums for fattening cattle. Tests show that for all practical purposes a pound of kaffir is equal to a pound of corn for fattening cattle for market.

Eastern Kansas offers splendid opportunities for producing and finishing cattle as well as finishing cattle produced in the range and semi-range sections. Splendid pastures, large acreages and abundant crops of clover, alfalfa and corn, with three splendid markets, Kansas City, Wichita and St. Joseph easily accessible, make this section one of the most desirable cattle finishing sections of America.

DAIRYING.

J. B. Fitch, Professor of Dairying, Agricultural College

That the farmers of Kansas are coming to appreciate the favorable conditions and profit in dairying in their State is shown by the fact that during the last ten years more than sixty thousand special-purpose dairy cattle have been shipped into Kansas from the older dairy sections in the North and East. The demand for high-grade and pure-bred dairy cattle is still very great.

Kansas has many conditions favorable for dairying which are not available in many well-established dairy



A feeding combination common in Kansas. The State has the feed and climatic conditions to produce beef and pork economically, and abundantly

communities in the north and East. She grows her feeds at home. Dairy men in the North and East pay market prices for Kansas alfalfa, plus freight, and yet feed it to their cows at a profit. To balance this feed they use silage which Kansas can produce more cheaply than they can. The Kansas farmer does not rely altogether on corn. In addition to corn he produces cane and kaffir for silage and grain. In purchasing concentrated feeds the Kansas farmer has an advantage, as the State produces an excess of bran and other mill feeds. Cottonseed and oil meals can be secured from adjoining states.

Feeding tests and results obtained by dairy farmers have shown that alfalfa hay and corn, or sorghum silage, makes the best and cheapest combination of feeds for dairy cattle. The farmers of Kansas are fortunate in that these feeds can be produced abundantly in the State.

The climate, with its long growing season and short winters, is well adapted for dairying. Expensive farm buildings are not necessary. The dairy industry is rapidly growing in the western part of the State, where the quick returns especially appeal to the man with small means.

The type of cow being milked is constantly being improved by the use of pure-bred dairy bulls and better methods of selection.

The bulk of the State's butter fat and milk is produced by the small farmer who has three or more

cows. There are over two thousand cream stations in the State which buy for about sixty large creameries furnishing a ready market for butter fat. The farmer who sells butter fat uses his skim milk to great advantage as a feed for poultry and pigs. There are seven condenseries which buy whole milk and there is a great demand for whole milk near the larger towns and cities.

SILOS

J. B. Fitch, Professor of Dairying

The silo is fast becoming a necessity to the live-stock farmer in Kansas. It is only within recent years that farmers have discovered that the sorghums make excellent silage. Since the use of sorghums for silage has become extensive, there has been a much greater demand for silos. Farmers in the western part of the State, especially, have learned that the silo is the best possible insurance.

They have found that in this section a silo can be had at a very small expense. The pit silo—which is becoming very popular in the drier sections of the State—can be built without expert labor, and at an actual cash outlay of not to exceed 25 cents per ton capacity, for the cement and hoisting apparatus. It is very easily constructed and entirely satisfactory. It requires no expensive machinery for filling, and can be filled with a small outlay of labor cost. The pit silo is practical for a man with a few head of live stock.



This pile of wheat contains three hundred carloads. Kansas leads all other states in wheat production. The yields range from ten to fifty bushels an acre

By its use 100% of the crop produced can be saved for feeding. The flow of milk from dairy cows can often be increased more than 30% by the use of silage. The grain ration can be reduced at least one-fifth. The value of the forage crop produced can be doubled. The fact that silage properly stored can be kept indefinitely makes it possible to keep on hand a surplus of feed for future use. The man who milks cows or feeds cattle cannot afford to be without a silo. Every man who plans to move to western Kansas should consider the pit silo carefully. It is one of the great advantages of western Kansas. Pit silos will be found in considerable numbers in every dry-land county. Newcomers will do well to visit farmers who have these silos, and plan to put one down the first season for their own use if possible. The county agricultural agent will be glad to assist newcomers with silo problems.

