KANSAS FARMER

For the improvement of the Farm and Home

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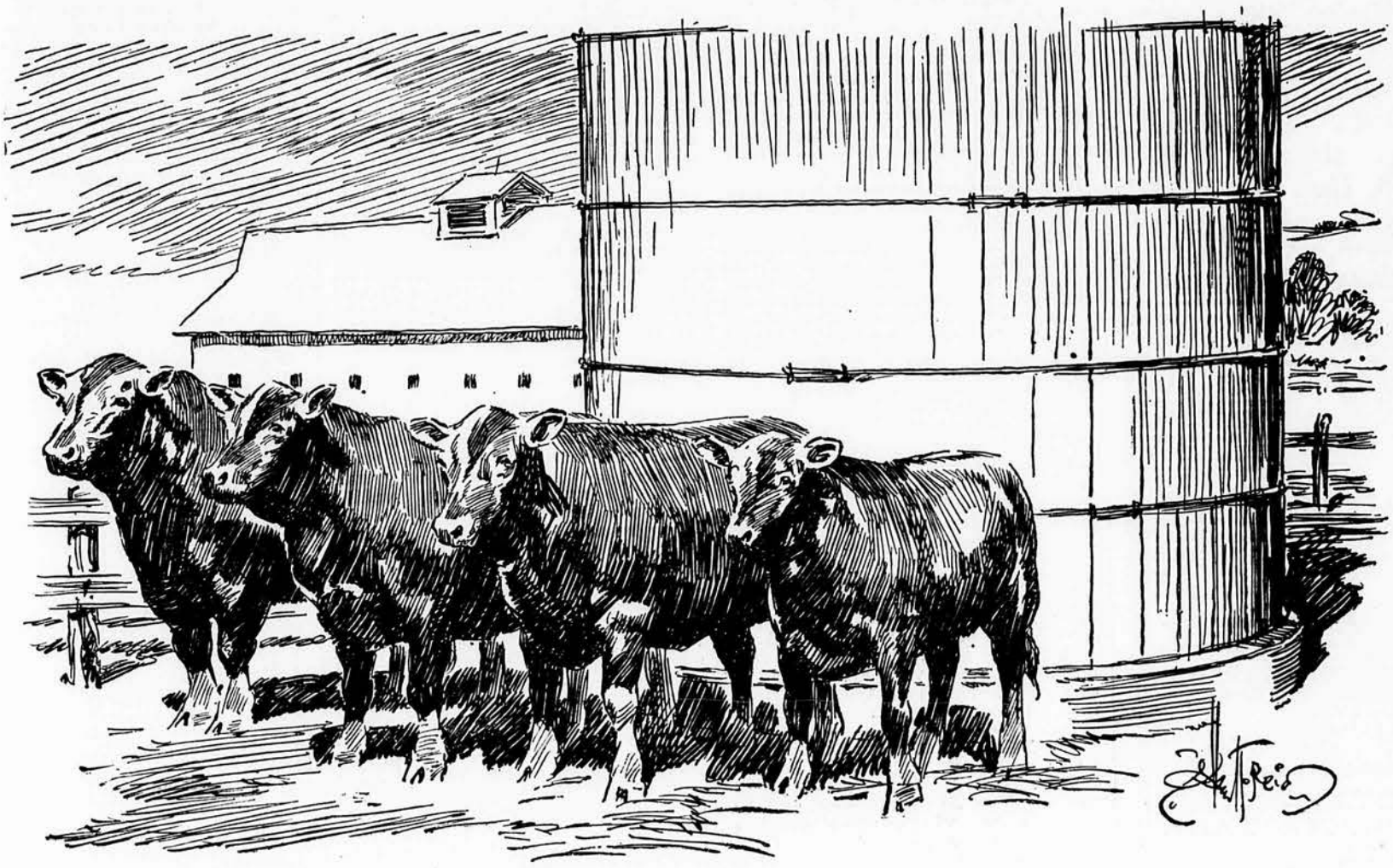
—*I. D. G.*



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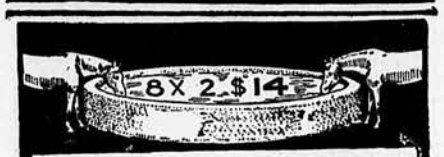

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MORE FARM INQUIRIES

Important Inquiries Answered by Kansas Farmer Editors

Silo Filling in Sumner County.

