

Dept. of Ag., U.S.

# KANSAS FARMER

FOR THE IMPROVEMENT OF THE FARM AND HOME

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## Soils and Conservation of Fertility

"I now believe there is a scientific agriculture." This is the statement made by a prominent business man of Topeka who listened to the address made by Dr. J. T. Willard of the Kansas State Agricultural College before the Shawnee Alfalfa Club at its June meeting. This business man has had no connection with farming interests in a practical way, and had remained in the ranks of the "Doubting Thomases" until after he had listened to Doctor Willard's address.

Doctor Willard chose for his subject, "Soils, and the Conservation of Fertility," and there was a number of valuable points suggested by him that will be carried home and treasured by members who were present.

It seems that Kansas had had no leguminous crop until the advent of the alfalfa plant. This plant plays a very important part in the maintenance of soil fertility but not so much as it has been given credit for by many people. Soils are composed very largely of mineral matter, with a much smaller amount of vegetable matter and a still less amount of animal remains. There are about twelve or fifteen chemical elements in all kinds of plants though only a few of these are really important from an agricultural standpoint. All of these elements are derived by the plant either from the soil or from the air. The four important elements of potassium, phosphorus, calcium and nitrogen are those most generally necessary to consider by the farmer and of these the first three named are derived from the rocks and the last from the air. Nitrogen is one of the most important elements of plant food and it gets into the soil very slowly in three ways. Electrical discharges produce oxide of nitrogen in the air and this is washed into the soil by the subsequent rainfall. Nitrogen may be acquired by the soil through the application of fertilizers that are rich in ammonia. With a little start micro organisms can grow in the soil and develop more nitrogen. Some of these have the power of taking free nitrogen from the air and it was reckoned a great advance in the economy of nature when nitrogen producing bacteria made their home upon the roots of plants.

These bacteria most generally live and thrive upon the botanical family known as the legumes and most of the nitrogen in the soil now comes from the growth of these plants and the development of nitrogen producing bacteria on their roots.

Alfalfa is the salvation of the soil if rightly handled, but the idea that it is a general fertilizer is all wrong. No legume is or can be a general fertilizer. The legumes supply nitrogen to the soil and if an occasional crop is plowed under as green manure they supply humus as well. If legume hay like alfalfa, clover, cow-peas or soy beans, is sold off the farm and no nitrogenous fertilizer applied to it, the farmer is robbing his own acres and is really mining his land instead of farming it.

The heavier the yield of alfalfa hay the greater is the drain upon the land. This is true of any crop, and a heavy yield leaves the land poorer with each harvest. The action of the elements may serve to dissolve and render available the mineral foods like phosphorous, potassium or lime,

### Alfalfa Is the Salvation of the Kansas Farm If Rightly Handled

but they can not restore the nitrogen, without which plants can not grow. The farmer who continuously crops his land without manuring it is like the man who draws upon his bank account without adding to it. He may have his checks cashed by the banker for a while, but there is sure to come a time when he will overdraw his account. Many farmers overdraw their accounts with the soil very early in their experience.

The alfalfa plant has a selective power and will vary in its composition with the soil in which it is planted. Any plant which produces a heavy yield will remove a proportionate amount of mineral elements, and it is known that alfalfa removes more phosphorous from the soil than any other crop. Kansas soils are all deficient in phosphorous, and this fact provoked a remark on the part of the Professor, that while alfalfa rightly

handled is the salvation of the Kansas farm if wrongly handled it may prove its condemnation.

The maintenance of the fertility of the soil is a much simpler matter than is its restoration after it has once been depleted or exhausted. Men are now actively interested in restoring the fertility of their farms, when they should have begun with its maintenance thirty years ago.

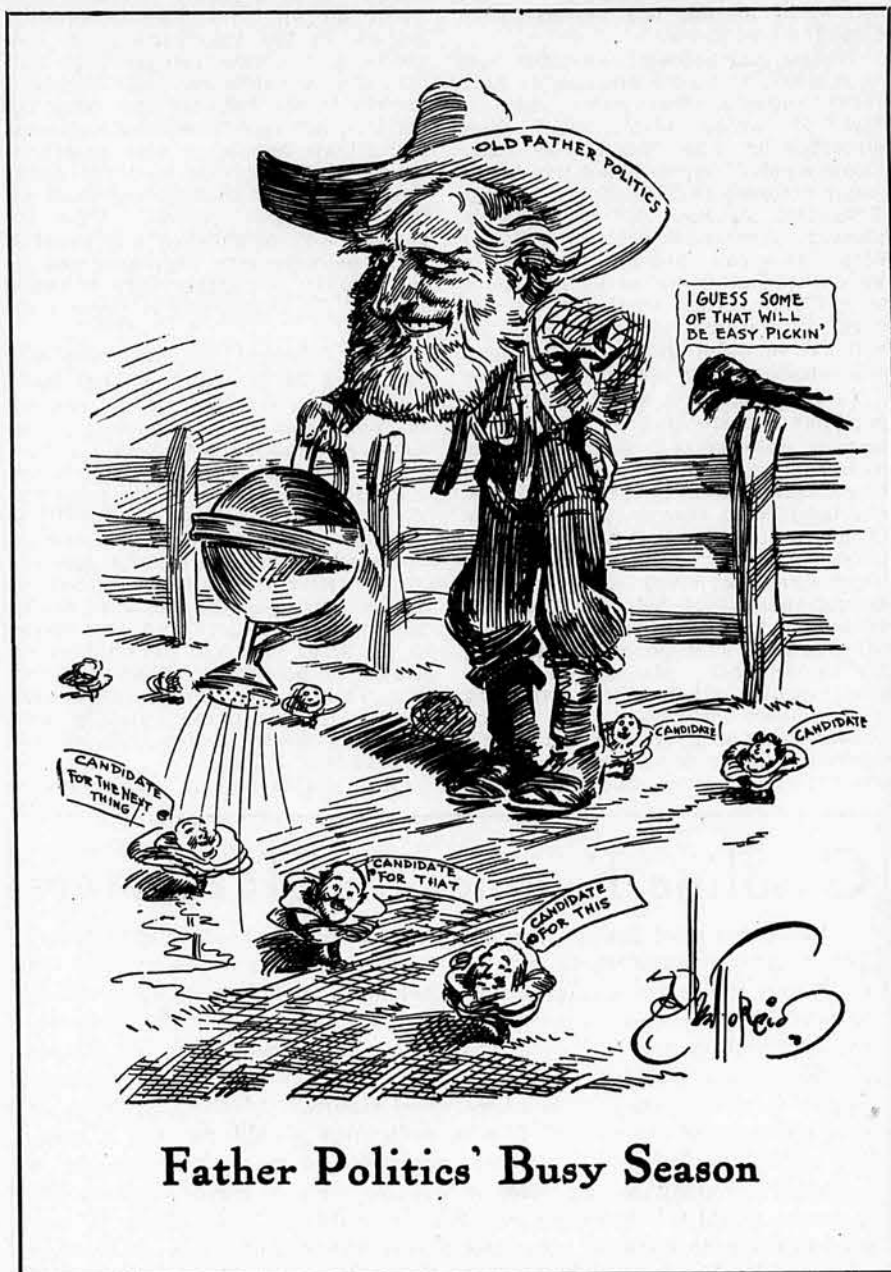
If soil is deficient in nitrogen it can be restored by the use of saltpetre, tankage, or the growth of alfalfa. The initial cost of the commercial fertilizers is practically prohibitive, so the Kansas farmer has a cheap and easy way of restoring nitrogen to his soil by the use of barnyard manure and the growing of alfalfa. A wheat crop will take from the soil about \$7.00 worth of nitrogen per acre each year but can not restore one particle. For this reason large areas in

the wheat belt have been turned to other crops and a rotation has been forced upon wheat growers, who formerly raised nothing but this cereal.

There must be at least twelve thousandths of one per cent of potassium in the soil, as the minimum amount required for crop growth. Kansas soils average about ten times above this minimum. In order to produce a crop the soil must also possess two hundredths of one per cent of phosphorous as a minimum. Kansas soils show as low as twenty-seven thousandths of one per cent, and are therefore very low. Nitrogen is also low in Kansas soils, which are yet in their native state. It is therefore true that nitrogen and phosphorous are the only two elements of plant food about which the Kansas farmer need have any particular care, and the growing of alfalfa will provide an ample supply of nitrogen from the air.

Phosphorous is the real problem in agriculture today. The beds of guano found on the islands of the seas and the beds of rock phosphate found in a few isolated deposits in the United States, are both being rapidly exhausted. Unless some new source of phosphoric acid is discovered the source of artificial fertilizers for this element of plant food will soon be gone. If crops are grown continuously and sold off the farms, the time will surely come when the soil will be depleted and become non-productive. As Kansas soils are naturally low in phosphorous, and as this is the only element of importance that is difficult to restore to the soil, the only salvation for the Kansas farmer is to stop selling his crops off his farm and feed them to animals who will manufacture them into beef, pork or butter, and at the same time produce large quantities of manure, which is relatively rich in this important element. Nitrogen may be secured from the air, through the growing of leguminous plants. Potassium is so plentiful in Kansas soils that it need cause no immediate worry, but phosphorous must be supplied by artificial fertilizers, barnyard manure or the practice of plowing under crops for green manuring.

Reckoned at commercial prices for potassium and phosphorous, the value of the manure from one horse is stated to be \$28.83 in one year; from one cow, \$6.25; from one sheep, 90 cents and from one hog, 96 cents. Even if all the crops that are raised on the farm are fed to animals and their manure returned to the soil, the fertility can not be maintained at its maximum. Animals will excrete from 96 to 98 per cent of their food in the form of manure, and when this is applied to the soil there will be a loss from washing and other causes in addition to the four per cent which has been retained in the animal body, so that the process of deterioration in the fertility of the land must continue unless more manure is applied to the land than is produced on it. Every crop of alfalfa or other legume weakens the soil in phosphorous every day, and this is where Kansas soils are weakest. The only salvation for the Kansas farmer who would preserve the fertility of his land is to feed his crops on his own farm. With every load of hay sold, so much of the farm is disposed of. With every animal fed so much of the farm is preserved.



Father Politics' Busy Season



# Can Fish Farming be Made Profitable?

Some years ago there was a great deal of attention directed to the German carp and the great possibilities for money making to be found in growing this fish in stock ponds, water tanks, bayous or even in common puddles. He was described as the "poor man's fish" and the farmer's fish, and was said to be able to live on food and in weather conditions which would not support any other member of the finny tribe, and yet to be able to furnish a wholesome and palatable table dish for the farmer and his family.

Away back in the 80's the Agricultural College established a series of ponds which were stocked with scale, mirror and leather carp. The idea here was to test the carp as a possible food producer, and at the same time to determine the relative values of the three varieties. These ponds were maintained for about three years, when the test was given up.

Growing out of the enthusiasm of those who talked much and knew little about this fish, innumerable ponds all over the state and many slow flowing streams were stocked with the German carp. Spring freshets served to break down the dams, and distribute these fish to the streams of the state where they have seemed to thrive ever since. In fact, there is one location a few miles west of Topeka, where the breaking down of a stock pond dam served to distribute the German carp into the ditch alongside the railroad track, and these fish are believed to have their home in this unique fish pond, although many years have elapsed since they first took up their abode there.

All that has been said in regard to the vitality and easy keeping qualities of the carp is true, and if one were to raise fish merely for amusement, perhaps nothing better could be selected, as it will live and thrive with less care than any other known fish in this country unless perhaps it be the gold fish, which belongs to the same family. When it comes to utilizing the German carp, however, that is another question. The writer has met people who claimed to like them as food and he has no reason to doubt their honesty though he might criticize their taste. It is known that in the old country, where the German carp has long had its home and whence it was imported to the United States, it is a common practice after catching these fish to put them in a vessel of clear water and feed them on bread and milk for several weeks before any attempt is made to use them as food. The object of this is to get rid of the very rank taste and odor with which they seem to be naturally endowed.

German carp are vegetable feeders entirely and for this reason it is only possible to catch them on a hook and line when they are suitably baited with specially prepared bait. It is said that they will eat cheese, and it may be true that they occasionally eat insects, but the ordinary feed is of vegetable origin. As a food product they are a huge joke, being rank in flavor and full of bones, though this latter feature is less noticeable in the larger sizes.

Fish farming in Kansas can hold out but little inducement as a money making proposition. It is possible, however, to get a great deal of satisfaction and pleasure with an occasional choice addition to the bill of fare by stocking the ponds and streams with suitable varieties of native fishes. Among these the black bass ranks as king. In order to raise him, however, the water in which he makes his home should be supplied from springs or from constantly working pumps. It should have sufficient depth in places to enable him to retire to the cool dark holes in the summer season as protection against the heat and in the winter season as a preventive against being frozen up. Ponds that are supplied with springs generally make a very good home for the black bass, though the large mouthed variety will thrive better in such waters than does the small mouth, which is by nature a stream fish.

Black bass are carnivorous and live upon other fish, crawfish, insects, and any animal matter that may come their way and be within their powers of handling. While the bass will not attack a large German carp, the young of the carp makes excellent food for him. He belongs to the same family

## Valuable for Family Supply and For Pleasure But Not for Money

as the sunfish, the croppy, the jack salmon, and the drum or silver bass. There is no fish that affords greater pleasure to the angler than the black bass unless it be the trout of the Rocky mountains. He is a fighter and never gives up until exhausted. If taken in the early spring or after frost in the fall he makes a delicious morsel for the table. During the hot months of the summer the bass is subject to disease or to parasites which affect their eating qualities though, so far as the writer knows, do not result fatally to the fish. There are a number of streams in Kansas that are the home

of the stippi cat and others, will live and thrive in almost any kind of a pond, but their flesh is not so palatable nor are they worth while when better fish can be had for the same amount of trouble. The bull head family is characterized by large head and relatively small body, with a square tail. The channel cat, on the other hand, has a small head and deeply forked tail. This fish is at home in a stream and prefers running water, although if the ponds are well supplied by springs he will live and thrive in them. Everybody is acquainted with the quality and flavor of his flesh, and he needs



Black Bass and Channel Catfish raised in an artificial pond in Western Kansas.

of the black bass and some of these have been plentifully supplied with them in years past, though a careless observance of the fish and game laws, the dynamiting of the streams, and seining or netting has served to deplete their numbers.

The natural home of the black bass in Kansas is in such streams as have rocky bottoms, clear water, more or less of water plants, and long stretches of quiet water with occasional ripples. He does not live in the sandy streams like the Kansas or the Arkansas, although he is found in plentiful numbers in some branches of both. As a pond fish he will thrive in waters that are supplied by springs or by artificial means so that the water does not become too stagnant. He will live in water that is more or less stagnant, but does not thrive.

There is no use in attempting to import fish for stocking of private waters in this state. Many attempts have been made both by the state fish commissioner and by private parties, but these have always resulted disastrously. However we are well supplied with a variety of native fishes which answer every purpose, and among these may be mentioned the channel cat, which rightfully is entitled to rank as a game fish, although his name usually places him in another catalog among those who are not familiar with his habits or the quality of his flesh. Of course the bull-head and all his family, including the black cat, the stone cat, the Missis-

sippi cat and others, will live and thrive in almost any kind of a pond, but their flesh is not so palatable nor are they worth while when better fish can be had for the same amount of trouble. The bull head family is characterized by large head and relatively small body, with a square tail. The channel cat, on the other hand, has a small head and deeply forked tail. This fish is at home in a stream and prefers running water, although if the ponds are well supplied by springs he will live and thrive in them. Everybody is acquainted with the quality and flavor of his flesh, and he needs

no recommendation. He is well calculated to take care of himself as his spines make of him a thorny morsel for the black bass or other predatory fishes. Given a supply of clean, fresh water he will take care of himself, though in the construction of new ponds it is always necessary to wait for the development of vegetable growth in the bottoms and along the margins in which insects and crawfish make their homes, or else it will be necessary to provide feed for either the bass or the channel cat until nature can adjust herself. After the pond is well established and supplied with the necessary vegetable and insect growth no farther care is necessary for the production of these game fishes.

Other fishes of use and value may be placed in the pond without interference with the bass or the channel cat, but these two are the best for all purposes of pleasure and food supply. Any one of the several varieties of sun fish will thrive in the stock pond and of course the bull head family will be right at home. It has never seemed worth while to raise inferior fish and so the writer has always excluded the German carp and the bull head family from his experiences and has stayed by the black bass and the channel cat as the two best varieties for this country. They are not subject to attacks by enemies and if the water is clean and fresh do not suffer from disease or parasites.