Profit in Raising and Feeding Sheep and Lambs

A. M. Patterson, Assistant Professor of Animal Husbandry,
Kansas State Agricultural College

Kansas, with its dry open winters, abundance of roughage and splendid markets, is well adapted to sheep and wool production. The average farm would be much benefited by a flock of sheep, which could turn waste products into cash, thus saving feeds of commercial value and at the same time increasing the fertility of the soil.

Sheep produce two crops annually, wool in the

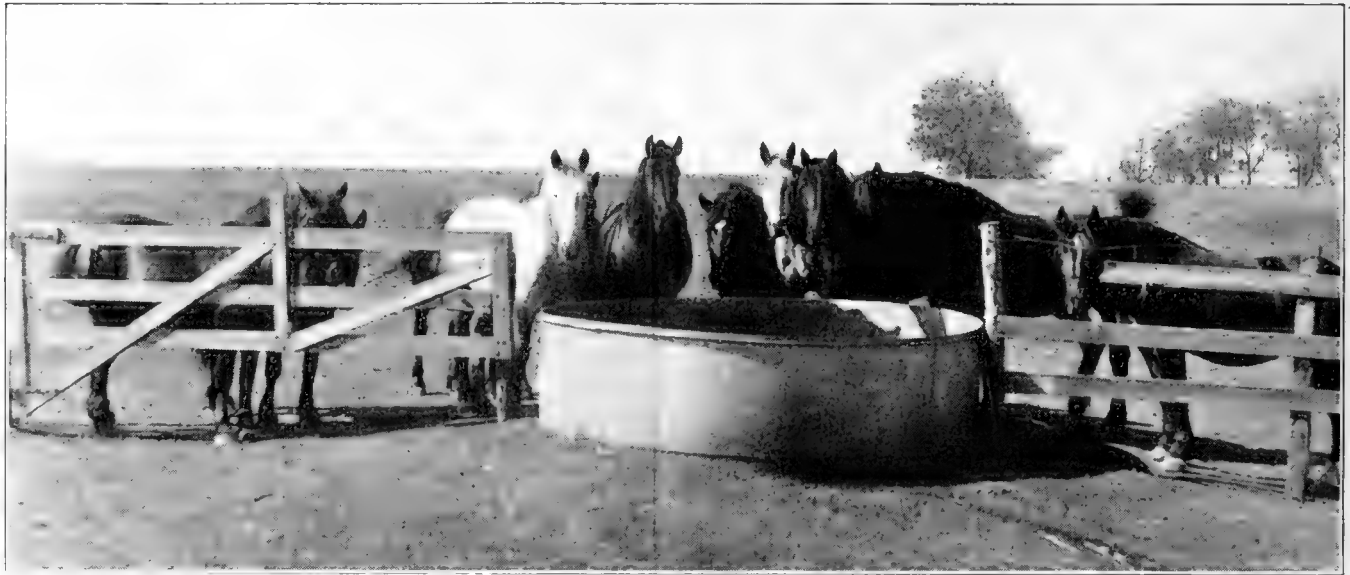
spring and lambs in the fall. At present prices the income from the wool will almost pay for the ewe's keep. The value of sheep as soil improvers should not be overlooked. There is no class of live stock better adapted to building up the soil than sheep.

Sheep are noted as weed exterminators. Not only will sheep rid the fields of weeds, but will turn them into a marketable product and return the fertility of the soil to the land in the form of manure. Rape and sudan grass, sown in waste places for pasturing sheep, improve the appearance of the farm and are the means of making extra profits. Road sides, lanes and fence corners may also be kept clean and tidy by the use of a flock of sheep.

Whether grade or pure-bred sheep are to be raised depends upon the knowledge the beginner has of the business. For one who has had no experience it is best to buy good grade western ewes and a pure-bred ram. After obtaining some experience, the pure-breds may be purchased. Careful study of market conditions should be made in order to make the greatest profits. There are great opportunities in western Kansas for the production of feeder sheep for which there is a constantly growing demand in the eastern part of the State. Kansas City is a great distributing market for feeders.

Wheat

S. C. Salmon, Professor of Crops, Agricultural College
Kansas leads the world in the quantity and quality of the wheat she produces. No state in the United



A bunch of well-bred brood mares. Rich limestone pastures and excellent alfalfa make strong-boned, rugged colts. There are more than three thousand pure-bred draft stallions in the State

States, and no political subdivision of a similar size in the world, produces more wheat on the average.