The following interesting letter has just been received from our subscriber, W. L. M., of Sumner County, Kansas:

"I have managed to fill three of my four silos with corn. I put in all the water the blower would carry without choking. I put some extra wet fodder on the top of each silo and expect to flood them on top at once. We started cutting this corn August 6 and finished August 22, putting it in the shock right behind the binders. We started filling the silos August 25 and finished August 30. I have a storage tank five feet in diameter, six feet high, on a wagon so the bottom is on a level with the place where I put the water into the cutter. I ran a 1½-inch pipe from the storage tank to the cutter and kept the storage tank full by hauling it with the thresher tanks, two all the time on a fourth of a mile haul and three when we had a three-fourths mile haul. This fodder never had a drop of rain on it after it was cut. It took 256 acres to fill two 36-foot silos and one 40-foot silo. What do you think of flooding the top of the silos where dry fodder has been put in? How soon can we feed silage after it is put in?"

It would certainly seem that enough water was run into this dry fodder to make it pack solidly in the silo. Fodder cured in the field in this way might require, however, from 300 to 400 gallons of water per ton to bring it to the moisture condition of first class silage. There are some objections to flooding the top of the silo after it has been filled, further than to apply water enough to be sure to have the top layer thoroughly wet. If large amounts of water are turned in it is almost sure to pass down the walls of the silo or follow various channels through the silage instead of spreading uniformly. The proper time to wet the silage is during the process of filling.

Silage can be fed immediately after filling, although where dry fodder has been run in and wet down it would be better to wait until sufficient fermentation has taken place to somewhat soften the woody fiber. After this has taken place the stock will eat the silage made from rather dry fodder better than they will when it is first cut.

Amount of Hay for Horse.

Our Pawnee County subscriber, C. C. C., inquires how much hay a 1,000-pound horse will eat during the winter. A 1,000-pound horse at work should not be expected to exceed ten pounds of hay daily. The digestive system of a horse is not adapted to handling large amounts of bulky feeds. A horse hard at work cannot eat enough hay to supply the necessary nutriments upon which to perform its work. A general rule to apply in the feeding of hay to horses is to allow from one to one and a half pounds of hay per 100 pounds of live weight, using the lesser amount when the horse is performing steadily very severe work. In wintering horses, or, in other words, supplying simply a maintenance ration, a horse may be kept in good condition with practically no grain, providing the hay is either alfalfa or clover.

Experimental work at the Wyoming Experiment Station demonstrated that 13.8 pounds daily of alfalfa hay and 2.75 pounds of oats straw would maintain the weight of a 1,000-pound idle horse. Idle horses sometimes eat more hay than is necessary. This is especially true where alfalfa hay is supplied. Excessive feeding of alfalfa hay is probably one of the most common mistakes made in the feeding of horses. This hay should invariably be handled as grains are handled, measuring out regular allowances to the horses instead of supplying hay in such quantities that they may eat more than necessary.

Balanced Ration for Hogs.

Our subscriber, C. C. C., of Pawnee County, finds himself with about 20 pigs weighing 50 pounds each, and he wants to know what it should cost him to make 100 pounds of pork on these pigs with corn priced at 80 cents a bushel, wheat 85 cents, white shorts $1.60 per hundred, bran $1.30 per hundred, and oil meal $2.50 per hundred.

In order to get the most economical gains on a bunch of pigs such as these it is necessary to have the ration properly balanced. Corn alone, in spite of the place it holds as a pork-producing ration, will not produce economical results. Rich as it is in fat producing materials, it is deficient in protein and mineral matter, and without having these materials supplied in proper amounts it will not give the most economical returns. In summarizing a series of experiments conducted at the Kansas Experiment Station it was found that in the lot where corn was used as the sole grain ration the average daily gain was slightly less than one pound per hog daily, the hogs being shoats weighing 125 to 130 pounds. From six to seven pounds of corn was required for every pound of pork produced. When supplemented with tankage or meat meal, gains of over a pound and a half daily were made with exactly the same kind of hogs. These figures are from averages in which seven lots of hogs were involved. With this properly balanced ration a pound of pork was produced for 4.6 pounds of grain. If the shoats belonging to our correspondent are well bred and in thrifty, healthy condition, the first hundred pounds of pork should be made at a cost of about four pounds of grain for each pound of increase, or 400 pounds of grain to make 100 pounds of pork. At the prices for feeds quoted it would still pay to use corn in preference to wheat as the main part of the ration. To supplement corn a feed containing a large amount of digestible protein is required. There has been nothing placed on the market within recent years that more economically and satisfactorily supplies this necessary protein than the tankage or meat meal which is sold by the various packing houses. This material consists of scraps and wastes of the packing houses, some care being used in selecting the materials which go into the feeding tankage. It is subjected to a high degree of heat during the process of manufacture and therefore is absolutely free from any possible disease germs. Different packing houses sell feeding tankage or meat meal under various names, practically all of them guaranteeing the material to contain in excess of 60 per cent crude protein. Many samples run much higher than this. This material sells at the packing house at about $2.25 per hundred pounds in thousand-pound lots. It probably would cost our correspondent in Pawnee County at least $3.00 per hundred pounds. The oil meal which he quoted at $2.50 per hundred contains only about half as much digestible protein as the tankage.