Considerable trouble will always be

experienced probably from depredations made by turtles and the work of musk rats and crawfish on the dams. One well known farmer in Shawnee county who has maintained five large stock ponds, all of which have been stocked with fish for years, has experienced so much trouble from wash outs and the work of muskrats and crawfish that he has lately replaced all of his earth dams with those of solid concrete and finds that, while the expense of building the concrete dam is somewhat greater than that of building an earth dam, it is cheaper in the long run as the concrete dam never has to be rebuilt or repaired.

While these ponds are a source of possible revenue to the owner who engages in fish culture it is not thought that the revenue will be great or remunerative. The ponds are a necessity in most cases, as a water supply for stock, and the presence of fish in them serves to produce natural conditions, to purify the water, and to furnish an occasional table delicacy which is highly appreciated by most people. The main value of such attempts at fish culture, however, lies in the pleasure afforded to the farmer and his family who can take an occasional vacation of a half day or even of a few hours, enjoy a picnic dinner in the shade, have a great amount of sport in fishing and return to the house reinvigorated in mind and body and with a nice catch which will provide the family breakfast with a highly appreciated variety to the bill of fare.

The building of a pond is a comparatively simple matter, as it usually consists in the damming of the draw or swale on the farm. Where the soil is a black loam and where quick results are not demanded, it might be wise to construct the dam and allow it to stand during one season, in order that the vegetable growth may get fairly started. It may be desirable to foster this by planting pond lillies and other water loving plants and no harm can result if weeds are allowed to grow in and about the pond during the first year. If the site for the pond is on sandy land, however, a different treatment will be necessary. One of the most successful attempts that the writer has ever seen to render a pond water proof which had been constructed in sandy land, was made by feeding a bunch of sheep on the pond site during the winter months. The same result could be accomplished by feeding hogs there. The accumulation of vegetable matter, together with the trampling of the animals serves to puddle the surface in such a way that it will hold water. The longer the water remains in the pond the less likely it is to leak, as the sediment deposited by the water will make it water tight. Another way of handling a pond in sandy land, is to reverse the scraper and ride around in it so as to smooth the surface of the ground while moist as one might smooth the surface of mortar with a trowel. If the bottom can be made to hold water for a time, it will gradually become impervious with the increasing height of the water level. After the pond is once constructed and vegetable growth has well started, no further attention will be demanded except that required to repair the damage done by musk rats and crawfish. With a suitably equipped pond, well stocked with a good variety of fish and made the home of a colony of ducks the pond may be made to pay for itself even though it does not bring any considerable revenue in money.

In England they do not talk about their land being "wheat sick" when it averages over 30 bushels per acre after centuries of cultivation. In Kansas large areas in the wheat belt are now devoted to other crops because the land is "wheat sick" and will not produce that cereal in paying quantities any more. Who is to blame, the land or the man?

The Kansas Agricultural College is manufacturing a large supply of hog cholera serum for the prevention of hog cholera, and trained men from the veterinary department are visiting herds throughout the state and cooperating with local veterinarians in the work of vaccinating hogs. This work will be worth millions of dollars to the state.

## Gasoline Engines on Harvesters

Have you tried the small gasoline engine on your harvesting machine? THE KANSAS FARMER wants to get at the real facts as to the value of the small gasoline engine on harvesting machinery, and invites its readers to send in their experiences together with photographs showing the methods of attaching the engines to the binders and of connecting the engines to the sickles. Some have praised this plan as an important advance step in farm mechanics while others have reported adversely. What is your opinion and experience? If a manufacturer should put out a gasoline engine adapted to this purpose, would you care to buy it? If a harvester company should offer a machine with a gasoline engine attachment would this prove an incentive to purchase? If there is any good in the proposition of attaching a gasoline engine to a harvesting machine the KANSAS FARMER would like to know it. If there is no good in it this information would be equally valuable.



# KANSAS FARMER

## EDITORIAL

### POLITICS AND THE SCHOOLS.

In the past history of Kansas there has existed times when men who were responsible for the management of the public educational institutions, both great and small, have been appointed to their respective positions, chiefly as a reward for active political service. Qualifications for the work in hand are seemingly not thought of and if a man has done some political work for the officer who holds the appointing power he is rewarded by being given a position of honor or emolument or of both. As the positions which pay attractive salaries are not numerous and as political workers are always plentiful, many of these men have to be content with places of honor only. These men are placed on the school boards and the governing boards of the state educational institutions. Sometimes they develop into good officials. Sometimes they merely draw their salaries, and sometimes they use their positions for political purposes. In most cases, however, where such appointments have been made they are content to do the routine work and draw their salaries.

A case in point is one about which much complaint is made in papers of Kansas at this time because of the gross misrepresentation which is made of this state and her resources in the text book on geography that is used in the primary grades of the public schools. On the outside of this text book is printed the words, "Kansas Edition," and this implies that some special attention has been given to Kansas in the text, yet the word Kansas appears only once inside the covers and that is on the map of the state. The description of the country lying between the Missouri river and the mountains, of which Kansas is a most important part, is given as follows:

"There is a belt of high plateau land east of the Rocky mountain foothills, stretching from Texas to North Dakota, which has very little rain, not enough to make grain growing profitable, and so it is devoted to grazing. Where the buffalo once fed in countless numbers now graze thousands of cattle. A stranger would think that treeless plains are quite unsuited for cattle, they seem so brown and bare; but the low, sun-dried grasses are wonderfully sweet and nourishing. No hay is equal to these grasses, dried where they stand, and waiting to be nibbled through the winter months.

"In many cases the herds are small and are kept in fenced fields, as in New England and the middle states; but sometimes the cattle are in immense herds, and feed upon great tracts of unfenced land, where it is necessary for men to watch and care for them. These herders are called cowboys.

"The cowboys almost live in the saddle. They wear overalls of leather and wide-brimmed hats, carry large revolvers, and use big spurs on their long boots. They endure rough fare, hard work, and all kinds of exposure to the weather. They become so hardened that they can live in a tent all winter, and think it is very comfortable. They can sleep on the ground beside a herd of tramping, bellowing, noisy cattle, or make their home for days under a tree. Cowboys receive about forty dollars a month for all this hard work."

More descriptive matter is given about the cowboy and his work, and the article winds up with the information that: "You owe the roast beef you have for dinner to the grass that grows on the far off ranches and the labor of the hard worked cowboys."

Not one word is said about the real facts as they exist in Kansas, Nebraska and Oklahoma. No information is given about the enormous crops of farm, garden and orchard products and of live stock that together form the largest element in the food supply of the nation. This book is edited by Chas. F. King of Boston, published by Chas. Scribner's Sons, and adopted by somebody for use in Kansas schools.

The harm done to Kansas in the publication of such matter in a text book is a real one though this might be survived if it were not for the fact that it is used for our children at a time when they are forming their first impressions of men and things.

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What idea of the value of geography can be gained by a Kansas boy or girl, who is surrounded with every comfort that can be purchased by the bountiful crops of his father's farm when he reads such stuff as this and is given to understand that it applies to the country where he lives. The article is not illustrated with anything that pertains to Kansas but shows four pictures of cowboys and one of an Indian, neither of whom was ever seen by the average Kansas boy. If his text book teaches him such rot as this about the country where he lives what idea can he gain about the rest of the world of which he reads in the same geography?

Serious blame can be attached to the author of this text book for his lack of knowledge of this country when it is so easily obtained. The publishing house may be criticised for issuing such a book, but the most serious criticism attaches to the authorities who adopted such a book for use in Kansas schools. Who is to blame?

Estimating potassium at 6½ cents per pound and phosphorous at 10 cents per pound, the Illinois Experiment Station has just completed an eight-year experiment in the use of commercial fertilizers in which 300 pounds of potassium and 200 pounds of phosphorous were used on each acre. The results show that the increase in crops paid a small profit on the investment in potassium and a large profit on the investment in phosphorous. The same experiment included the use of commercial nitrogen and this resulted in a loss. As stated elsewhere in this issue by Doctor Willard, nitrogen is best supplied to the soil through the growing of some leguminous crop like alfalfa, cow-peas or clover.

The Crop Reporting Board of the Bureau of Statistics of the United States Department of Agriculture places the condition of winter wheat on June 1 at 80 per cent, as compared with 82.1 on May 1, and 81.9 per cent for the ten-year average. Kansas is credited with 13.9 per cent of the total acreage of winter wheat in the United States, and her ten-year average is given as 78 per cent. The present reports show that the condition of Kansas winter wheat has improved by two points since May 1 of this year, and now stands at 67 per cent for June 1, as compared with 72 per cent on the same date one year ago. Kansas stands first in winter wheat in the United States. Her position with regard to the oats crop is No. 13, but the condition of the oats crop is 84 per cent as compared with the ten-year average of 77 per cent. The acreage of oats in Kansas is 120 per cent as compared with that of 1909. Kansas has 102 per cent more barley than last year, and its condition is given as 90 per cent as compared with a ten-year average of 78 per cent.

### K. S. A. C. CATALOGUE.

The catalogue of the Kansas Agricultural College for 1910 is a bulky volume of some 300 pages, each one of which will prove of interest to Kansas people of all classes, but especially to Kansas farmers. This catalogue marks the completion of the 47th year of successful work. It also contains the announcements for the 48th year and these will be found to be of special importance because of the vital changes which have been made in the courses of study.

As before mentioned in these columns, it was possible, under the old arrangement of studies, for a student to spend a year and a half in this college without receiving anything of agriculture, domestic science or the mechanic arts and, if necessity compelled it, he would leave without having had a particle of instruction in those branches of learning for which this institution stands. Now, the courses of study are so arranged that every student gets some benefit from the distinctive features of the college no matter how short his stay may be and he begins to get them from the day of his matriculation.

The style of the catalogue has changed and a new dignity has been given it which is in some measure commensurate with the importance of the institution it represents.

Why not maintain a little experimental plot of your own? It is not always the part of good judgment to plant a whole field in some highly recommended variety about which you know nothing, except through the statement of others. With a small plot in some handy corner of the farm it is possible to test out new varieties or those which are different from those in common use, and determine whether they are adapted to your methods and conditions. No extra labor need be involved, as the plot can be maintained in one corner of the corn field or of the wheat field. The only disadvantage which might come from this would be a possible crossing of varieties. But even though it should cost a little extra labor, it might easily be worth while.

Since the price of meat has advanced to such a degree that a steak now "tastes of the silver," there have been many suggestions made by many men as to the best remedy. Among them is one made by an officer of the government, and it seems to be made in all seriousness, to stock the bayous and lagoons of the Gulf states with African hippopotami. These animals are said to furnish a delicious meat and to be well adapted to the conditions to be found in the South. Wonder how about killing on shares, so that each family would take home a quarter? This might not be the solution of the price question, but it sounds better than horse and mule meat, anyway.

### KANSAS CROP CONDITIONS.

Because of the varying reports from different sections of the state, Secretary Coburn asked his correspondents to revise their April estimates of crop conditions in Kansas. He has just issued a report showing the present condition of wheat, corn and oats. In this it is shown that much of the wheat that was thought to be lifeless in April has stood out and will produce creditable yields. The county of Barton is cited as an example both of having the largest acreage in wheat and the largest abandoned area. The April statement showed 27 per cent of wheat land abandoned while the June 29th statement showed only 17 per cent abandoned. On the other hand, Dickinson county reported 75 per cent of its wheat as being worthless in April and 93 per cent in June. In spite of the shifting of conditions in different parts of the state the total area that will be harvested will be about 4,500,000 acres. As compared with 100 for perfect the condition of this wheat is about 76. The northwestern portion of the state suffered from a dry spell which prevented the heads from filling out properly while in Sumner, Cowley and some other counties, chinch bugs have done more or less damage. The largest percentage of losses to winter wheat was in the eastern half of the state although a few of the prominent wheat belt counties have suffered.

Because of the unsatisfactory appearance of the wheat in the early part of the season Kansas will this year have the largest acreage in corn in its history. The general average condition at present is 80 per cent, as compared with 88 per cent in June, 1909, and 75 per cent in June, 1908, and it is possible that the state will show a bumper crop in this grain this year.

The area sowed to oats is also unusually large because of the unsatisfactory condition of the wheat in the early part of the season. Information now in hand shows a net gain of 64 per cent, while the condition of the crop is reported at 86.6 per cent. The acreage promises to be the largest since 1903 and will aggregate something over 1,600,000 acres.

Aside from ten or twelve counties in western Kansas, where the growth of grass has not been satisfactory the prospect for the hay crop is good, with an excellent growth of alfalfa reported in all sections. The second crop of alfalfa has proved to be of excellent quality and has been harvested in good shape generally.

Prof. M. A. Carleton, cerealist of the Department of Agriculture, and who, by the way, is a Kansas boy and a graduate of our Agricultural College, once said that he expected to live to see the day when the semi-arid plains of the West would become the granary of the nation. He is a young man yet, but the progress made in dry farming methods has been so rapid that he has already lived to see a large part of his dream realized. Already the corn belt has extended beyond the Western Kansas border and farms now exist where once the range steer found a bare sustenance. A recent trip to Western Kansas showed crop conditions that are superior to those of the eastern part of the state and, though this may be attributed in part to the season, the records show that crop returns are vastly more regular than was formerly deemed possible and the community prospers. A scientific study of weather and soil conditions, together with the judicious selection of species adapted to this region, have brought this about, but not alone. Credit must be given to the men and women who endured the hardships of pioneer life and compelled success where others, less courageous, have failed.

Evidently this is another season which is favorable to western Kansas. Reports generally indicate that the wheat is in a most promising condition and that the expected yield will be heavier than was anticipated. The wheat has stood out and made a good stand while the heads are large and well filled. The Kansas average may yet be maintained.



# THE FARM



## The Gasoline Engine for Farm Work.

The upkeep of the gasoline engine in relation to the amount of work performed and the varied amount of work it will do makes it by far the cheapest power possible on the farm.

In point of economy it is best to select an engine with only ample power to do the amount of work required. It is not economy to use an 8 or 10 horse power engine to do a 2 or 3 horse power work.

A 2 or 3 horse power is ample to do the average farm work. An engine of this size will supply all the water for the house, stock and to water the garden, will grind 150 bushels of corn a day, saw the wood, run cream separator, grind stone, in fact, do all the drudgery work on the farm. The expense of keeping up and operating the engine is so small in comparison to the amount of labor saved it is insignificant.

Any of the standard make engines with reasonable care will last for many years without repairs, can be started as quickly as a windmill, requires no attention while running, can be arranged to shut off automatically so one can go about other business and return to find the work done. As to fuel consumption, a 3 horse gasoline engine will work all day on 3 gallons of gasoline or at present price for 45 cents. If that seems too great and the engine is being worked steadily all day one can economize by using common kerosene or coal oil without making any change in engine and do the work for less than 25 cents. Simply put in a 3-way cock in gasoline feed pipe and one in the overflow pipe, start the engine on gasoline and soon as the engine gets warmed up switch to the coal oil and it will work just the same, but if only using the engine for an hour or so at a time it does not justify changing. With this expense for power there can be pumped 250 gallons of water every minute for 10 hours, using a centrifugal pump, on a 10 foot lift.

I have a plan now for a lighting system for the house which I expect to use. I use a great deal of water in the greenhouse and use it under heavy pressure which necessitates running the engine several hours each day. Have planned to use a 15 or 20 light dynamo belted to the engine to charge a storage battery at same time am pumping or otherwise using the engine. As for the troubles of gasoline engines remember there are only three things to happen them, soot or scale getting under the exhaust valve so cannot seat, thereby leaving the engine without compression; wash out with coal oil; feed pipes clogged so feed cannot enter cylinder; clean out pipes; or spark is not working; clean contact points; with these three things in order the engine is doing business at an expense of 7 cents per horse power per day on kerosene or 15 cents on gasoline.—Frank L. Parker, Hutchinson, Kan.

The average yield of corn on Kansas farms is representative of her farming methods. This yield is all too low. As shown by the Departments of Agriculture of both the state and the nation the average is below 30 bushels to the acre. While this in-

cludes considerable areas that are not included within the corn belt and much that has not made a profitable crop it is true that the average on the good corn land of the state is yet too low. With the present prices of land the farmer can not afford to raise corn which will average him only 30 bushels per acre. It is stated that it costs about \$12.25 an acre to produce a crop of corn and this does not include any estimate of cost for the renewal of the soil fertility which should be attended to after every crop is removed. Allowing 30 bushels as the average yield and 45 cents as the average price for the year the farmer who produces this amount of corn on his land is only making a profit of \$1.25 per acre each year over the actual cost of producing the crop. This does not provide for any manuring of the land and does not show that he is getting rich very fast. It does show the need for better seed, better methods of cultivation, and a rotation with alfalfa or cow-peas.