Nearly eleven million acres of wheat, the largest ever put out by a single state, was sown in Kansas in the Fall of 1918. The pre-war acreage was nearly eight million acres. This is too much wheat for Kansas to grow on the average in proportion to the live stock and the acreage of other crops. The aim of Kansas farmers for the future should be not more acres of wheat, but more wheat on fewer acres. The new or prospective settler in the wheat belt will do well to keep these facts in mind and remember that his chances of growing good crops of wheat will be increased—and he will continue to grow wheat longer—if he invests a part of his capital in live stock and grows sorghum crops for feed rather than depend on wheat alone.

Most of the Kansas wheat crop is grown in the central part of the State. Wheat does well in eastern Kansas, but so many other crops give profitable yields that wheat plays a relatively unimportant role in the agriculture of this area.

In extreme western Kansas, wheat is somewhat uncertain because of severe and protracted droughts. In favorable seasons excellent yields are obtained. Considering the low price of western Kansas lands the wheat grower often makes a greater profit on his investment than the eastern farmer, even though he does not raise a crop every year. Better methods of

tillage are constantly reducing the element of chance. However, experienced farmers place even more dependence on live stock and the growing of feed crops in this part of the State than in the eastern.

Probably nine-tenths of the Kansas crop is hard winter wheat.

A small amount of spring wheat is sown in north-western Kansas. Winter wheat almost invariably gives better yields, where it comes through the winter in good condition.

The newcomer should study the methods of the most successful farmers and get in touch with the County Agricultural Agent before putting in his crop.

Horses

F. W. Bell, Associate Professor of Animal Husbandry,
Kansas State Agricultural College

Kansas is one of the leading horse and mule producing states. The State is steadily improving its work stock in size and quality, and is producing the kind of horses that meet the demands for efficiency in harness. There are more than 3,000 pure-bred draft stallions standing for public service in Kansas. As the result of the use of such sires, there is a good supply of big draft mares for farm work. The colts produced by these mares, when properly grown out and developed, supply the demand for the best work horses and mules. The rich limestone pastures and an abundance of alfalfa



A farm flock will supply the table and help to reduce living expenses. Surplus poultry products find a ready market and will furnish an immediate cash income. Turkeys are especially profitable in Kansas

aid greatly in the development of rugged colts, with wearing qualities in bone and feet.

Good draft mares furnish the most satisfactory and economical power for Kansas farms. Such mares take care of the farm work at any and all seasons of the year, and return an additional profit in the colts they raise. If these colts are sired by good pure-bred draft stallions they soon reach a size where they can be put into the harness and if they are not needed on the farm they will bring a good price on the market. There is little demand for the small, rough, poorly developed stuff that results from the use of scrub sires on small mares.

Under the benefits of the State stallion license law the Kansas farmer can choose the right kind of stallion to which to breed his mares, since every stallion is licensed as being either a pure-bred, grade or scrub.

The importance of breeding to high-class stallions cannot be overestimated. A good stallion will add many dollars to the market value of a colt, and any extra trouble or time the farmer may take in getting his mares to a good stallion will be well spent.

Poultry

W. A. Lippincott, Professor, Poultry Husbandry,
Kansas State Agricultural College

Kansas is a State of farm poultry rather than of specialized poultry farms. The fact that it is among the first ten states in the Union in the total income

received from poultry products, coupled with the fact that the poultry packing industry has reached a development ahead of that of any other state, indicates that Kansas conditions are favorable for poultry production, and that poultry keeping fits in with the diversified agriculture practiced.

Poultry products are almost exclusively sold as staples and there is scarcely a trading point within the State where a price is not quoted every business day of the year, nor a section in the State where a reasonably well-cared-for general farm flock will not give a highly satisfactory return on the investment. The requirements for success are a good poultry house, rational feeding, and the use of male breeders from high-producing families.

There are opportunities for poultry breeders who may develop high laying families of the breeds popular on general farms. The demand for cockerels from high laying families at present is far beyond the supply.

Every Kansas farm should have poultry. The climate is excellently adapted to its production. Feeds for poultry are produced in abundance. Kaffir, which does exceptionally well in the western part of the State, forms the basis of many prepared commercial poultry feeds.

The farm flock is a very important source of immediate cash income. Eggs are readily saleable and the production of eggs should be planned for from the beginning, not only for table use, but also for market.



Alfalfa yields from two to seven tons an acre and the highest yields are secured under irrigation. Kansas is one of the leading alfalfa states in the Union

Turkeys do especially well in western Kansas. The importance of a small flock of poultry for the newcomer cannot be overestimated.

Alfalfa

S. C. Salmon and C. C. Cunningham

Alfalfa is the most valuable forage crop grown in Kansas. It is also one of the most important of all crops when its relation to the live-stock industry of the State and to the maintenance of soil fertility is considered. No other crop is grown which is so certain to return a profit—or which can be produced more cheaply in proportion to its value. While the total value is exceeded by wheat and corn, no other farm crop produces a greater net profit per acre. Good alfalfa hay has never been excelled as a feed for dairy cows and growing live stock.

Kansas is one of the leading states in the growing of alfalfa. It is doubtful if there can be found another area of equal size so well suited to its growth. The deep fertile soil, well supplied with lime and the mineral elements of plant food, and the generally favorable climate characteristic of central Kansas, would be hard to duplicate. As a matter of fact, alfalfa can be grown in all parts of the State, but is not generally profitable on the uplands of western Kansas, where the annual rainfall is less than twenty-five inches. Production of seed in the western part of the State has proven especially profitable, and is a growing indus-

try. The dry climate makes plump seed of excellent germinating power.

It is not difficult to secure a good stand of alfalfa. The newcomer should get acquainted with the experienced and successful farmers of his community and study their methods. The County Agricultural Agent will gladly aid settlers in getting the best kind of seed and in making a start with alfalfa. Kansas owes much to alfalfa, and newcomers will do well to look carefully into the value of this crop.

Sweet Clover

C. C. Cunningham, Assistant Professor of Agronomy

Sweet clover is a valuable crop in the State. It is extensively grown for hay, pasture, and soil improvement, and its use for these purposes is rapidly increasing. It is also a splendid honey plant.

The common white blossom sweet clover is the variety most largely grown. The yellow blossom kind is also grown, but does not yield as well as the white sweet clover.

Sweet clover is adapted to all the soils of the State, except those which are acid or poorly drained. It grows well on sandy creek and river bottoms in western Kansas and on some infertile soils in eastern Kansas where alfalfa is not generally successful, and in other regions where alfalfa is an important crop. As a rule, alfalfa is a better hay crop where it can be successfully grown, but not so good for pasture and soil



Bees are profitable and they should have a place on every farm.
Large acreages of alfalfa and sweet clover furnish excellent bee pasturage

improvement. Sweet clover rarely causes bloat when used for pasture.

The second season sweet clover can be pastured until some time in June and then left for a seed crop. The seed sells for about the same price as alfalfa seed and the yields are usually heavier.

The greatest value of sweet clover is for pasture and soil improvement. All forms of live stock eat it readily when they become accustomed to it.

Professor M. F. Ahearn, Kansas State Agricultural College

Kansas has the soil and rainfall in the eastern part of the State to produce three, and even four, hundred bushels of potatoes per acre with proper cultural methods; and from seventy-five bushels up in the western part of the State.

The Kansas potato crop is a money maker as the crop matures after the southern potatoes are off the market and before the northern supply is ready for the table. Add to this, good transportation facilities and it is easy to figure that potato raising is bound to be a profitable industry especially along the river bottoms. Every farmer and most city gardeners will be well repaid for time and labor spent in growing enough "spuds" to supply their needs.

Potatoes are deserving of a more important place in the list of Kansas crops and there is a bright future in store for this industry in the State.

Early Ohio and Irish Cobbler are the two leading varieties, but Bliss Triumph is a splendid early variety.

Oats and Barley

C. C. Cunningham, Assistant Professor of Agronomy

Oats and barley are minor crops in Kansas. The former crop is grown quite extensively in eastern Kansas while most of the barley is grown in the northwestern part of the State. Oats are not adapted to western Kansas and rarely give satisfactory yields. Barley is a better crop to grow in this part of the State and should usually be preferred to oats. It rarely proves profitable in southwestern Kansas.