Up near Horton, in Jackson county, is a farm on which there is a considerable area of bottom land, subject to occasional overflow. A portion of this bottom land has been tile drained and is now in perfect condition for any crop. Another portion of about forty acres is not tiled drained and was sown to Alsike clover and timothy. While it is believed that red top would do better on such land than timothy, it is necessary to sow some grass with the Alsike in order to make it stand up. A combination of Alsike and timothy produces a tremendously heavy yield of hay though if the land should be used for pasture the timothy will not stand the tramping of the animals so well as red top. Alsike is a crop that is comparatively little known in Kansas farm practice and yet it is really worth while because of its power to grow enormous crops on wet land. It will bear investigating by those who have such wet spots on their farms.

The highway engineer of the Agricultural College has been forced into the building of a concrete bridge by day labor for the commissioners of Ottawa county by the high bids submitted by the bridge companies for a bridge on which the engineer, Mr. Gearhart, had made an estimate. The estimates made on four bridges by the companies was about \$3,000 higher than the estimate made by Mr. Gearhart. It was, therefore, "up to" the engineer and he preferred to stand by the commissioners.

Agricultural trains have been one of the means the Kansas Agricultural College has taken for the promotion of various lines of agricultural work. Such trains have been conducted over the Rock Island, Santa Fe and Union Pacific lines. For next year arrangements have already been made with the Rock Island Company for a "Hog Train," a "Dairy Train," and a "Horse Train." Over the Santa Fe the college will probably conduct a "Dairy Train," a "Poultry Train," and a "Corn Train." Arrangements for agricultural trains have not as yet been made with other roads.

Manure is very perishable and loses rapidly under most conditions from the time it is made. If dropped where it is wanted, or if applied at once, the loss is the least. No farmer should be so blind as to suppose he is keeping up fertility in proportion as he feeds stock, unless he gives the manure proper care; it is getting manure on the land that counts in fertility. When manure cannot be hauled and spread as produced, it is best preserved by the deep stall system (letting it accumulate under the animal's feet with plenty of bedding for any desired time). This system seems especially adapted to winter feeding in mixed farming. Nitrogen is the principal element in manure, and the full value of manure is secured only when it is applied to land needing nitrogen.

## LESS SEED BIGGER CROPS

## PROTECT WINTER WHEAT FROM FROST

If your winter wheat is not planted properly with a good drill, thousands of seeds are sure to be killed by frost, and just that much ground stands idle because the seed did not grow. Still more ground will stand idle because seeds were planted too close together, and the plants will starve because they cannot all get enough nourishment.

Are you not losing money when you waste seed this way, and lose the use of your ground—to say nothing about the waste of seed?

It is a sure fact that you are losing more money every season than it would cost you to make your winter wheat and spring oats safe from frost—safe from sun, birds and heavy rains—to get the use of all your ground

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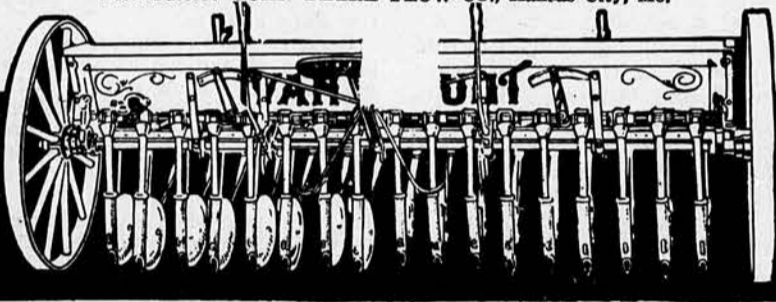
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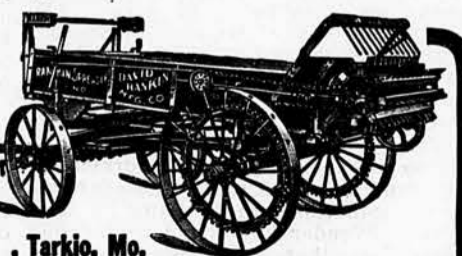
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# Watch Your Wheat

## While it is ripening and at harvest

- |                                   |                               |
|-----------------------------------|-------------------------------|
| Is the yield what it ought to be? | Is the grain plump and heavy? |
| Does it run to straw?             | Does it lodge?                |
|                                   | Is there rust or smut in it?  |

Wheat and the ground it grows on are now worth so much that better yields are imperative. How can they be had? By giving the plants the right kinds and amounts of food. Are the right amounts contained in 1-7-1, the 2-8-2 or the 0-10-2 mixtures? Far from it.

These goods may give the best profit to the manufacturer, but how about the farmer? Can he not get more plant food in better proportions and FREE FROM FILLER by paying attention to the subject now, so that there will be plenty of time to buy his plant food direct or through the local dealer, especially his

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distributing points in the wheat belt to save you freight on small lots. Ask your local dealer to arrange to buy a car. If that is not possible, write for prices on what amount you want. You will not have to write nine letters before you get potash prices from us. It will pay you to get them, for

## Potash Pays

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**HOME CIRCLE**



**Bleached Flour Investigations at the University of Kansas.**

The "Bleached Flour" which is now in the United States Court before Judge McPherson, is exciting considerable interest. The question to be decided is whether or not the process of bleaching flour renders the product impure as a food or whether the bleaching adds to the flour an adulterant.

In the Food and Drug law there is a provision that if any substance has been added to an article whereby inferiority has been introduced, or if any valuable constituents have been wholly or in part abstracted, or if it contains any added poisons or deleterious ingredients, which may render such articles injurious to health, such articles must be considered adulterated.

Some months ago one of the prominent millers of the state of Kansas sent to the University laboratory of which Professor L. E. Sayre is director, asking him to ascertain whether there was added to the bleached flour, or produced in it by the bleaching process, any deleterious or poisonous ingredients. Two samples of flour of the same grist, one bleached and the other unbleached, were sent. The

millers stated that if the process of bleaching added to the flour any deleterious ingredients, he did not care to continue it; that it was a small matter to him whether he made bleached flour or not, but his customers were demanding it.

Professor Sayre immediately started upon a series of experiments in order to determine the points in question. In the first place he performed a series of tests to ascertain the digestibility of the bleached and of the unbleached flour.

The second series of tests pertained to the question of the baking properties of the two flours. Bread was baked from each of the samples and distributed among consumers whose opinions as to the value of the two kinds of bread were requested.

The third series related to the question of the amount of nitrites which might probably be absorbed and retained by the bread.

The fourth series pertained to the question of the nitrites themselves, which were claimed to be retained by the bread.

The results of these and other experiments were convincing; namely, that no deleterious quality was added to flour when it was properly bleached, and that nitrites when taken by the system would have to be far in excess of the quantities present in bleached flour in order to affect the blood so as to injure it as an oxygen-carrying element.

To test the effects of considerable quantities of nitrites on the blood Professor Sayre and two of his associates took several doses of sodium nitrite, three grains each, one hour apart, and tested the blood after stated periods during the day by means of the spectroscope. No change in the oxygen carrying power of the blood was shown, which means, according to the investigators, that the system has the power of appropriating or breaking down nitrites, which are common constituents of the air and many of the materials liable to be injected by the human being.

The investigations of Professor Sayre and his associates agree with those of other professors.

Professor Sayre is of the opinion that should nitrate be present in the bread, the strong probability is that the nitrites would be converted into harmless compounds which correspond to compounds in natural digestion.

**Clean Soap.**

Many ladies object to making soap often, claiming it is a messy, troublesome job, so they store their soap grease until spring and fall, and then have one grand, big undertaking that supplies them with soap for six months at least. This might be an ideal plan if the grease kept pure and sweet, but it doesn't always do that, and to see the grease used on some farms for soap making would be to lose one's appetite for the rest of the day at least, if one stops to think that the dishes are washed with this article. The lean meat, especially, in the grease, and some lean will occasionally cling to the fat, decays and often innumerable maggots can be found wriggling about in the grease. All this might be obviated if only the scraps of fat were tried out in a cleanly manner and soap made as often as necessary.

It isn't such a messy job, after all, nor is it a great deal of trouble. A lard pail kept in a cool place can receive all the waste fat, and when it is full, usually in a short time where there is a large family, a few cakes of hard soap or a few gallons of soft can be manufactured in an hour, and it is as clean as heart can desire. A good prepared lye must be used unless one has the home made article, and the directions followed implicitly to insure success. However some housewives have improved upon the printed recipes by adding a little borax or some other preparation, and experience will enable even

the young housekeeper to evolve her own recipe in a great measure.

Then the soap is poured into shallow pans, some ladies use shoe boxes which may be thrown away afterwards to save washing, and when the soap is nearly cold, or while a sharp knife will go through it and the mark not close up, it is cut into convenient cakes. In less than one hour enough soap to last six to eight weeks can be made, and there will be no suspicion of uncleanness about it.

The finished product should be stored in a clean, dry place to dry out a little, or it may be used immediately. For washing clothes and for dishes it has no equal, though for hands or toilet it is too strong. After butchering while the fat is clean and sweet, and whenever there is a small quantity of refuse grease on hand, it is well to manufacture soap for the household, for then it is clean, sweet and pure.—Hilda Richmond.

**Delicious Mixed Preserves.**

**Red Raspberry and Currant**—Take two parts of raspberry to one of currant and cook in separate granite pans, as the currants need longer stewing. Add pound for pound of sugar to the currants but none to the berries. When the currants have gently cooked one hour, or until the juice looks thick, add the berries which should be boiling hot, and cook for about twenty minutes, or until thick and good. Never add water to either fruit, as the raspberry juice will make enough liquid.

**Red Raspberry and Cherry**—Take equal parts of red raspberries and cherries and gently cook in a granite pan on the back part of the stove one hour. Add two-thirds as much sugar as fruit and slowly cook until thick.

**Gooseberry and Mulberry**—Take equal parts of ripe gooseberries and mulberries and cook together until soft. Then add three-fourths as much sugar as pulp and cook slowly until thick.

**Cherry and Mulberry**—Take equal parts of cherries and mulberries and cook without adding water until soft. Then add three-fourths as much sugar and cook slowly until thick.

**Pear and Lemon**—Allow one lemon to each three large pears. Peel and quarter the pears, though if very large cut in eighths. Cook carefully in a syrup made of half the weight of the pears in sugar and enough water to moisten. When the pears are golden in color and transparent add the lemon cut in thin slices, rejecting the ends and seeds. Cook twenty more minutes and can.

**Grape and Elderberry**—Cook both berries separately, and put through a colander to get rid of seeds. The grapes should not be over ripe. Mix the pulp and add two-thirds as much sugar. Cook until thick and fine without scorching, stirring often.

**Quince and Sweet Apple**—Cut quinces and tough sweet apples into rather small pieces after peeling and coring, and slowly simmer on the back of the stove until tender. Then bring forward and boil rapidly with a little more than half the bulk in sugar. They should be a beautiful red in color and almost transparent. A few slices of lemon may be added if liked.

A doctor said: "Every day of my 25 years' practice I have gone into homes where knowledge of sanitation, food and the care of children was greatly needed, but I have yet to find a home where Latin and higher mathematics are needed to bring better health and happiness." You know much better how to feed plants and animals than you know how to feed boys and girls. Which is of the more vital importance, boy and girl or horse and pig?

**Cherry Dumplings.**

Make a good pie crust dough. Roll out and cut in squares, place a big spoonful of pitted cherries on each square, add a little flour to each, wet the edges and fold together. Drop into a kettle of boiling water. When about done, take enough sugar to sweeten the dumplings, dissolve in cherry juice; add to this one tablespoon flour rubbed smooth in water. Add this mixture to the kettle of dumplings, let boil fifteen or more minutes and serve hot or cold.

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5 pound package Extra Fancy Japan Rice.....	.40	.30	3 Tall Cans Fancy Red Salmon.....	.50
10 pound package Strictly Fresh Rolled Oats....	.50	.40	3 Regular 20c cans Sardines in Olive Oil....	.60
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10 Bars Extra Large Size Laundry Soap.....	.50	.40	3 pound packages seeded raisins.....	.35
1.4 pound package Washing Powder.....	.20	.15	2 pound packages Cleaned Currants.....	.24
3 large size cans Lye.....	.25	.20	1 gallon can Fancy Table Syrup.....	.75
1, 8 oz. Can Fresh Ground Black Pepper.....	.25	.20	1 gallon can High Grade Cooking Molasses....	.75
1, 8 oz. Can Fresh Ground Dry Mustard.....	.25	.20	10 pound box Fancy Soda Crackers.....	1.00
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# LIVE STOCK



## Farm Beef Production.

I will give my own ideas as to the best interests of western farmers in general who are engaged in beef production. I am in no way prejudiced in favor of any breed of cattle. Every breed has some special merit over any other breed in some respect. The Galloway has a grand coat of hair and specially adapted to a cold northern climate. They are an excellent beef breed, very hardy, good feeders but not so well adapted to this climate as the Shorthorn and Hereford. The Polled Angus is also an excellent breed. They get their share of the prizes in the show ring which is the final test. They are not so smooth as the Shorthorn or Hereford but they are hardy and good feeders. The Hereford is a magnificent beef breed, great rustlers, easy feeders, and very strong and hardy, and very popular with a majority of feeders. The Shorthorn lays over them all in size, and this point must be considered, but in hardiness is scarcely equal to the other breeds, but has no superior in the feed lot. The Shorthorn and Hereford, when dehorned, are more quiet and peaceful in the feed lot than the polled breeds, a point greatly in their favor.

The time is soon coming when greater attention will be paid to the milking qualities of the farmer's cow.

The Shorthorn is the ideal cow for the small farmer who wants milk and a cow that will fatten easily when put in the feed lot. The breed has no competitor in this line, and not likely to have in the next five hundred years. The time is not far off when the Shorthorn will be the standard cow for the small farmers and they are destined to be mostly small farmers soon. The Shorthorn cow has a great future. In grading up a herd of common cows, a Shorthorn bull should be selected from a herd whose owner makes a specialty of the milking qualities in his herd as well as the beef qualities. These qualities can be kept together if he so chooses. Such breeders can be found. I once owned a very fine Shorthorn cow, pure bred, whose calf could not take all her milk for several weeks after calving. I sent a sample of her milk to a creamery for test and the report was 5 per cent butter fat. I do not know it was correct, but there was no motive for misstatement. This cow was fit to be shown in any company. A well known Kansas breeder told me a few days ago he thought he had never seen a finer beef bull than her sire, and he has seen Master of the Grove, and has some of his produce in his herd.

I give this to show it is not necessary for the breeder to allow the milking qualities in his herd to deteriorate to get the best of beef qualities. That noble cow was of mixed breeding, strong in both Booth and Bates blood, with a sprinkling of Scotch.

If the owner of a high grade herd of Shorthorn cows wishes to get the finest beef calves possible, let him use a good Hereford bull. The calves will be the best beef cattle on earth, from the first crop, but go no further. Spay the heifers and put them in feed lot.—D. P. Norton, Morris Co., Kan.

## K. S. A. C. College Feeds Cavalry Horses Experimentally.

Commencing October 1st, the Kansas State Agricultural College, with the cooperation of the U. S. War Department, will start a nutrition experiment on the 884 cavalry horses stationed at Fort Riley, Kansas, which will no doubt be the largest and most complete experiment of its kind ever conducted in America. "The beef steer and his sister" have long been the subject of fattening experiments but little attention has been paid to the proper rations of the horse. Professor Kinzer, head of the animal husbandry of K. S. A. C., has for some time had this experiment planned, but was unable to put it to a test owing to the fact that he could not find a large enough bunch of horses. The horse is of such temperament that no two have dispositions exactly alike and so to get satisfactory re-

sults it is necessary to experiment on a large number of animals.

Professor Kinzer has undertaken this experiment to find what is the best and most economical ration for the maintenance of the horse. For years the army horse has been fed the same rations, consisting of 12 pounds of oats and 14 pounds of wild hay, and many of the artillery officials contend that it is impossible to improve upon it. Whether or not this is the case may be proved by the experiment, for the test will be made upon a bunch of horses having the same work, same exercise, same time of feeding, in fact all of them will be treated as nearly alike as animals can be treated by different individuals, leaving no chance for variation in results.