Honey and Bees

Dr. J. H. Merrill, State Apiarist, Agricultural College

The possibilities for profit in keeping bees vary according to the location. Where alfalfa and sweet clover are extensively grown, bee keeping is very profitable. In every part of the State there are sufficient honey plants to support bees with profit. There is little expense required over the original cost.

Bees are not hard to handle, and some knowledge and experience will enable any farmer to successfully manage bees, so that he can produce sufficient honey for his own table, and probably have a surplus for market. There is a place for bees on every farm. The newcomer in the State would do well to look into the possibility of honey production.



A home-made reservoir, easily and cheaply filled by means of a windmill, will furnish plenty of water to irrigate the garden and supply the household and live stock

Trees

Albert Dickens, Professor of Horticulture, Agri. Col.

Trees anchor settlers to the soil. The home that has no garden, no orchard, no shade trees, is often for sale. Trees are an asset that increase the attractiveness and the value of the farm. They can be grown successfully in every part of Kansas and no man should plan on establishing a home without trees surrounding it. A little care and attention is all that is needed to grow trees successfully in the western part of the State.

The preparation of the land for tree planting should begin the year before the trees are planted and should be carefully cultivated to keep out the weeds and store moisture in the soil before planting is done.

A wind break is especially important and desirable in western Kansas, as it tends to reduce evaporation, thus maintaining the moisture content in the soil, protecting and making possible greater crop production. It is also a very valuable protection for live stock during the winter months. There are many varieties of trees that do well. Almost all varieties that are grown in the temperate zone are satisfactory. In the western part of the State, on the uplands, the elm, hackberry, locust, ash, mulberry, red bud, russian olive, osage orange and coffee bean are long-lived and hardy.

Quicker growing trees, such as the cottonwood, poplar, soft maple, or willow may be planted for a quick

growth, to be supplemented later by the more hardy varieties. The evergreens also do well, especially red cedar, which is native to the State and is the most hardy of all the evergreens. Once well established it will withstand almost any hardship.

Pump Irrigation in Western Kansas

Geo. S. Knapp, Superintendent, Garden City Exp. Sta.

Western Kansas has more than a million acres that can be irrigated by pumping. Probably not more than forty thousand acres of this area are now under irrigation, but the irrigated acreage is increasing rapidly. Water for some of this land can be pumped from rivers and creeks, but for the most part it will have to be pumped from wells.

Underlying this area, in strata of sand and gravel at depths of from ten to thirty feet in the valleys and thirty to one hundred feet or more on the higher land, is an abundant supply of water. Wells are made by sinking perforated casings into these water-bearing strata, often going to a considerable depth through a number of strata to get wells of large capacity. By this means it is possible to get wells with a capacity large enough to irrigate a half section or more of land. However, most of the existing pumping plants irrigate 120 acres or less.

Practically all farm crops adapted to the climatic conditions of western Kansas do well under irrigation.



There is a place on every farm for a flock of sheep to convert waste into cash. You will find great opportunities in the western part of the State for the production of feeder lambs which eastern feeders demand

Alfalfa yields from four to six tons per acre under irrigation. Milo and kaffir, irrigated, will yield from forty to eighty bushels per acre. Sugar beets cannot be raised without irrigation, but produce profitable yields when properly irrigated.

A plant sufficient to irrigate 160 acres will cost from \$2,000 to \$6,000, depending upon the depth to water. The cost of pumping can be greatly reduced by using a smaller pump in connection with a storage reservoir. This method is carried out quite successfully by the Garden City Experiment Station, with a pump discharging about seven hundred gallons per minute. This small plant, if it were in operation one-half of the time, from the first of April to the last of September, would pump water enough to cover 160 acres nearly twenty-four inches deep.

The cost of pumping an acre-foot of water varies from \$1.25 to \$6.00 or more, depending upon conditions. This does not include labor.

At the Experiment Station at Garden City it requires, under normal conditions, about one-half acre-foot of water per acre to produce a ton of alfalfa hay.