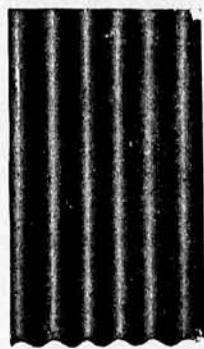
On October 1st the 884 cavalry horses will be divided into groups, one of which will be used as a check bunch to which will be fed the regular army ration of 12 pounds of oats and 14 pounds of wild hay. The other bunches will be placed upon the following 18 rations for five months:

1. 12 lbs. oats, 14 lbs. prairie hay.
2. 12 lbs. corn, 14 lbs. prairie hay.
3. 8 lbs. oats, 4 lbs. corn, 14 lbs. prairie hay.
4. 8 lbs. oats, 4 lbs. corn, 14 lbs. timothy hay.
5. 4 lbs. oats, 8 lbs. corn, 14 lbs. prairie hay.
6. 4 lbs. oats, 6 lbs. corn, 14 lbs. prairie hay.
7. 4 lbs. oats, 6 lbs. corn, 12 lbs. timothy hay, 4 lbs. alfalfa meal.
8. 4 lbs. oats, 6 lbs. corn, 12 lbs. prairie hay, 4 lbs. bran.
9. 4 lbs. oats, 6 lbs. corn, 12 lbs. timothy hay, 4 lbs. bran.
10. 4 lbs. oats, 6 lbs. corn, 12 lbs. prairie hay, 1 lb. linseed oil.
11. 12 lbs. barley, 14 lbs. prairie hay.
12. 8 lbs. corn, 2 lbs. oats, 10 lbs. alfalfa.
13. 1 lbs. corn, 2 lbs. oats, 7 lbs. wild oats hay.
14. 4 lbs. corn, 2 lbs. oats, 7 lbs. barley.
15. 10 lbs. clipped oats, 17 lbs. prairie hay.
16. 6 lbs. corn, 12 lbs. prairie hay, 6 lbs. barley hay.
17. 6 lbs. corn, 10 lbs. prairie hay, 4 lbs. barley hay.
18. 10 lbs. oats, 10 lbs. prairie hay, 7 lbs. sugar.

Doctor Wilber McCampbell, a graduate of the school of Veterinary Medicine at K. S. A. C., will represent the college at the Fort and will have supervision over the rations and the taking of data. The results obtained from this experiment will be of immeasurable value to all the owners of work horses in the state. When the experiment was proposed, Colonel Hoyle, commandant of the Artillery Post at Fort Riley, who is an enthusiastic horseman, expressed himself as highly in favor of attempting it. The plan, recommended by Colonel Hoyle, President Waters, Dean Webster and Professor Kinzer, was submitted to the War Department, where it withstood the scrutiny of the various officials and after being referred to the Department of Agriculture, was finally returned with the official approval.

While this experiment is of mammoth proportions yet it will cost the state but very little as the War Department will furnish all the different rations that are to be tried; a saving to the state well worthy of mention.

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is the only windmill made that is so insured, because the Goodhue is a windmill that is built right. A postal card will bring you the proof and a free book in which you will find more practical information about windmills than can be obtained from any other source. **WRITE TODAY.**

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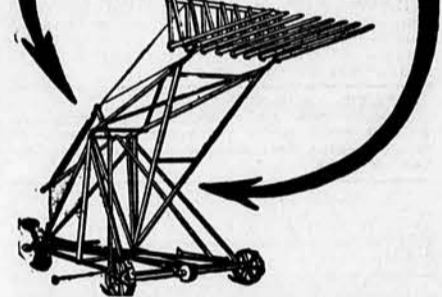
## Save Your Hay

No help—shortage if you have a "Jayhawk." One boy to rake, one man on the stacker, one man on the stack. The "Jayhawk" dumps where you want it, as you want it, when you want it. If you are short of sweeps you can use the "Jayhawk" as one. "It Goes to the Hay."



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**\$10.00 Sweep Feed Grinder.** **\$14.00 Galvanized Steel Wind Mill.**  
We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.  
**GURRIE WIND MILL CO.,**  
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## PERCHERONS REGISTERED.

A choice lot of two-year-old fillies in matched teams; will breed them to any of my herd stallions; will sell 10 or 15-year-olds all registered and of the best blood lines. Every animal sold sound.

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**PERCHERON HORSES, HOLSTEIN-FRIESIAN CATTLE.**  
Up-to-date Poland China hogs. Write your wants.  
**H. N. HOLDEMAN**, Meade, Kansas.

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"Do something for your hogs and you will be doing something for yourself."  
**Wasson's Patent Rubbing Post For Hogs**  
Will rid Hogs of Lice, Scratches and Mange, spreads the dip as the hog rubs affected parts. For description and price write

**G. J. PAGE**  
GENERAL AGENT,  
COLONY, KANSAS



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## HELP WANTED.

WANTED—YOUNG MAN TO LEARN blacksmith and wagon repairing. R. F. Allgeier, Home, Kansas.

WANTED—ECONOMICAL AND PARTICULAR people to take advantage of our prices and services. Western Printing Co., Ptg. Dept. of Kansas Farmer, Topeka, Kan.

WANTED—AGENTS TO SELL OUR Western Grown Fruit Trees on commission. Send for terms. Slate Creek Home Nursery, Conway Springs, Kansas.

WANTED—LOCAL MEN TO TAKE ORDERS for high grade western grown nursery stock. Experience unnecessary. Outfit free. Cash weekly. National Nurseries, Lawrence, Kansas.

WANTED—GOOD RELIABLE MEN TO sell nursery stock. We have a splendid proposition to offer. Write today. James Pruitt & Sons, Nurserymen, Chanute, Kan.

WANTED—LADY OR GENTLEMAN AS local representative in every Kansas county. Splendid chance to make good wages without great effort and no expense. Write for particulars. Address Circulation Department, Kansas Farmer, Topeka, Kansas.

## REAL ESTATE.

BUY OR TRADE WITH US. SEND FOR list. Bersie-Merceddes, Eldorado, Kansas.

WE CAN TRADE YOUR PROPERTY—Book of 500 exchanges free. Graham Brothers, Eldorado, Kansas.

BUY THIS 80—60 ACRES CORN; 5 fruits; 3 vegetables; crops go. Leonard Hammond, Minneapolis, Kansas.

FOR SALE—JEWELL AND MITCHELL county farms. Address J. H. King, Cawker City, Kansas.

FARM LOANS MADE IN ANY AMOUNT from \$500 up at lowest rates and on most favorable terms. Betsler Realty & Loan Co., Columbian Bldg., Topeka, Kansas.

IF LAND HUNGRY SEND FOR LIST: an improved, fertile, free fuel farm \$22,500. George Hill, Independence, Montgomery County, Kansas.

HAVE YOU A FARM OR OTHER property you want to sell or exchange? Write me, I will handle it to your satisfaction. M. Knappenberger, Keith & Perry Bldg., Kansas City, Mo.

STATE AGRICULTURAL COLLEGE—Adjacent city and suburban property for sale or rent. Write me what you want. F. G. Kimball, Real Estate Broker, Manhattan, Kansas.

200 ACRE FARM (IMPROVED) FIVE miles from a Greenwood county town, 50 acres in cultivation, balance pasture. Price \$30 per acre, mortgage \$2,000. Bersie, Eldorado, Kan.

FARMS WANTED—WE CAN TURN A quick sale for you, as we are in close touch with buyers everywhere. Let us show you how to save agents' commissions. Or if you want to buy property of any kind, anywhere, write us. American Investment Association, Minneapolis, Minn.

DON'T RENT. HOME OF YOUR OWN—160 acres, five and one-half miles Tribune, county seat of Greeley county, Kan.; smooth, unimproved, best soil, neighbors close, \$1,400, of which \$600 must be paid in cash, balance \$100 each year for 8 years, interest 6 per cent. No trades; new railroad north and south through Kansas will pass near this land. Clement L. Wilson, Box 148, Tribune, Kansas.

OREGON THE STATE WITH THE greatest opportunities. We have for sale fruit ranches, stock ranches, timber lands, and mineral lands. Let us know your wants. Splendid homes near good towns. Let us answer your questions about climate, prices of land, rainfall in this beautiful valley 42 inches per annum. "There are tides in a man's life taken as the flood leads on to fortune." Write us now. Tebault Real Estate Co., Albany, Oregon.

## PURE BRED POULTRY

**BUFF ORPINGTONS.**  
Breeding pens at half price in June. Small deposit right now secures your choice. Book tells all about them—sent for 10c.  
W. H. MAXWELL, R. 5, Topeka, Kansas

**REDUCED PRICES ON DUCKS.**  
Indian Runner Duck Eggs. Reduced price. Positively best time of the year to hatch and raise them. Get your prices and valuable book, "Indian Runner Duck Culture." Best book published.  
BERRY'S FARM, Clarinda, Iowa.

## WHITE PLYMOUTH ROCKS

(EXCLUSIVELY.)

For 18 years I have bred White Rocks, the best of all purpose fowls, and have some fine specimens of the breed. I sell eggs at a reasonable price, \$2 per 15, or \$5 per 45, and I prepay expressage to any point in the United States.

THOMAS OWEN,

Station B, Topka,

Kansas.

# POULTRY



## Poultry at the Big Fairs.

When the time of year at which most state and county fairs are held is not the best for the exhibition of poultry. Kansas is such a great poultry state that those fairs which have offered premiums on poultry have generally been successful in securing a very satisfactory exhibit.

As mentioned elsewhere, the fair, either county or state, is a matter of personal, patriotic interest to every citizen, and while it is true that a well conducted fair returns value received for the cost of the tickets, it is also true that the citizen who becomes an exhibitor has the added advantage of receiving all of the instructions which can be given at a big fair as well as the satisfaction of helping toward its success by his exhibits, and of the possible compensation of prizes won. Most people are in a position to show something. The premium list of the big fair is a comprehensive thing and covers a big field. Those who wish can enter from one to an unlimited number of articles or animals, and become competitors for premiums in one or many classes.

Perhaps there is no one thing on the farm or that is in possession of the average home owner, that is so easily exhibited as poultry. If the birds are kept as they should be they will be in condition to compete with others which may be shown, and while the season of the year is somewhat against them on account of their plumage, the judges recognize this fact and do their work accordingly. It is frequently true that an individual is possessed of a few choice birds which he has secured with the intention of building up his flock, and from among these he can easily select an individual or pen, with which he can compete for the premiums offered.

The poultry exhibit is of special interest to the women and children of the farm. When one realizes that even a moderate increase in quality of birds, due to an infusion of good blood, will at once create a demand for these birds and their eggs, it is a natural incentive to breed better and higher quality.

The winning of the prize, however, is not the most valuable thing about the showing of poultry. The exhibitor has a greater interest in the poultry show as a whole when he is represented in it by his own birds, and if he fails to win a prize a study of the birds to which the ribbons have been awarded will show him as in no other way wherein he has failed and teach him a lesson of great value and interest which may make him a winner at the next show. Winners at the state fair have a large prestige in the sale of both their birds and eggs, and if they can go into the state poultry show in the winter with birds which have won premiums at the state fairs, their chances and prestige are greatly increased. If you have nothing else on the farm that will do to show in the state and county fairs, pick out a few of your best birds and see that they are entered on time.

## Poultry Notes.

Dry, sifted coal ashes on the floors of the coops and frequent cleaning will help to keep the young birds in a healthy state. Dry earth is equally good.

If you will keep the poultry house clean, and provide a proper dust bath, the hens will enjoy making their toilet and keep their bodies clean and free from vermin.

Don't let lack of room prevent you from keeping at least a dozen hens. Fresh eggs are a luxury that every one may have and almost every family has enough waste from the table to feed a dozen fowls.

If the poultry is inclosed be sure they have some green stuff fresh every day. The garden refuse and lawn clippings will serve a good

purpose here. If these do not furnish enough cut some grass for them.

In nine cases out of ten a stunted fowl with lack of appetite and droopy appearance is feeding fine crops of lice under his wings and legs, and possibly on the top of his head.

Push the pullets every day from now on to fall. Don't let them get hungry a single time, as the more rapidly they are forced to maturity the sooner they will begin to lay.

What passes for cholera is often the result of exposure, without shade, to the intense heat. Brahmas and Cochins and all heavily feathered fowls are liable to heat prostrations.

Lice and overfeeding are the main troubles with fowls in summer. Hens, when they cease laying fatten very easily, and a fat hen is a thrifty candidate for all kinds of poultry disease.

Never allow a sick fowl to drink from the same vessel as the others. The drinking water is a great source of contagion, and care should be exercised that it is in no way contaminated.

Trouble lurks in the watering vessels in summer unless strict cleanliness is observed and the water is frequently thrown out and replaced with fresh. Wash the vessels out once a day, empty the water at night, and it is then a good time to do the cleansing. Scald out thoroughly once a week. Attention to such details will often save much disease among the chickens.

It is the flock that receives careful care in the summer that does well in fall and winter, when eggs command extra good prices. If there is any season when neglects are costly, it is in hot weather. It is at this season of the year when the little things timely observed and promptly looked after forge the chain of success in poultry keeping.

The vitality of fowls will run down just as it will in a person when extreme heat comes and it will pay to prepare for such conditions. Where there is an abundance of shade no more preparation will be necessary than to furnish a good dust bath somewhere in the shade where the hens will loiter in the heat of the day.

Scientists say a hen fed on wheat alone gets in a day one and one-half times as much carbonaceous food matter as she needs for an egg, but only one-sixth as much protein as needed. This is a hard and embarrassing mathematical problem for a creature of no more sense than a hen. Help balance her ration with alfalfa, clover, bone, etc.

The Kansas State Fair at Topeka, Sept. 10 to 17, is going to be a great affair and the poultry department will keep up with the balance of the exhibits. Extra good premiums are offered on poultry. First premium on pen is \$3.00; second, \$2.00; third, \$1.00. On single varieties, first premium \$1.00; second, 50 cents; third, 25 cents. There will be entry fees, everything being free. The birds will be fed and watered and cared for during the fair free of charge. At no other fair in the West is this the case. Poultrymen ought to take a great interest in this display and resolve to exhibit their birds. It is the best place to exhibit one's stock that can be found as thousands of visitors will be interested in the birds. It is none too early to be getting your birds in trim for the fair. The molt of the old birds should be hastened so that they may be in full feather by fair time and the young birds should be pushed for all that is out. A premium list will be sent on request by the secretary, H. L. Cook, Topeka, or the Supt. of Poultry, Thos. Owen, Sta. B, Topeka.



# DAIRY



## Ensilage and Silos.

BY PROF. G. L. MCKAY.

The rapid increase in price of land has brought about a condition where the farmer of today has to study economic problems in connection with his insurance the same as the manufacturer of any line of goods. Take the large manufacturer of the country, and the first consideration is the economy of production. Leakages or waste must be guarded all along the line if the business is to be a success. Success and failure are so closely allied that a slight change or neglect may cause a failure in what would otherwise be a successful business enterprise.

The dairy cow is the most economical producer of human food that we have, if fed and cared for in an intelligent manner. The milk of a cow that produces 10,000 pounds yearly, and this is possible, contains 8,710 pounds of water, 390 pounds of fat, 485 pounds of sugar, 340 pounds of protein or caseous matter and 75 pounds of ash. Therefore, it is evident that the cow must consume enormous quantities of succulent food to produce economically. The modern silo furnishes the succulent food, or brings about summer conditions in winter.

No man who expects to keep from six cows up for a profit can afford to dairy without the use of the silo, no matter what the first cost may be. The silo is not a new invention, it has been in use a great many years, but like many other things especially in this country, farmers were slow to appreciate its value. It is the same principle as that of the housewife canning fruits for the winter months. Back in 1786, Symonds wrote of Italians preserving fresh leaves for cattle in casks and pits in the ground. In 1843 Johnston, an Englishman, published an article on preserving green clover, grass, or vetches in pits, basing his statements on observations made in Germany. In England, between 1860 and 1870 Samuel Jones stored tares, cut green and chopped, and fed the fermented material on an extensive scale.

Adolph Reihlen, a sugar manufacturer of Stuttgart, Germany, probably stored the first green maize in pits. He also preserved beet leaves and beets in silos, with much success. He had lived a number of years in the United States, and on his return to Germany experimented with large dent corn, the seed of which he carried with him from this country. As the crop did not always mature in that climate, the green crop was pitted after the manner of the beet refuse. This work was conducted between 1860 and 1870, and the results were published in the German and French papers of the time. The use of the silo was strongly urged upon the people of France and considerable attention was given to the subject. Many farmers built silos on the basis of Reihlen's experience.

Today the silo is not an experiment. Practically all of the leading dairymen of the country are using silos. The reason they are using them is because the silos are based on economic principles.

We are not suffering today in the rural districts for the want of finding new things as much as we are for the simple application on the farm of the things that we already know. If the silo is a good thing, and practically everyone who has given it an intelligent trial admits that it is, then the question may be asked why we do not have more silos. This is a difficult question to answer. It is the old question of putting off things until tomorrow that we should do today. The farmer will frequently say to himself, "I know that the silo is a good thing and will get one, but I have to wait a little while." Hence the waste of crop continues from year to year.