Alfalfa and the sorghum crops, both grain and forage sorghums, are the most profitable crops grown under irrigation in the western part of the State. Where such crops are properly tended and receive sufficient irrigation water, they will produce good returns on much of the higher upland where the cost of pumping is relatively high.

There is no need for the new irrigator to experiment when installing a pumping plant. Experience, based on the successes and failures of the past, has developed successful types of well casing, reliable tools and machinery for putting in wells, and sufficient machinery for pumping under various conditions.

Truck Market and Home Gardening

George K. Andrews, Missouri Pacific R. R.

No better place can be found than the Arkansas and Kaw valleys for truck and market gardening. Land adjacent to, and between Wichita and Hutchinson and Topeka and Kansas City can be had for \$150 to \$250 an acre, in five and ten acre tracts and of the kind of soil suitable for the purpose. The Arkansas Valley is underlaid by water in abundance at a depth of eight to fourteen feet. Irrigation is not necessary in the Kaw Valley. A five-acre farm can be bought and equipped with Skinner overhead irrigation plant and gasoline engine at a cost of under two thousand dollars. An earth-baked reservoir can be used for surface irrigation and filled by windmill or engine and pump. Crops come in just following the Texas and southern crops and just ahead of the northern crops, thus affording a sure market. Carload shipments are in demand from both northern and southern states.

Two crops a season can be raised and there are more truck and market crops consumed in Kansas alone than are now raised there.



Corn ranks first among Kansas crops in total number of bushels produced and second in value; a big factor in her live-stock production

Every farm should have a home garden. There is no part of the State of Kansas that cannot profitably produce the usual garden crops. The growing of a garden will do much to reduce the cost of living and the newcomer should plan on having a garden as soon as possible. But little expense is required and the returns are worth many times the original cost. Every effort should be made to reduce the living cost the first year. A garden, along with chickens and a few cows and some pigs, will practically keep the family.

Fruit for Home Use

Albert Dickens, Professor of Horticulture, Agricultural Col.

No farm home is complete without a family orchard sufficient in size to provide fruit for the use of the family. The home orchard adds much to the value of the farm. But little experience in fruit growing is necessary to produce sufficient amount for home use. There is no part of Kansas that will not produce a good home orchard. In the eastern and central parts of the State there are many large commercial orchards.

In the western part of the State the ground should be well cultivated, and the weeds kept out, and the moisture stored before the trees are set out. The trees should be carefully cultivated each season in order to keep them well supplied with moisture.

Trees should not be set too close together, especially in the western part of the State. A very common

mistake is to plant too many trees per acre. Garden crops may be grown between the trees, but it is not well to attempt to produce too much from the dry-land orchard. It must be remembered that moisture is the limiting factor in production, in the western part of the State, and every care should be taken to preserve as much moisture as possible for tree growth. Where practical, a windmill and small reservoir for irrigation will aid greatly.

Cherries and plums are especially hardy and do well in all sections. There are many varieties of apples that do well. Early varieties perhaps are more successful, as a whole, than the winter varieties. Early Harvest, Red Astrachan, Duchess, Copper's Early, and Wealthy apples do well in nearly all parts. Winesap is the most popular winter variety. Grimes Golden and Jonathans do well. The York Imperial, Rome Beauty, Stayman Winesap and Delicious are meeting with favor.

The Rivers and Streams of Kansas

Alexander Jackson

As a rule the majority of people residing east of the Missouri River labor under the impression that Kansas is a flat, treeless country, lacking in rivers or streams of any importance.



Grain sorghums and healthy children are sure crops in Kansas. The value of the grain sorghums was more than \$61,000,000 in 1918. During 1918, 403,319 pupils attended the public schools

In riding through or visiting the State for the first time, one of the greatest surprises is to find many important and beautiful rivers and picturesque streams, well lined with trees, adding beauty to the landscape.

The principal rivers traversing the State are the Arkansas, Big Blue, Chikaskia, Cimarron, Elk, Kansas, Missouri, Osage, Republican, Saline, Smoky Hill, Solomon and thirty other rivers, named in any commercial atlas.

In addition to the above, there are two hundred and sixty smaller streams designated and featured on the atlas as "creeks."

This will give some idea as to the amount of bottom land especially adapted to the raising of alfalfa.

Road Building

W. C. Markham, Secretary, Kansas Highway Commission

The Federal Government has allotted almost \$8,000,000 to be spent in road construction in Kansas during the next thirty months. This sum is tenth from the top of the amounts given to the forty-eight states.

The people in Kansas now realize that better roads mean better marketing facilities and improved social life.

The next five years will see wonderful development in the great natural resources of the State. A perfected road transportation system is at hand.

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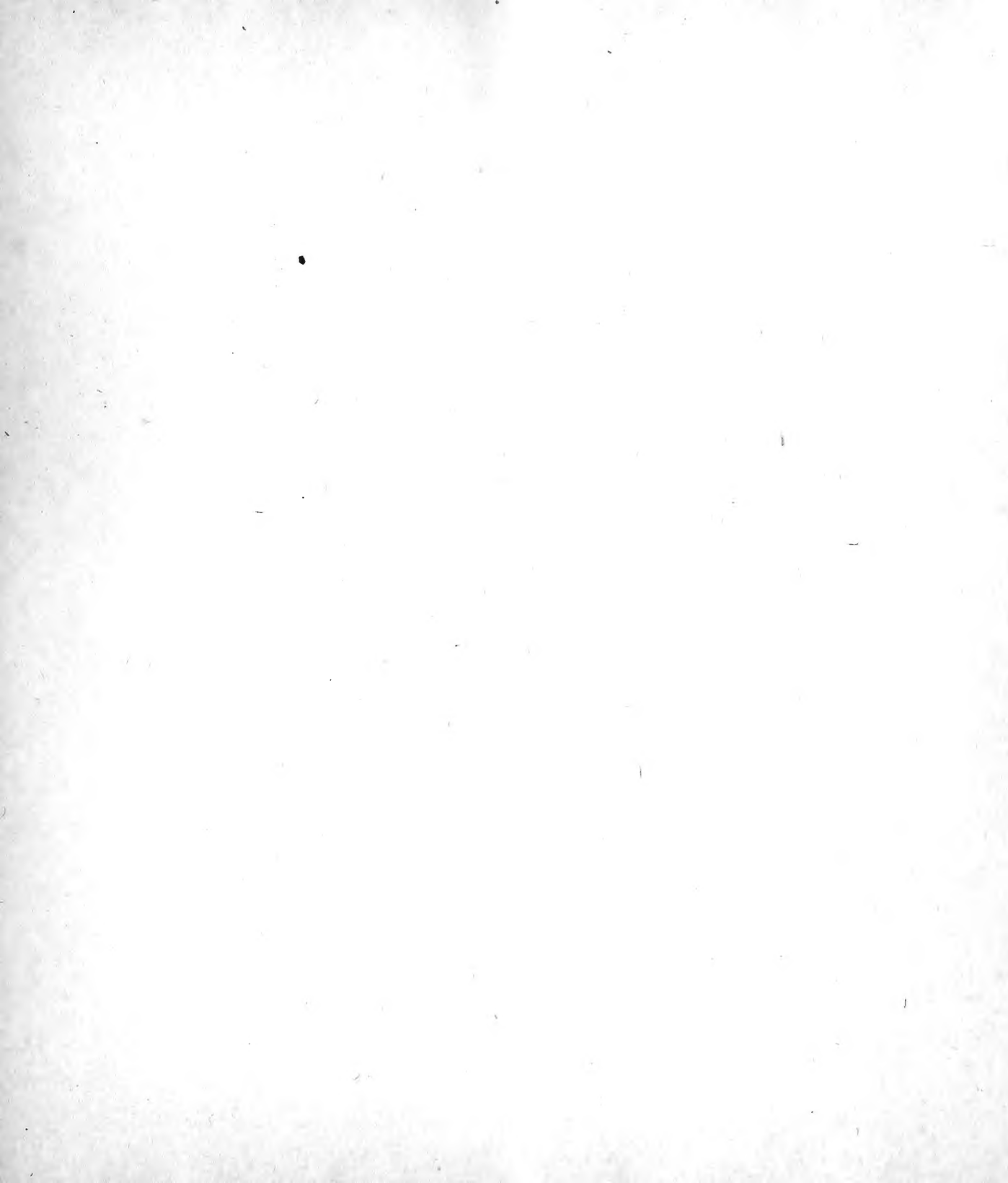
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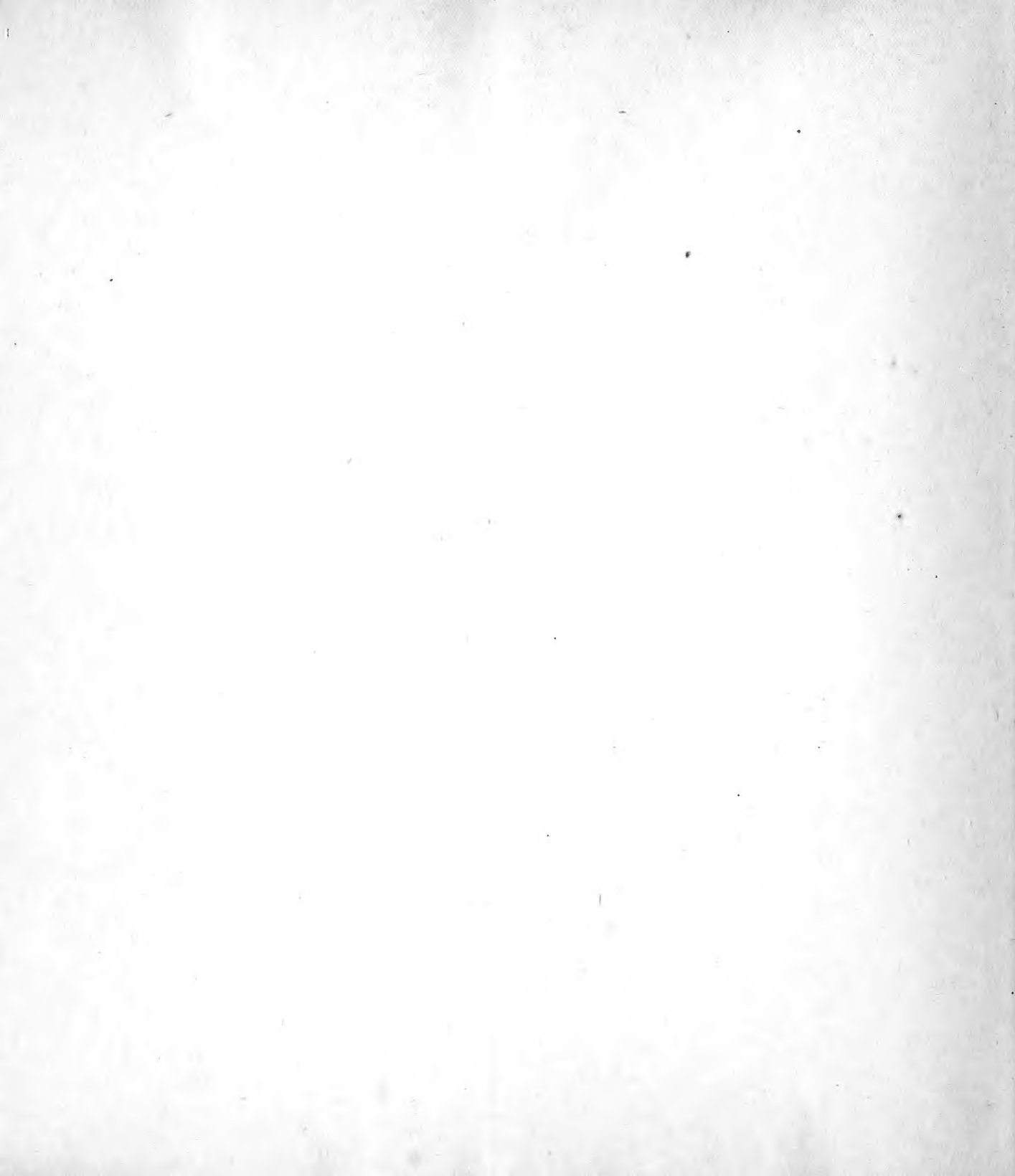
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