In the corn belt of the country, where corn stalks are permitted to

stand, 40 per cent of the crop is wasted. The high prices of farm products cannot always continue at their present ratio. Therefore every farmer, so to speak, should "make hay while the sun shines," or should prepare for adverse conditions. From careful investigations that have been made at several points, it has been estimated that corn ensilage, based on the present prices of other forage plants is worth at least \$5.00 per ton. It is also generally admitted in the corn belt of the country that at least thirteen tons to the acre can be grown.

The writer has endeavored to get reliable data on the cost of putting up ensilage. Professor John Grisdale who is in charge of the experimental farm for the Dominion Government at Ottawa, Canada, made a report before the parliamentary agricultural committee. He estimated, after twenty years' experience, that the average cost of ensilage per ton would be \$1.50. This would include land rental, pay for labor involved, and everything in connection with putting ensilage in the silo.

J. A. Richardson, a prominent Iowa farmer, has written to the Wallace Farmer, as follows, on his estimate of cost, and experience with the silo: "I built my silo in 1908. It is 14x30 feet with a 3-foot pit, making 33 feet in height. I filled it that fall, and fed 65 head of cattle from January 15th until grass. Last year I planted corn especially for the silo and filled it with eight acres. The silo holds 115 tons, so I got 14 3-8 tons of ensilage to the acre. If anyone can get more feed to the acre than that, I would like to hear from them. I have not found anything equal to a silo for carrying stock through the winter cheaply.

"I will give you the cost of filling my silo this last year, including the cost of producing a ton of ensilage:

Rent of 8 acres at \$4.50 per acre. . . . .	\$36.00
Plowing 1 1/2 days with gang plow. . . . .	7.00
Harrowing 4 times. . . . .	4.00
Planting. . . . .	2.00
Seed Corn. . . . .	2.00
Cultivating 3 times. . . . .	8.00
<b>Total. . . . .</b>	<b>\$59.00</b>

Cost per ton to produce, 51 7-23 cents.

### COST OF FILLING.

Cutting 8 acres. . . . .	\$ 8.00
Eight men two days. . . . .	32.00
Three teams two days. . . . .	6.00
Ensilage cutter and gasoline engine, \$10 per day. . . . .	20.00
Gasoline, 50 gallons. . . . .	7.50

**Total. . . . . \$73.50**

Cost per ton in the silo, 63 21-23 cents.

"This makes a total cost of \$1.15 a ton to produce the corn and put in the silo."

Professor A. L. Haecker, of Nebraska, has studied the question of putting up ensilage very carefully. He writes as follows regarding the cost:

"I have taken results from the states of Wisconsin, Iowa, Kansas and Nebraska, and I find the variation among the different states much less than one would suppose.

### COST OF GROWING SILAGE CORN.

Rent of land per acre. . . . .	\$4.50
Plowing and harrowing. . . . .	2.00
Seed corn. . . . .	.25
Planting. . . . .	.30
Harrowing and cultivating. . . . .	2.25

**Total. . . . . \$9.30**

Yield, 13 tons per acre.  
Cost per ton, 72c.

"The rent of land in some sections might be higher than here given, but this is intended as a fair average for the Mississippi Valley states.

### COST OF FILLING THE SILO.

11 men per day. . . . .	\$22.00
7 teams at \$2.25. . . . .	15.75
1 traction engine. . . . .	5.00
Engineer. . . . .	2.00

Coal. . . . .	1.00
<b>Total. . . . .</b>	<b>\$45.75</b>

Silage cut per day, 75 tons.  
Cost to put in silo, per ton, 63c.  
**TO MACHINERY AND STORAGE.**

Cost of silo and harvesting machinery. . . . .	\$600.00
Interest at 6 per cent. . . . .	36.00
Depreciation and repairs. . . . .	58.00
Taxes and insurance. . . . .	6.00

<b>Total. . . . .</b>	<b>\$700.00</b>
Cutting 400 tons, per ton. . . . .	.25
Cost of putting in silo. . . . .	.63
Cost of growing corn. . . . .	.72

**Total cost for two or more farms, per ton. . . . . \$ 1.60**

Cost of 150 tons, 1 farm, per ton, \$2.02."

In Professor Haecker's estimates he has taken into consideration the cost of all machinery necessary for filling a silo. He has also taken into consideration the depreciation on the machinery and the interest on the money invested. In Ontario, Canada, in the dairy sections, where many farmers have silos, the machinery necessary for filling silos is owned usually by men who own threshing machines, who go from place to place and cut and fill silos the same as threshing. This, of course, saves the farmer from buying equipment for the one farm.

In a community where two, three or more farmers put up silos, they can buy an equipment between them and thus greatly reduce the expense. Take it for granted that it costs \$1.75 per ton, and ensilage is worth \$5.00 per ton, and we get 13 tons per acre, this would leave us a net profit of \$42.25 per acre.

It has been estimated that an acre of corn put in the silo has a value of at least \$55.00 while the same standing in the field and husk has a value of \$27.00, or in other words the silo more than doubles the value of corn.

This is a question which should be seriously considered by all farmers who are not using the silo.

In feeding silage and clover hay, or alfalfa, we have practically a balanced ration. Experiments have been conducted at Kansas and other stations which have shown that the grain ration could be cut down one-half the usual amount where alfalfa or clover hay and ensilage were fed.

Taking up the question of silos, there are many varieties built at the present time. These include cement or concrete, hollow brick, stone, common brick, steel boiler plate, and the common stave silo.

The writer visited one township last summer in Ontario, Canada, where a contractor was building no less than 36 cement or concrete silos for different farmers.

We believe for general purposes for the West and Central West, the common stave silos will give about as good satisfaction as any other make. From general observation it would seem that the common stave silo is worthy of recommendation. It combines simplicity and cheapness of construction with the requisite condition to preserve the ensilage in the very best condition for feeding. The life of a stave silo depends primarily on the wood used, and the method of construction, as well as the after care, such as frequent painting. A hundred ton silo will furnish 40 pounds of ensilage per day, per cow, for 25 cows, for a period of 200 days, which practically covers the feeding period in the stable. Ensilage makes an excellent food for cows during the hot, dry period in summer when the pastures are parched and brown. The principal advantage of a patent or boughten silo, which many companies are offering to the public at the present time, is that in the majority of these the staves are tongued and grooved. This has a tendency to keep the staves together when the silo is empty.

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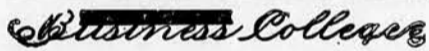
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In any size tract, at \$17 to \$40 an acre, depending upon improvements and distance from town. Write for new list, mailed free and postpaid. **E. G. INLOW, Palco, Kansas**

## A GOOD RANCH

In Chautauqua Co., Kan., 2040 acres, good improvements, good grass, plenty of living water, only two miles from railroad station. Will sell at a bargain or take some trade. **LONG BROTHERS, Fredonia, Kansas**

## MEADE COUNTY FARMS

400 farms, 160 to 640 acres, improved and unimproved, at \$12.50 to \$25 per a., easy terms. 320 a. 7 mi. Meade, in German settlement, 300 a. fine tillable land, 160 a. cult., price \$6,400. Experienced salesman wanted. **CHAS. N. PAYNE, Hutchinson and Meade, Kansas.**

## POOR MAN'S CHANCE

80 a., 2 mi. business part of town of 700 pop., almost new, 5-room house, barn, and other buildings, orchard, 70 a. tillable, dark, sandy soil, rented for gas and oil, \$1 per a. per year. Owner lives in Colorado, therefore is priced at a bargain. \$2,750 terms to suit. **B. H. DUNBAR, Tyro, Kansas**

## TREGO COUNTY

Lands for sale or exchange; prices \$15 to \$40 per acre, also city property and stocks of merchandise. If you have a good trade to offer, no matter where it is located or what it is, write us. **ED. PORTER LAND AGENCY, Wakeeney, Kansas**

## LAND SNAP

80 ACRES, Anderson County, Kansas, 6 miles from Greeley, 7 miles from Garnett, 60 a. in cult., balance meadow and pasture, 160 acres, joining Harris, Kan., all tillable, 100 acres in cult., balance meadow and pasture. Price \$55 per acre, well improved. **SICHEN BROS., Garnett, Kansas**

## For Exchange

\$3,500 stock of general merchandise. Owner wants to trade for land. Two-story brick and stone building. Laharpe owner wants to exchange for land. Fine 120 acres for sale. Owner will take dwelling as part pay. Write for full descriptions. We can match you on any good deal. **W. Mansfield Land Co., Ottawa, Kansas**

## FOR SALE

Sherman county lands, in any size tracts on most liberal terms. Write for prices, descriptions and illustrated literature mailed free and postpaid. **IRA K. FOTHERGILL, Real Estate and Inv., Goodland, Kansas**

FOR FREE INFORMATION about Allen county lands write **F. W. Frevert, (51 years a Kansan), Gas City, Kansas.**

## THE HOXIE REALTY CO.

Farms, ranches and city property. Some of the best wheat, corn, alfalfa and hay land in the West. Also good business propositions in Hoxie. For further particulars write us. **HOXIE REALTY CO., Hoxie, Kansas**

## Home seekers

Send for a copy of the Southwestern Kansas Homeseeker, the best land journal published. It's free to those wanting homes or investments. We make a specialty of lands on small payments and easy terms. Address **THE ALLEN COUNTY INVESTMENT CO., Longton, Kansas**

## Corn, Wheat, Alfalfa

Lands in Trego County, Kansas, where prices are advancing rapidly. Best opportunities in Kansas for homeseeker and investor. Write for our list, mailed free and postpaid. Live agents wanted. **D. W. KELLER LAND COMPANY, Wakeeney, Kansas**

## KINGMAN CO. LANDS

Banner Wheat and Corn County of the State. Write for Selected List. **BROWN REAL ESTATE CO., KINGMAN, KANSAS**

## GOOD FARM

344 acres adjoining town, highly improved. Six acres alfalfa, 5 miles fence, mostly woven wire. Further particulars write **J. C. ELVIN, Harper, Kansas**

## A BARGAIN

160 ACRES, all tillable, 1/4 mile from Meade, Kan. House 4 rooms, barn, two wells one flowing, 110 a. in cult., 15 acres in alfalfa, balance pasture. Price \$5,000, \$2,000 cash, bal. 3 yrs. at 6 per cent. **L. F. SCHUEMACHER, Owner, Meade, Kansas**

## MISCELLANEOUS

FOR SALE and EXCHANGE. **BUY OR TRADE with us. Send for list. BERSIE-MEREDITH, Eldorado, Kansas**

## FOR EXCHANGE—Wild lands, farms,

city property and stocks of merchandise, for other good propositions. Describe what you have to offer. Exchange list free. **H. B. Wann, 205 Campbell, Springfield, Missouri.**

## TO EXCHANGE FOR KANSAS FARM.

Suburban grocery stock, will invoice about \$3,000. Will assume some on farm. Residence properties in Kansas City and 20 farms, Kansas and Missouri, ranging from 80 to 400 acres each to exchange. **J. E. REED REALTY CO., 628 N. Y. Life, Kansas City, Mo.**

## TO EXCHANGE—17-room hotel in south-

ern Iowa to trade for cheap land or stock of goods. Several farms and city property to trade for stocks of goods. I can match any kind of a trade. **Henry G. Parsons, Lawrence, Kansas.**

## FOR SALE AND EXCHANGE.

Kansas and Missouri farms for city property, stocks merchandise, and other farms. Describe what you have, will make you a good trade. List your farms for exchange with us. **R. E. Woodward Real Estate & Investment Company, 264 N. Y. Life Bldg., Kansas City, Missouri.**

## FOR SALE OR EXCHANGE.

Alfalfa land in shallow water district of Oklahoma in 40 to 640 acre tracts. \$20 to \$65 per acre. For particulars write **C. B. RHODES R. E. & INV. CO., 4400 Helst Bldg., Kansas City, Mo.**

## FOR SALE OR EXCHANGE.

240 a. less the right-of-way of the R. R. 1/4 mi. Kincaid, Anderson Co., Kan., town of 500 pop. and 2 R. R., 160 a. fine valley land; 80 a. rolling upland pasture; good new 7-room house; large frame barn; outbuildings; orchard. Price \$50 per a. A snap. **SEWELL LAND CO., Garnett, Kansas**

## FOR SALE OR EXCHANGE.

Northeastern Kansas corn, clover, and blue grass farms, stocks of merchandise, etc., for other good propositions. Lands are steadily advancing in price; now is the time to invest. Write or see us. **C. W. HINNEN REALTY CO., Holton, Kansas**

## FOR SALE OR EXCHANGE.

Small stock of new and second hand furniture, located in a good county seat town. R. R. division point, good business at a bargain or would take a good quarter of western Kansas land in exchange. Also 1,460 a. ranch, about 400 acres cult., 100 a. old alfalfa, 50 acres new, and 100 acres more will be seeded this year. If not sold, will afford pasture for 250 head of stock; only four miles from good shipping point in north central Kansas. Price \$25 per acre; terms to suit. Will take part trade. **LEWIS & ELDRED, Phillipsburg, Kansas**

## MEETING OF KANSAS GRAIN GRADING

COMMISSION. Notice is hereby given that under the provisions of Chapter 222 the board of grain grading commission will meet at the office of the Governor in Topeka, on the 25th day of July, 1910, and establish the grades of grain to be known as Kansas grades; to be in effect on and after the first day of August, 1910. **G. W. Glick, Thomas Page, J. G. Maxwell, Secretary, Grain Grading Commission.**



# Kansas Land

## FARM LAND

### A No. 1 Corn and Alfalfa Farm

of 250 acres, 180 acres in cultivation, 30 pasture, 10 in alfalfa, 6-room house, barn for 6 horses, hay mow, granary, corn crib and other buildings; fenced and cross-fenced; watered by well 20 feet deep; running water in pasture, good orchard. This farm is 2 miles from a good railroad town, Catholic church and school, 3 miles from another railroad town, 1 mile from school and only 14 miles from the packing houses of Wichita. Possession August 1, 1910. Terms to suit purchaser.

THE NELSON REAL ESTATE & ING. COMPANY.  
137 N. MAIN STREET, WICHITA, KANSAS.

## IF YOU WANT the RIGHT LAND

at the right price in the right place, from the right man.  
Write right now to

H. D. HUGHES, McDONALD, KAN.

## Real Estate Dealers, Attention!

If you want to know how and where to buy advertising space in a big farm paper and a daily paper covering the richest agricultural sections of the United States for less than a half cent a line per thousand circulation, write

Roy O. Housel, 625 1-2 Jackson St., Topeka, Kan.

## WICHITA COUNTY

160 acres choice agricultural land only 10 miles from Marlenthal and 17 miles from Leoti. All smooth and tillable black soil, free from sand or stones. Sheet water at 100 feet. Good neighbors and a bargain at \$1,200. Further particulars on application.

ALBERT E. KING, McPHERSON, KAN.

IF YOU ARE INTERESTED IN CENTRAL KANSAS, WESTERN KANSAS OR COLORADO LANDS FOR A HOME OR INVESTMENT, STATE YOUR CHOICE TO C. C. WALLACE, BROOKVILLE, KAN.

ELLIS AND TREGO COUNTY LANDS at the lowest prices, on the best terms. Write for list, sent free.  
C. F. SCHEPMANN, Kansas

1120 ACRE COMBINATION RANCH, 25 head horses and colts, above average, and one registered Percheron stallion. Write for particulars. 80 acres first-class alfalfa land in famous Artesian Valley at a great bargain. WM. MILLER, Meade, Kansas

OTTAWA COUNTY BARGAINS. 160 acres, 3 miles town, 110 cultivation, balance pasture, 4-room house, barn, 65 acres wheat, all goes with possession, \$6,500. Easy terms. New list free.  
J. S. BOYLE, Bennington, Kansas

FREE List of lands, ranging in price from \$10 to \$30 per acre, well located, near churches, schools and markets in Rawlins and Cheyenne counties, Kan., and Hitchcock Co., Neb. Send your name today.  
S. C. ALLEN, Herndon, Kansas

WHAT CASH WILL DO FOR 30 DAYS. Buy 280 a. good Kiowa Co. sandy land at \$30. 160 a. 2 1/2 miles of Co. seat, \$500. 640 a., well improved, 3 miles Co. seat, \$50. Other bargains.  
H. M. DAVIS REALTY CO., Greensburg, Kansas

ASK WHY LAND IN SHERMAN CO., KANSAS will make the investor or the farmer money purchased at present prices. Many inducements here that are not to be found elsewhere.  
T. V. LOWE REALTY CO., Goodland, Kansas

## FREE LAND

AND FREE WATER RIGHTS IN NORTHWESTERN COLORADO  
Write to-day for map and booklet telling how to get 160 or 320 acres of government land. Deep, Rich Soil in River Valley. Land and irrigation water absolutely free. Railroad now being built through a million acres of free land. Fine crops of grain and vegetables; good local market. Best grass country in the west. We have no land and no water rights to sell. They are free.  
W. F. JONES, Gen. Traf. Mgr., D. N. W. & P. Ry. Room 708 Majestic Bldg. Denver, Colo.

COLORADO FRUIT LANDS That pay big interest on the capital invested. Reasonable prices and terms. Write for full information, stating what you want.  
Hotchkiss, Colorado  
PAUL WILSON.

LANDS that raise big crops of all staples, near towns, churches, schools and neighbors, \$10 to \$25. Will locate you on a 320 acre homestead relinquishment. Act quickly. Write for full information.  
Empire Land & Cattle Co., Akron, Colorado.

FAMOUS Grand River Valley lands pay big interest on capital invested. Prices advancing rapidly; now is the time to buy. Write for large, 60-page, descriptive pamphlet, mailed free upon request.  
\$ FOR \$ REALTY CO., Fruita, Colorado

MONTEZUMA VALLEY—Land of red soil; produces all crops: fruit, hay, wheat, oats, barley, potatoes. Prices \$30 to \$100 per acre and advancing rapidly. Now is the accepted time. Literature free, describing this beautiful valley. Closson & Huff, Cortez, Colorado.

LANDS! LANDS! In the famous San Luis Valley. Land from \$40 to \$125. Crops abundant. Unexcelled water rights. We live here, are old ranchers here, and own land here. Write for handsome illustrated booklet, mailed free.  
DWIGHT G. GOVE, Monte Vista, Colo.

LA PLATA COUNTY Irrigated land \$25 an acre and upward; in new country, about to be tapped by another railroad—the C. & S. Fruit, vegetables and all staples produce big crops. Price lists and large pamphlet free.  
BOYLE REALTY CO., Durango, Colorado

BEST BIG COLORADO OPPORTUNITY. Former 4400 ranch now in alfalfa, beans, cantaloupes. Water ample. On Santa Fe and Missouri Pacific near Pueblo. Four stations on land. At half real value.  
BRANDON LAND & LOAN CO., Brandon, Colorado

640 ACRES fenced and cross-fenced, 12 miles of Denver, three miles of Parker, Colo., well grassed, has living water sufficient to water 200 head of stock every day in the year, \$12 per acre, half cash, balance in one and two years at 6 per cent. Several other bargains just as good. Write  
A. J. SIMONSON, 214 Cooper Bldg., Denver, Colorado

EASTERN COLORADO—The home of wheat, barley, millet, cane, broom corn, speltz and all staples. Lands are now very cheap, from \$9 to \$11 per acre for raw land and to about \$20 an acre for improved farms, but are rapidly advancing in price. Write for free printed matter, stating what you want.  
McCRACKEN LAND CO., Burlington, Colorado

KIT CARSON COUNTY, COLORADO. Corn, wheat and alfalfa lands, at \$10 to \$25 per acre, according to location and improvements. Prices are rapidly advancing, and the time to buy is now. Write for our free illustrated booklet, stating what you want. A live agent wanted in your locality.  
A. W. WINEGAR, Burlington, Colorado

STOP! LOOK! LISTEN! to what we have to say in regard to our business. We have a large list of the best lands in Morgan County. Should you desire a good irrigated farm, good dry land or a homestead, communicate with us or come and give us an opportunity to show you what we have.  
B. W. JACKSON REALTY CO., Fort Morgan, Colorado

GOOD LAND, Kit Carson County, Colo., \$5.50 to \$25. Why stay east and pay big rent when you can come to Kit Carson county and buy a home for the rent you pay for the eastern farm one year. Land produces wheat, barley, oats, corn, alfalfa, etc. Write for colored map of Colorado, sent free.  
G. W. DINGMAN, Stratton, Colorado

IMPORTANT MESSAGE TO CATTLEMEN. 250 head Hereford and Shorthorn cattle, cows, 2-year-olds, yearlings and calves with 150 acres deeded land. Improved and lease on three sections. Plenty water, about 8 miles of fence. Plenty good range. Located about 15 miles railroad town. Can be bought at very low price if taken at once.  
H. SHELTON, Ordway, Colorado

BEST BARGAIN IN THE WEST. Fruit and stock farm, well improved, in center of Montezuma Valley, close to county seat, land will be worth several times its present value for orchard purposes, pays 25 per cent annually on a valuation of \$28,000.  
VINCENT & WOODS, Cortez, Colorado

BARGAINS IN IRRIGATED LANDS in the famous San Luis Valley. Good water rights go with the lands. 320 a., 4 mi. from Alamosa. Good improvements, grain, alfalfa and hay. Two good artesian wells. Fine farm. Price \$50 per a., \$20 a. improved. Close to school. Fine soil, grows grain, alfalfa and potatoes. Great bargain at \$35 per a. 160 a. Improved. Hay, grain and pasture, near school, \$35 per a. 320 a. partly improved, all fenced, \$30 soil. Splendid snap at \$25 per a. For further description write  
BUTLER & HINES, Alamosa, Colorado

MUNTZING PAYS THE FREIGHT. Farms, Sheep, and Also Cattle and Horse Ranches.  
I own 40,000 acres of choice lands in Washington and Yuma counties, and am offering both improved and low lands at prices far below all others and on terms to suit all purchasers. Monthly payments if desired. 160 and 320 acre relinquishments adjoining lands offered for sale. Best of wheat, oats, cane, corn, potatoes and alfalfa lands. I refund railroad fare and hotel bills to those who purchase from me. All lands are level, smooth and rich farm lands. NONE better. COME NOW and buy homes and get the free ride. Why pay big commission when you can buy direct from the owner? Write for maps, plats, price lists and explanations and proofs to  
AUGUST MUNTZING, Akron, Colorado

EASTERN COLORADO Farm lands near the new and rapidly growing town of Brandon for \$10 to \$15 per acre. Great opportunities for homeseeker and investor. Write for full information.  
C. D. BLANCHARD, Brandon, Colo.

GRAND RIVER VALLEY The famous fruit district of the United States. Fruit lands will pay an average of 20 per cent on the capital invested. Write for free descriptive booklet.  
R. H. BANCROFT & CO., Fallsdale, Colo.

320 Acre Homesteads There are only a few left so you must act quickly. Also cheap deeded lands, including both stock ranches and farm lands and homestead relinquishments for \$150 and upwards. Write for descriptive circular, mailed free upon request.  
G. W. FRANK, Arlington, Colorado

EASTERN COLORADO LANDS \$12 to \$25 per acre; about 1-3 cash, balance to suit purchaser. Also homestead relinquishments for sale cheap.  
A. TEEWILLIGER, Prop., Byers Hotel, Byers, Colorado

SAN LUIS VALLEY Lands where big crops of potatoes, alfalfa, peas, etc., grow to perfection. Reasonable prices; good terms. Write for illustrated literature, mailed free.  
W. P. FISHER COMPANY, La Jara, Colorado

FREE Illustrated descriptive pamphlet and booklets telling all about Eastern Colorado; choice land at \$10 to \$20 per acre.  
KENNEDY LAND CO., Limon, Colorado

I. L. DARBY THE PIONEER LAND MAN Government and Deeded Lands and Town Property, 320 acre Homestead. Snap in relinquishments. Write for new illustrated folder, mailed free.  
GROVER, COLORADO

EDUCATE YOURSELF As to irrigated lands and prices of water. Montezuma Valley LANDS SELL QUICKLY to the MAN WHO KNOWS. WRITE HARRY V. PLYE, the Guide, for information concerning the cheapest irrigated system in the Middle West.  
DOLORES, the GATEWAY, Dolores, Colo.

GRAND RIVER VALLEY The famous orchard district of the western slope of Colorado, orchard tracts in any size to suit purchaser at various prices. Bearing orchards often pay \$500 an acre net profit per annum. Write for full information.  
E. A. LOOMIS, Fruita, Colorado

HOTCHKISS, CO LO. In the best fruit section of the Western Slope. Good fruit land, with water right; can still be bought for \$100 to \$150 per acre. Values will undoubtedly double and treble soon. Send your name for large illustrated pamphlet, mailed free.  
O. F. DICKSON & CO., Hotchkiss, Colorado

PAONIA, COLORADO In the best fruit section of the Western Slope. Fruit land pays 20 per cent per annum on the capital invested. Prices still reasonable, but advancing rapidly. Write for free illustrated folder, containing much interesting information.  
C. C. HAWKINS, Paonia, Colorado

## THE STRAY LIST

Washington Co.—J. A. Maxwell, Co. Clerk. HOGS—Taken up on the premises of Henderson Long in Mill Creek township about February 15, 1910, 2 black barrows unmarked, averaging about 100 pounds in weight and valued at \$17.

To whom it may concern: This will notify you that Mads Sorrenson, a citizen and householder of Elm Creek Township, Morris County, Kansas, did, on the 11th day of May, take up the following described stock, on his above described premises, as strays:  
Four yearling white-face heifers, one of them bob tailed, and one of them has its right ear frozen partly off; and one white face yearling bull, with a red streak across his face; the cash value of the above stock is estimated to be \$60.  
GEO. J. PARKER, County Clerk, Morris County, Kan.

Saffarrans' Jersey Sattle. This week's Kansas Farmer contains the announcement of Mr. Geo. V. Saffarrans of Palmyra, Mo., one of the best known Jersey cattle breeders in the middle west. Mr. Saffarrans has at the head of his herd the bull, Blue Bell's Owl 79641, a bull of great merit both as a show animal and a breeder. Mr. Saffarrans offers for sale 30 cows in milk, 16 yearling heifers bred by Emminent Rosette, a half brother to the noted Finacial Countess 2d, 15 heifer calves and 10 choice young bulls. Write Mr. Saffarrans at once and mention Kansas Farmer.

## Colorado Land

### EVERY DAY UNION PACIFIC EXCURSIONS

Round trip from Kansas City, or any river point for \$17.50 to Denver, Colorado Springs and Pueblo, good until Sept. 30th, with privilege of stopping off at Kit Carson, Colo., to inspect our lands. Write for our land folder.  
Kit Carson Company, Kit Carson, Colorado

## PAONIA, COLORADO

Would you buy 240 acres of undeveloped fruit land if you knew it would make you 100 per cent profit in three years? We have such a thing only 1 1/2 miles from town. We want an opportunity to prove it to you. Full details on application.  
CLINE & HUFTY, No. 284, Second Street  
Reference—Fruit Exchange State Bank, corner Third and Grand.

SEND FOR A COPY of our free book, telling about good homes and money making investments. Illinois Realty Co., Monte Vista, Colorado.

HOMESTEAD RELINQUISHMENTS And cheap deeded lands, Kiowa county, is still cheap, but is bound to develop several times in the next few years. Write for further information.  
LINN & CHERMAK, Haswell, Colorado

EASTERN COLORADO lands \$10 an acre and up. Live agents wanted. Write for our descriptive literature and county map, mailed free.  
HAYNES LAND CO., Vona, Colorado

SAN LUIS VALLEY. Irrigated land with perpetual water rights in tracts to suit on easy terms. Prices still far below real value. Produce alfalfa, peas, potatoes, wheat, oats and fat stock.  
THE TRANS-MISSISSIPPI INV. CO., Inc., La Jara, Colorado.

YUMA COUNTY, COLO. Lands that raise big crops of all staples, \$10 to \$15 per acre. Great opportunities for homeseeker and investor. I own a few quarters which I will sell cheap.  
A. L. KISSINGER, U. S. Commissioner, Yuma, Colorado

WASHINGTON COUNTY, COLORADO. Corn and wheat lands \$7 to \$30 per acre. Prices advancing rapidly—now is the time to buy. 320 acre homesteads and cheap relinquishments. Write for free list.  
THE AKRON LAND CO., Inc., Akron, Colorado

LIVE AGENTS wanted to sell Washington County land; big crops are being raised every year. Write for offer. The Clarye Land Co., Akron, Colorado.

LIST OF LANDS for sale at \$5 per acre, and up, free. 320 acre homesteads located. Relinquishments for sale. R. A. Shook, Akron, Colorado.

\$7 to \$15 per a. on Liberal Terms. Homestead relinquishments \$100 to \$800 each. Where rainfall is plentiful and prices are rapidly advancing. Write for full information stating what you want. Maher & Hanks, Deer Trail, Colorado.

CHEYENNE COUNTY, COLORADO. Where land often pays for itself in one crop. For \$8 to \$16 we can sell you choice land, well located, near schools, churches and markets. Write or see  
WILD HORSE LAND CO., Wild Horse, Colorado

ARE YOU MAKING MONEY? 95 per cent of the San Luis Valley farmers are getting rich. Why? Because they are producing the finest pork and mutton in the world at lowest possible cost. Our free illustrated folder tells how. Write for one. C. W. FOSTER, Monte Vista, Colo.

KIOWA COUNTY, COLORADO. Corn, wheat and alfalfa lands \$8 to \$15. Homestead relinquishments \$250 up. Folder and copy of the Homestead laws sent free. A few 160 acre homestead tracts under prospective irrigation yet.  
THE WESTERN REALTY CO., Eads, Colorado



# TEXAS LAND

## LOWER PECOS VALLEY IRRIGATED LANDS Pay 50 to 200 Per Cent Net Annual Income in Alfalfa and Fruits.

We are the Owners' Exclusive Selling Agents for Arno or Zimmerman lands sold in tracts from 10 acres and upwards including perpetual paid-up water rights and proportionate ownership of the irrigated system. These lands will pay 100 per cent annual income.

We also have a number of section tracts of artesian land in the valley, back of the canal systems which we can sell at from \$6 to \$8 per acre on easy terms.  
Ask for Arno or Zimmerman descriptive folders. Address  
**THE HEATH COMPANY,** 109 W. 7th St., Topeka, Kan.

### GOOD RANCH.

3,268 acre ranch improved, \$5 an acre. Robertson Co., 7 miles county seat. Adjoining land couldn't be had for twice our price. Would sell part or all. All fine grass and much first class farm land. Detailed description and plat free.  
**C. A. BABCOCK,** Harper, Kansas

**Dalhart, Texas** is where we are located and we have some land bargains for the buyer. Write for our free, handsomely illustrated book or come to Dalhart and let us show you a country without a fault.  
**J. N. JOHNSON LAND COMPANY,** Dalhart, Texas

# Oklahoma Land

**FREE INFORMATION** about Oklahoma. Homer H. Wilson. Here since 1893. Enid, Oklahoma.

**MAJOR COUNTY** corn, wheat and alfalfa lands. Lowest prices. Best terms. Information free. J. Nile Godfrey, Fairview, Oklahoma.

**WRITE L. R. KERSHAW,** Muskogee, Oklahoma, for free information about Eastern Oklahoma farms.

**FOR FREE** information about Eastern Oklahoma alfalfa farms write Atwood & Zemper, 106 N. Second Street, Muskogee, Oklahoma.

### CADDO COUNTY FARMS.

Best in Oklahoma for homes or investment. Your address on postal card will bring descriptive list and literature.  
**BALDWIN & GIBBS CO.,** Anadarko, Oklahoma

### CORN, OATS, WHEAT

and alfalfa and all staple crops grow to perfection here in the garden of Oklahoma. Prices reasonable. Write for list and descriptive literature.  
**C. E. FOCHEL,** Newkirk, Oklahoma

### EASTERN OKLAHOMA

Improved farm, 160 acres, good, new house, half section of unimproved land. Very fine. Several other good bargains. Write me if you want to know about Eastern Oklahoma. T. C. BOWLING, Owner, Fryor Creek, Oklahoma.

### WASHITA VALLEY LANDS.

From \$10 to \$60 per acre offer great opportunities for investment. They are well located near railroads, towns, churches and schools. Write for further information.  
**JOSEPH F. LOCKE LAND & LOAN CO.,** Wynnewood, Oklahoma.

## "Hough Sells The Earth"

in Caddo county, fertile, rich, cheap. Send 10 cents in stamps for handsome colored county map of Oklahoma, circulars and list. Letters answered in German or English.  
**W. E. HOUGH,** Apache, Oklahoma

### CADDO COUNTY, OKLAHOMA.

corn, wheat, cotton, and alfalfa lands \$20 to \$75 per acre, according to improvements and distance from towns. Lands are advancing rapidly. Now is the time to buy. Write for full information.  
**J. ELZIA JOHNSON,** Hinton, Oklahoma

### IMPROVED FARMS.

180 acres, 140 in cultivation, good 9-room house, barn 45x65, tool shed, and granary, 40x40, orchard, telephone, R. F. D., near school, four miles county seat. Price \$9,000. Write  
**J. T. RAGAN,** Vinita, Oklahoma

## 160 ACRES 160

Fine land, 100 acres in cultivation, 6 1/2 miles from railroad. Price \$4,000. Terms on part.  
**THE FIRST LOAN & MORTGAGE CO.,** Watonga, Oklahoma

### A BARGAIN.

320 a. 7 miles of county seat, 3 1/2 miles of R. R. town, 1 1/2 miles to school, 160 acres deeded, 160 a. school land, 4 miles of 4-wire fence, 12 a. alfalfa, fine large orchard, 7-room house, summer kitchen of 2 rooms, 2 barns 40x56 and 40x44, large granary, 2 wells and mills, 2 hen houses, 8x28, all the crop as follows, Kafir corn, good soil, 45 a. pasture. Price for 30 days, \$11,000.  
**BATTEN REALTY COMPANY,** Medford, Oklahoma

### FOR QUICK TRADE—50 a. farm in Pike Co., Ark., 40 a. in cultivation, small house, large shed, good well of water, running stream of water, some good timber, all under fence. Price \$2,000. Want good stock, mares, cows and some good hogs. Will give good prices for stock if the right kind. Land clear. Reasons for trading. I have 2 farms and want to trade one for stock to place on the other one. Box 315, Claremore, Oklahoma.

### EASTERN OKLAHOMA.

200 acres, 7 miles from Muskogee, 2 miles of railroad town, all good valley land, living creek water, 20 acres cultivated, balance meadow, all fenced. In white settlement, on main road, close to church and school. Price \$20 per acre.  
Many other farms, improved and unimproved at \$25 to \$35 per acre.  
**R. B. BEARD & CO.,** Muskogee, Oklahoma

### A FEW BARGAINS NEAR WAGONER, OKLA.

200 acres 5 miles from town, good new 5-room house and barn 60x80, all tillable. Price \$28 per acre, 40 acres 1/2 mile from Wagoner. All smooth, fine land, every acre tillable. Price \$27.50 per acre. Write  
**W. H. YAWKENCE,** The Land Man, Oklahoma.

### OKLAHOMA FARMS.

300 acres 3 1/2 miles north of good town, 130 acres in cultivation. All A No. 1 bottom land, fenced, perfect title. Price \$25 per acre. Terms. Lots of other bargains.  
**BETTES LAND & INVESTMENT CO.,** Muskogee, Oklahoma

### A 160 ACRE FARM

near a town like Thomas, Okla., is a sure thing. Write for particulars. Don't fail to see our land before buying elsewhere.  
**GRANT INVESTMENT COMPANY,** Thomas, Oklahoma

## Eastern Oklahoma

**FARMS FOR SALE.** We own and control over fifty thousand acres of choice farm lands, located in the most fertile and beautiful counties in Eastern Oklahoma, namely: Craig, Mayes, Nowata and Rogers, the "Garden Spot" of the new State, that will produce successfully corn, wheat, oats, timothy, clover and alfalfa. Low prices. Easy payments. Perfect titles. Greatest opportunity ever offered the farmer of small means to procure a home in the rain and corn belt. Agents Wanted. Write **ALLEN, HART & CO.,** Suite 308, Commerce Bldg., Kansas City, Missouri.

## Oklahoma Land

where corn, wheat, alfalfa, and cotton are making the farmers rich. We specialize on Oklahoma, Cleveland, Logan and Washita counties. Fine alfalfa lands \$30 and upwards. Write for list and printed matter, mailed free. We also lead all in Oklahoma City property.  
**FARM & HOME INV. CO.,** Culbertson Bldg., Oklahoma City, Okla.

## MISSOURI LAND

**IMPROVED** corn, clover and blue grass farms 40 miles south Kansas City. \$50 to \$75 per acre. Jot M. Wilson & Son, Harrisonville, Missouri.

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**5,000 ACRES** cheap farm land, tracts to suit; Green County; part improved, balance good timber; good soil and water; \$10 per acre upward; liberal terms; descriptive literature free. **Ozark Land Co.,** 305 1/2 Boonville, Springfield, Missouri.

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Dairy truck, poultry and fruit lands, \$5 to \$50 accordingly, on terms to suit. I own over 10,000 acres and can give you what you want. Large illustrated folder, list and maps free.  
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\$15 lands near Cheyenne, grows crops equal to \$100 lands anywhere. Don't drown out or dry out—have rail enough. Finest climate and water. Maps free.  
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120 acres, one mile from town, all bottom land, no overflow, alfalfa land. Good improvements. Send for photo.  
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## 80 Angus Bulls

OF SERVICEABLE AGE. Herd Headers and Range Bulls. Many of them by Champion Itos.  
**SUTTON FARMS, Lawrence Kan.** 500 HEAD IN HERD.



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**5000** March lambs ready to deliver in September. Average 65 pounds. Clean, healthy stuff. Priced right. Address **BOX 721, PHOENIX, ARIZ.**

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**10-SCOTCH BULLS-10**  
 from 10 to 14 months' old. One roan, 9 reds, sired by show bulls and out of show cows. Must be sold to make room. Priced at \$75 to \$125. These are all good. I make steers out of poor ones. Come at once. They will suit you.  
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 A few choice heifers for sale, nicely bred and good individuals, priced reasonable. Write or come and see my herd.  
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 Have on hand a few young red bulls ready for service that are out of splendid milking dams and have good beef form. No better breeding could be wished. Can spare a few females. Prices moderate.  
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 Five extra good Scotch and Scotch topped bulls, 10 months old. Roans and reds, sired by Victor Archer and Forest Knight by Gallant Knight. Priced right.  
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 Scotch Shorthorn cattle and 20 bred sows and a few good spring boars of large type Poland China hogs. Write me what you want. No trouble to answer letters. Bell Phone.  
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 Shorthorn cattle, large type Poland China hogs, 10 spring boars, priced right. Write me your wants. I meet parties at trains. We can do business. Come and see me.  
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 We have sold Scottish Archer and will now offer a few choice heifers.  
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**JERSEYDALE STOCK FARM**  
**IMPORTED JERSEY CATTLE.**  
 We offer for sale the Imp. bull Noble of Trinity 86301, dropped March 31, 1908; a show bull from the tip of his horns to point of his tail, a great individual in every respect, with breeding surpassed by none. His dam is the great cow Victress 2nd 9769 H. C. Sire is the great bull Noble of Oakland's P. 3999 H. C. His color is rich golden fawn, good size, good bone. We also offer some high class Imp. heifers which are bred to the kings of the breed. We solicit correspondence from parties wanting high class Jerseys.  
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 offers a few choice cows in milk and some bred heifers. Milk and butter records accurately kept.  
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 Headed by Blue Bell's Owl 79441. For sale—30 cows in milk, 10 excellent yearling heifers, daughters of Eminent Rosette, 15 heifer calves and 10 choice bull calves. Special prices on the bull and heifer calves. Inspection invited.  
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I have ready for service a few grandsons of Merry Maiden's Third Son, Financial Count, Eurybia's Son and Fontains' Eminent. Prices and extended pedigrees upon application. These bulls will make excellent dairy sires and are fit to head any herd registered in A. J. C. C.  
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**ALBA DAIRY 125 HEAD REGISTERED HOLSTEIN-FRIESIANS**  
**LARGEST HERD OF THIS BREED IN IOWA.**  
 Barns Sanitary—Herd Tuberculin Tested Twice Yearly.  
 At the head of herd King Segis Hengerveld Vale who is son of the famous King Segis (sire of 2 record-breaking daughters), grandson of Hengerveld De Kul (sire of 100 A. R. O. daughters, 4 above 30 lbs.), great grandson of Saddle Vale Concordia the first 30-lb. cow. A. R. O. COWS FOR SALE. Young, sound, free from disease. Large official milk and butter records; rich breeding; splendid individuality. **BULL CALVES FOR SALE** from 1 to 6 months old.  
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**SUNFLOWER HERD HOLSTEIN-FRIESIANS.**  
 Those desiring a HIGH testing A. R. O. sire to head herd should get prices and descriptions on my KING WALKER service bulls. The three nearest dams on all these bulls average from 25 pounds to 29 pounds butter 7 days.  
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 Offers bargains in a carload of cows and heifers and a few bulls 9 to 16 months old. All tuberculin tested.  
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 Son of the \$1,500 Grand Victor X1635 150364 heads my herd of Double Standard Polled Durhams. A few extra good, blocky, thick-fleshed young bulls for sale. Inspection invited. Farm adjoins town.  
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**YOUNG HEREFORD BULLS.**  
 A choice lot ranging in age from 12 to 20 months, sired by Mystic Baron; all good ones, in fine shape. Among them are some choice herd headers. Prices right. Visitors welcome. Write your wants.  
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**STALWART DUKE 117874.**  
 Heads cur Berkshires, he formerly headed the Kansas Agricultural herd, his sire was Silverlips Revelation by Revelation. His dam was Hood Farm Duchess 18th 93300. Choice lot of spring pigs for sale. J. M. Nielson, Marysville, Kansas.

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**MOSSE OF KANSAS**  
 Breeder of O. I. C. Swine.  
 "The best spring pigs in Kansas."  
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 Pure bred Ohio Improved Chester White swine. Few Sept. gilts for sale either bred or open. Booking orders for early spring pigs. Satisfaction guaranteed.  
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 Strictly up-to-date Imp. Chester Whites of the best breeding and individuality. A few choice fall gilts and a fine lot of spring pigs to offer. Prices reasonable.  
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**ALFALFA STOCK FARM**  
 Durocs of the best, can supply you singly or in carload lots. Sired by the best boars in the west, from sows equally well bred.  
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**"DUROCS GROWN IN THE OZARKS."**  
 Ohio Chief and Col. Blood. Litters by Muncie Chief, Model Prince, King of Models, Inventor, The King I Am, Advance; several by Col. Carter, my leading herd boar. They are all grown right, are good, and we answer all letters of inquiry.  
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**BRED SOWS, AUGUST FARROW.**  
 Duroc sows and gilts sired by Bell's Chief 4th and bred to richly bred boars. Will sell and ship when safe.  
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**20 Duroc Jersey Gilts**  
 Large Spring yearlings bred for Summer litters. They are large with lots of quality. The best of breeding, priced reasonable. Write today. They are bargains.  
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**JEWELL CO. HERD**  
 headed by Bonrey K. 47075, all prominent blood lines represented. Fall sale Oct. 27. Sow sale Feb. 1, 1911.  
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**TILLER'S RICHLY BRED DUROCS.**  
 Leading strains and choice individuality. 100 good pigs. Write your wants.  
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**QUICK SALE**  
 Fall boars of best of breeding and quality at bargain prices for quick sale; also a few bred sows for June farrow of the best of breeding and bred to good boars. Write at once.  
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**THE MORTONS QUALITY AND SIZE POLAND CHINAS.**  
 Herd headed by Equipment 51580 by Impudence. For quick sale 20 summer and fall gilts sired by son of Meddler 2nd, bred for August farrow. Also 3 fall boars. All representations guaranteed.  
**THE MORTONS, Tampa, Marion County, Kansas.**

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 Sired by First Choice, as by Grand Chief. Gilts bred to Little Bear, a grandson of On and On. Those offered for sale are the tops of a large bunch. The gilts and the price will please you. Write right now to Young & Kimmerring, Glasco, Kansas.

**30 BRED POLAND CHINA GILTS**  
 for sale. Spring and summer farrow, bred for April and May litters, choicest blood line, also 5 mature sows and boars ready for service; one by Meddler. Reasonable prices.  
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**HIGHVIEW BREEDING FARM**  
 Devoted to the Raising of **BIG BONED SPOTTED POLANDS**  
 The Farmers' Kind. The Prolific Kind. I am now booking orders for spring pigs to be shipped when weaned. Pairs or trios; no kin.  
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**200 LARGE TYPE POLAND CHINAS**  
 Herd headed by Big Hadley, Long John 2d and John Ex. Young stock for sale at all times. A few choice Hadley boars.  
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**HARTER'S BIG KIND POLAND CHINAS**  
 Headed by Mogul's Monarch 45858 and Capt Hutch 39068. Over 100 choice pigs to select from. Visitors made welcome. Also Barred Rocks.  
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 Headed by Pawnee Look. I have bred pure bred Poland for 20 years and have learned many valuable lessons, and in the future shall breed nothing but the big smooth kind. More hog and less hot air.  
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**WALTER'S BIG SMOOTH POLAND CHINAS.**  
 Expansive, one of the best living sons of Expansion, heads herd. A few choice fall gilts bred to Expansive for fall litters for sale.  
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**MEISNER'S BIG POLAND CHINAS.**  
 Headed by Metal Choice, sows are daughters of such sires as Nebraska Jumbo, Pawnee Chief, Big Hadley, etc. Fifty fine spring pigs to date and more sows to farrow. Inspection invited.  
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 10 January boars, \$15 each.  
 15 January gilts, \$15 each.  
 17 yearling gilts bred for August and September farrow, \$30 each.  
 Good breeding and individuality.  
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 The greatest show and breeding herd in the West. Write your wants and they will please you. Buy the best and make the most. They breed the kind that win; the kind you want. Address  
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**BIG STRONG SEPTEMBER BOARS.**  
 Sired by Guy's Monarch, the boar with frame for 1,000 lbs., and a 10 1/2-inch bone. Out of dam by the noted boar First Quality. Low prices for quick sale; must make room for spring pigs.  
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**2 YEARLING BOARS FOR SALE.**  
 Fine Metal by Gold Metal and John C. Hadley by Hadley Boy both good individuals and have made good as breeders. Will price reasonable.  
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**LAREDO HERD.**  
 Poland Chinas headed by Impudence Style 133237 and F. R.'s Meddler by Meddler for sale. 15 fall gilts bred for fall farrow and 9 other gilts.  
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**PRINCE HADLEY** heads our Poland China herd. His spring pigs are great. Others by Colossus, Mogul's Monarch, Expansion's Son, Sunflower King, Banner Boy and Meese's Mastiff. Write for description of pigs. W. C. Singer, Hiawatha, Kansas.

**DUROC JERSEYS**  
**CROW'S DUROC JERSEYS.**  
 Herd headed by Climax Wonder, he by Missouri Wonder, 100 head to select from. Prices reasonable. The electric car runs within three blocks of my farm. Come and see my herd at any time.  
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**DUROC HERD BOAR FOR SALE.**  
 Skadden's Wonder 74645, the best living son of Nebraska Wonder. An excellent breeder and individual. Out of litter of 13. Just in his prime. Will price to sell.  
**A. B. SKADDEN, Frankfort, Kansas**

Fall boars of best of breeding and quality at bargain prices for quick sale; also a few bred sows for June farrow of the best of breeding and bred to good boars. Write at once.  
**AGRA, KANSAS.**

**POLAND CHINAS**

**THE MORTONS QUALITY AND SIZE POLAND CHINAS.**  
 Herd headed by Equipment 51580 by Impudence. For quick sale 20 summer and fall gilts sired by son of Meddler 2nd, bred for August farrow. Also 3 fall boars. All representations guaranteed.  
**THE MORTONS, Tampa, Marion County, Kansas.**

**BRED GILTS**  
 Sired by First Choice, as by Grand Chief. Gilts bred to Little Bear, a grandson of On and On. Those offered for sale are the tops of a large bunch. The gilts and the price will please you. Write right now to Young & Kimmerring, Glasco, Kansas.

**SULLIVAN COUNTY HERD.**  
 Poland Chinas, 200 head in herd, best blood known to the breed. For sale 8 choice fall gilts, also 8 collic pups.  
**FULLER BROS., Humphreys, Missouri**

**20—BIG STRONG BOARS—20**  
 The tops of 50 head ready for service. Want to make room for spring pigs and am making low prices. Strictly big type.  
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**10 SUMMER YEARLING POLAND CHINA GILTS**  
 by On and On 2nd, bred for June and July farrow to Filbuster by Meddler 111111. \$30 for choice.  
**J. D. WILLFOUNG, Zeardale, Kansas**

**CORRECT TYPE POLAND CHINAS.**  
 Headed by Wise's Hadley by Big Hadley. Sows by What's Ex., Kansas Chief, Nemo L's Dude, etc., 75 choice pigs to pick from.  
**BERT G. WISE, Reserve, Kansas**

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 Herd bull Acomb Duke 7th 281036. Poland headed by Big Bone Long. Females represent leading strain. Young stock for sale.  
**FREELAND & WILLIAMS, Valley Falls, Kansas**

**BROWN COUNTY POLAND CHINAS.**  
 Oldest herd in Kansas headed by Major B. by Major Bob 50311. Sows by Big Hadley, Johnson's Chief, etc. 3 extra good fall boars for quick sale, reasonable prices.  
**ELI ZIMMERMAN, Hiawatha, Kansas**

**ALBRIGHT'S POLAND CHINAS.**  
 The utility type, headed by N. E.'s Perfection by S. P.'s Perfection sows in herd carry the blood of noted sires and have been selected carefully 40 choice pigs, both sexes, ready to ship.  
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**RIDGEVIEW STOCK FARM,** big type Poland Chinas, headed by Union Leader, Major Hadley and Hadley Prince. Sows by Expansion, Grand Look, Big Hadley, Bell Metal, etc. Spring pigs by herd boars, and Colossus. W. R. Webb, Bendena, Kan.

**EUFKA** Herd of pure bred Poland Chinas and Duroc Jerseys, 115 head to select from, with quality, size and good litters. Order early and get the best. Ready to ship after Aug. 1st, at farmers' prices. W. H. Sales, Simpson, Kansas.

**FOR SALE**  
 I STILL HAVE a few good fall boars for sale at very reasonable prices; will also offer my 2-year-old herd boar, O. K. Chief. He is a good individual of the 800-lb. type, heavy bone, a good even breeder.  
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**BLUE GRASS VALLEY STOCK FARM.**  
 Big boned Poland Chinas. Herd headed by Big Hadley, King Ex. 3d, Long John the 2d and Missouri Wonder. 4 of the best breeding boars of the breed; young stock for sale at all times; everything guaranteed as represented. W. A. Baker, Butler, Mo.

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 Ten Strike, grand champion at the Oklahoma state fair, 1908, heads the herd. Special prices on 20 strictly top quality boars, sired by Ten Strike and out of richly bred sows. These boars are of December and January farrow, good enough to head any herd. 50 choice gilts at very low prices. All pedigrees furnished when hogs are delivered.  
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**BIG TYPE POLAND CHINAS.**  
 Gold Standard by Chief Gold Dusted in service. Sows represent the most noted big type strains. Choice lot of spring pigs.  
**WALTER HILDWEIN, Fairview, Kan.**

**GEO. SMITH'S BIG POLANDS,** headed by Mammoth Hadley the best son of Big Hadley. Sows, daughters of King Do Do, Johnson's Chief, Gold Metal, First Quality, Chief Gold Dusted, 5 litters by Grand Model by Grand Chief. 100 choice pigs doing well.  
**Geo. W. Smith, Burchard, Nebraska**



FIELD NOTES

FIELD MEN.

O. W. Devine, Topeka, Kan.
Jesse R. Johnson, Clay Center, Kan.
R. G. Sollenbarger, Woodston, Kan.



PURE BRED STOCK SALES.

Horses.

Oct. 26—W. S. Corra, Whitehall, Ill.
Percherons, Belgians, and Shires.
Nov. 1, 2, 3, 4, 1910, Breeders' Sale Co., Bloomington, Ill.

Hereford Cattle.

Nov. 10—T. I. Woodall, Fall River, Kan.
Nov. 15, 16—O. Harris, Harris, Mo.

Holstein Cattle.

Feb. 7-8, 1911—Rock Brook Farm, Sta. B, Omaha, Neb. 150 head will be offered.

Jersey Cattle.

Sept. 1—Golden Sunrise Farm, Kansas City, Mo.

Shorthorn Cattle.

Nov. 15—J. E. Joiner, Clyde, Kan.
Feb. 22—Phillip Albrecht, Smith Center, Kan.

Berkshires.

Aug. 19, 1910—Chas. E. Sutton, Lawrence, Kan.

Durocs.

August 10—Chapin & Nordstrom, Green, Kan. sale at Clay Center, Kan.
Oct. 19—G. Van Patten, Sutton, Neb.
Oct. 25—Leon Carter, Asherville, Kan.

Poland Chinas.

Aug. 10—G. A. King, Cullison, Kan.
Aug. 11—E. H. Davidson, St. John, Kan.
Sept. 10—J. D. Spangler, Sharon, Kan.
Oct. 5—Homer Gruver, Spring Hill, Kan.

says: "Col. Burger sure made me a good sale. The day was so cold I believe the crowd would have froze up and gone home if I had not had Lufe to keep them bidding so they did not have time to get cold."

Linscott Buys Heifer.

At the Kinloch Farm Jersey sale recently held at Kirkeville, Mo., R. J. Linscott purchased the only daughter of Imp. Okland's Sultan.

Duroc Breeders to Meet.

Members of the Kansas Duroc Jersey Association are requested to meet at Clay Center, Kan., Tuesday evening, August 9.

Stryker Bros.' Show Herd.

We wish to say that the Stryker Bros. of Fredonia, Kan., will be out at the leading fairs this fall with their usual show herd of Poland Chinas.

10 Scotch Bulls for Sale.

In this issue Col. Ed. Green of Florence, Kan., is advertising 10 choice young bulls. These calves are sired by champion bulls and out of show cows.

Morton's Poland Chinas.

The Mortons of Tampa, Kan., breeders of fancy Poland Chinas, are offering for sale 20 choice fall gilts.

G. A. King Sells August 10.

On August 10, G. A. King of Cullison, Kan., will hold a public sale of Poland China bred sows.

Poland Chinas With Quality.

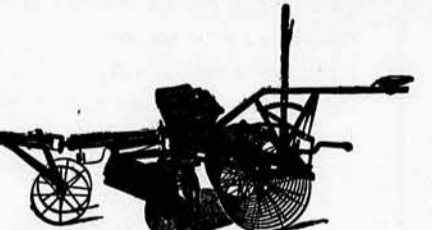
If you are looking for a herd boar with more quality it might pay you to write to T. M. Chambers at Oswego, Kan.

W. A. and C. Z. Baker Sell Nov. 4.

On Nov 4 next W. A. and Chas Z. Baker of Butler Mo. will hold their Poland China sale, and sell a lot of Big Hadley boars and gilts.

Half Century Success.

Tiger Drills and Seeders, made by J. S. Rowell Mfg. Co., Beaver Dam, Wis., have held their own in successful competition with others for over fifty years.



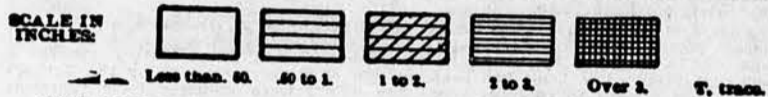
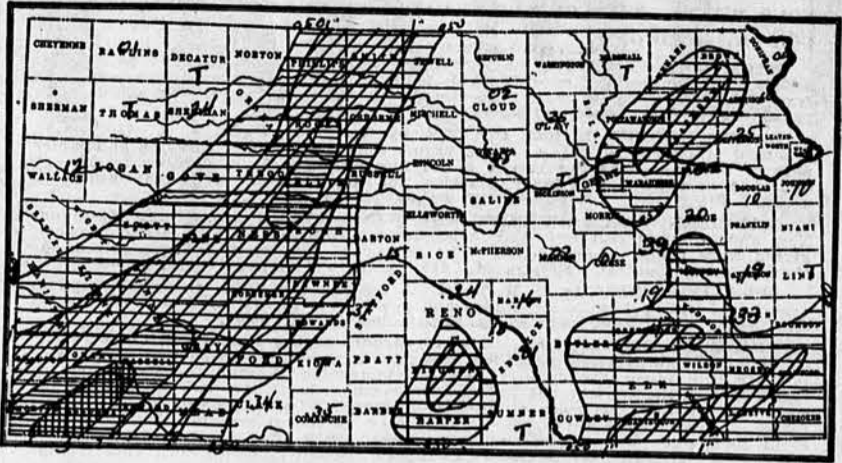
an entirely new principle, that makes clogging an impossibility; and an angle-iron pressure-bar across the machine which, they assure us, makes the frame the strongest and stiffest made.

White's Shorthorns.

Clarence H. White, Burlington, Kansas has recently bought an intensely bred Violet Shorthorn bull from W. H. Gentry of which he thinks very highly.

KANSAS CROP REPORT and Rain Fall for week ending July 2

Rain chart prepared by T. B. Jennings from reports collected by the Weather Bureau.



GENERAL CONDITIONS.

This week has been warm, but with temperature departures somewhat less than the preceding week. Showers have been local in character; they were light in the extreme northwestern counties but quite heavy from the southwestern corner counties northeastward to the central northern counties.

RESULTS.

Allen.—Corn needs rain. Anderson.—Wheat and oats harvest begun, but rain is needed. Bourbon.—The fine rains have helped corn materially. Chase.—Corn growing fairly well, more moisture would benefit it.

considerable damage in parts of the county. Woodson.—Corn has made good growth and has good color. Oats about ready to cut. Some hay being cut and baled. Middle Division. Barber.—Ground getting a little dry but corn is making good growth.

nically and all the cows and heifers he is offering for sale are in good condition. Those that are bred are in calf to a Collynie bull or to a good young son of Purdy Bros. show bull Lord Champion.

Glissmann's Holstein Sale.

The sale of Holsteins held at South Omaha June 28, 1910, by H. C. Glissmann was not the success it should have been considering the quality of the offerings.

- 1. Chas. E. Meythaler, Independence, Iowa, \$160
2. Chris. Kuehl, Omaha, Neb., 120
3. C. H. Kuehl, Omaha, Neb., 100
4. A. S. Cleary, North Loupe, Neb., 140

JUST A WORD TO THE BREEDERS AND FARMERS.

G. M. Hull, Garnett, Kan., will hold his sale Oct. 26, 1910, of one hundred head of the big type Poland Chinas, sired by five of the best boars in the United States.

BOARS.

Hadley Boy 48009 by Hull's Hadley 35344, Wm. Garrett 53037 by Mastodon Chief 53010, Big Hadley 40332 by Hadley Jr. 28383, Blain's Wonder 37717 by Johnson Chief 35774, King Plain 48506 by Blain's Worder 38717.

SOWS AND THEIR SIRES.

Sunshine (128543) by Bell Boy 46145, Midnight (111263) by Champion Chief 32207, Dud's Datsy (111263) by Tip Top Dudy 31681, Long Jane Lady (115077) by Chief Goldust 39244, Standard Lady (111262) by Standard Tecumseh 4114, Royal Beauty (125533) by Chief Goldust 39244, D's Made Right (129715) by Designer 39199, Big Beauty 2d (120156) by Long John 44640, Kansas Queen 4th (32395) by Neb. King 122227, Black Lady (127912) by O. K. Price 42071, Iola Garnett (127908) by Columbia Chief 2d 42528, Miss Garnett (127908) by O. K. Price 42071, Queen Likeness (131100) by Expansion John 43945, Early Alice (127910) by O. K. Price 42071, Kans. Queen 21 (323988) by Neb. King 122227.



## Books For The Farmer

Any of these books listed below will be forwarded by mail, postpaid to any part of the world on receipt of price quoted, and their safe delivery is guaranteed. IF YOU WANT SOME BOOKS, NOT IN THIS LIST, LET US KNOW YOUR WANTS. OUR FREE BOOK CATALOG SENT TO ANYONE, MERELY FOR THE ASKING.

**FARM CONVENIENCES.** A manual of what to do and how to do it. Describing all manner of home-made aids to farm work. Made up of the best ideas from the experience of many practical men. With over 200 engravings. 256 pages. 5x7 inches. Cloth, \$1.00.

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**AMERICAN GRAPE GROWING AND WINE MAKING,** by George Husmann. New and enlarged edition. With contributions from well-known grape growers, giving wide range of experience. The author of this book is a recognized authority on the subject. Illustrated. 269 pages. 5x7 inches. Cloth, \$1.50.

**SEKAYING CROPS,** by C. M. Weed. A treatise explaining the principles and practice of the application of liquids and powders to plants for destroying insects and fungi. Illustrated. 140 pages. 5x7 inches. Cloth, \$0.50.

**THE BOOK OF ALFALFA.** The appearance of the Hon. F. D. Coburn's little book on Alfalfa a few years ago has been a profit revelation to thousands of farmers throughout the country and the increasing demand for still more information on the subject has induced the author to prepare the present volume which is, by far, the most authoritative, complete and valuable work on this forage crop published anywhere. It is printed on fine paper and illustrated with many full-page photographs that were taken with the special view of their relation to the text. 336 pages. 6 1/2 x 9 inches. Bound in cloth, with gold stamping. Price, postpaid, \$2.00.

**FARM MACHINERY AND FARM MOTORS,** by J. B. Davidson and L. W. Chase. Modern farm machinery is indispensable in present-day farming operations, and a practical book like Farm Machinery and Farm Motors will fill a much-felt need. The book has been written from lectures used by the authors before their classes for several years and which were prepared from practical experience and a thorough review of the literature pertaining to the subject. Profusely illustrated. 5 1/2 x 8 inches. 520 pages. Cloth, prepaid, \$2.00.

**ANIMAL BREEDING,** By Thomas Shaw. This book is the most complete and comprehensive work ever published on the subject of which it treats. The leading laws which govern this most intricate question the author has boldly defined and authoritatively arranged. The chapters which he has written on the more involved features of the subject, as sex and the relative influence of parents, should go far toward setting at rest the wildly speculative views cherished with reference to these questions. The book is intended to meet the needs of all persons interested in the breeding and rearing of live stock. Illustrated. 405 pages. 5x7 inches. Cloth, \$1.50.

**CLEAN MILK,** by S. D. Belcher, M. D. In this book the author sets forth practical methods for the exclusion of bacteria from milk, and how to prevent contamination of milk from the stable to the consumer. Illustrated. 5x7 inches. 146 pages. Cloth, \$1.00.

**AMERICAN CATTLE DOCTOR,** by George H. Dadd, V. S. A complete work on all the diseases of cattle, sheep and swine, including every disease peculiar to America, and embracing all the latest information on the cattle plague and trichina; containing also a guide to symptoms, a table of weights and measures, and a list of valuable medicines. Illustrated. 367 pages. 6x9 inches. Cloth, \$2.00.

**CIDER MAKER'S HANDBOOK,** by J. M. Trowbridge. Contents: The properties of cider apple juice; apples, varieties and tests; apparatus for making cider; straining and filtering; fermentation; pasteurization; old method of cider making. It is a complete guide for the cider maker on a large or small scale. Illustrated. 119 pages. 5x7 inches. Cloth, \$1.00.

**MAKING POULTRY PAY,** by Edwin C. Powell. A manual of practical information on poultry keeping. It tells what to do, why to do it, and how to do it. Illustrated. 324 pages. 5x6 1/4 inches. Cloth, \$1.00.

**THE CEREALS IN AMERICA,** by Thomas F. Hunt, M. S., D. Agri., professor of agronomy, Cornell university. If you raise five acres of any kind of grain you cannot afford to be without this book. It treats of the cultivation and improvement of every grain crop raised in America in a thoroughly practical and accurate manner. First-hand knowledge has been the policy of the author in his work, and every crop treated is presented in the light of individual study of the plant. Illustrated. 450 pages. 5 1/2 x 8 inches. Cloth, \$1.75.

**THE AMERICAN APPLE ORCHARD,** by F. A. Waugh. This work is the result of actual experience and observance of a practical man. It is what everyone interested in apples has been looking for. For many years past there has been a strong and increasing demand for a practical book on apple culture. Of all fruit crops, the apple is not only the most popular, but it is also the most profitable; and in this book chief prominence has been given to modern commercial methods as practiced in large and up-to-date orchards. At the same time, the family orchard is not neglected, for special treatment of this subject has been given. Methods are discussed, not for their theoretical value, but from the standpoint of cash profits. Illustrated. 5x7 inches. 225 pages. Cloth, postpaid, \$1.00.

**MANUAL OF CORN JUDGING,** by A. D. Shamel. The advanced methods of corn judging and all the available information on this subject are incorporated in this work. It is especially helpful to farmers interested in improvement of corn, for corn schools, farmers' institutes, etc. Profusely illustrated with photographs of ears of the leading varieties of corn, desirable ears contrasted to undesirable, and kernels. In addition the score cards used in the corn states are given. 5x7 inches. \$0.50.

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**REGISTERED PERCHERONS**—The home of Vidoque (Imp.) 40103, also the brood mare Risette (Imp.) 51115. Inspection invited. Farm adjoins town. **E. N. WOODBURY, Cawker City, Kansas**

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**EUREKA HERD OF PURE BRED** Poland Chinas and Duroc Jerseys. Bred gilts and sows all sold, but have a few fall boars and gilts of both breeds. Prices right. **W. H. SALES, Simpson, Kansas.**

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