It is not necessary to make more than 5 to 10 per cent of the total ration tankage or meat meal in order to properly balance the corn. In the case of hogs as young as the ones mentioned, it would probably be advisable to use at least 10 pounds of tankage or meat meal to a hundred pounds of total feed mixture. Eighty pounds of corn, 10 pounds of shorts and 10 pounds of tankage should make a splendid combination, one keenly relished by the pigs and at the same time properly balanced to give the best returns in pork production. A hundred pounds of this combination at the prices quoted would cost $1.60. A hundred pounds of pork should be produced on good thrifty pigs of this age from the feeding of 400 pounds of such a ration; or, in other words, the hundred pounds of pork would cost in feed alone $6.40. With the present price of pork on the market and the probability that it will be higher in the near future, the margin of profit is sufficiently wide to justify our correspondent finishing his shoats for market. He will secure larger returns from the corn fed than if he sold it on the open market, and if he necessarily buys corn at 80 cents a bushel he will be able to market it in the pork produced at a considerable advance over its cost. If it is necessary to feed the corn on the ear or as shelled corn, the shorts and tankage may be mixed and fed in the form of slop, feeding one pound of the mixture of shorts and tankage to each four pounds of shelled corn fed. This proportion will maintain the proper balance between the corn and the supplement. In the production of the second hundred pounds of pork a little more feed will be required—perhaps 40 or 50 pounds, or 100 pounds of pork for 450 pounds of feed.

Twine in Bound Corn.

E. S. S., Happy, Texas, asks if the twine used in binding siloed corn will prove detrimental to the silage. No. The best methods for harvesting corn involve the cutting of the corn with a binder. When the bundle has been put through the cutter it is difficult to find the twine. There will be such a little of it in proportion to the silage that no injurious effects have ever been traceable to it.

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CO-OPERATIVE DEMONSTRATION.

One of the most interesting and in fact most valuable addresses we have heard in a long time, was that of Thomas Cooper, manager of the Better Farming Association of North Dakota, before the third annual conference of bankers' committees on agricultural development and education, in Kansas City on August 26. The North Dakota system of co-operative farm demonstration has been worked out with remarkable completeness and with great advantage to those farmers who are co-operators and these advantages cannot but help make themselves felt on adjoining farms. The conditions of the soil and climate of North Dakota and the heretofore entertained idea that general and diversified farming could not be followed profitably under existing conditions, is no doubt responsible for the success of the farm demonstration movement. Under the management of the Better Farming Association this year are 20,400 acres and 3,400 farmers are co-operators. In 1912 the corn grown under the demonstrators' recommendations averaged 12 bushels per acre more than the corn grown in adjoining fields. Wheat produced on demonstration farms yielded an average of 47 bushels per acre more than wheat grown on other farms. In 1912 the co-operating corn growers selected 10,000 bushels of seed corn, this being, of course, the best corn produced in the fields of the co-operators. This seed not only planted the fields of co-operating farmers but was sold to adjoining farmers—not co-operators—and in this respect the work and influence of the co-operators was felt among those who are not working with the association.

The Better Farming Association of North Dakota was first established by voluntary contributions. For several years it was maintained on such contributions. As farmers and county officials were able to observe the work of the association for the improvement of agriculture in general and in the increased production of farm crops, the legislature passed a law providing that counties desiring to maintain farm agents under the jurisdiction of the Better Farming Association could provide funds therefor through a tax levy. In the year 1913 the counties were paying 85 per cent of the money necessary to maintain the farm agent. The general fund of the state supplies the remaining 15 per cent. Seventeen counties in North Dakota have taken advantage of the law and are maintaining farm agents on the above basis. The state has a total of 25 agents. The eight agents not supported by tax levy are supported by the association from its funds provided by banks, merchants and those engaged in other lines of business.

* * *

In an address a few weeks ago, B. F. Harris of Champaign, Ill., the farmer banker, made this statement: "Anybody can run a farm or a bank when everything goes right, but it takes real folks to stand up when the test comes." There is much sound argument in this brief statement. Read the statement again and think it over as you go about the daily work. You will conclude that in the most favorable years—years of plenty of rainfall—that it is easy to produce a crop. We are so accustomed to favorable years in Kansas that we have come to the belief that every year will be favorable. So easy, comparatively, has been crop production in Kansas in years past that we have almost forgotten that a year of adverse circumstances can come upon us. When such years do come we gall under the way things go and are inclined to the belief that our business is poor, that we have not wisely selected it and that things generally are going rapidly to the dogs. The fact is that good methods of farming give as large a proportionate return in the favorable years as in the unfavorable years. The thing to do is to study and practice the best known methods of good farming and by following these out year after year the so-called good years will be better and the bad years will not be so bad. Adversity of one kind or other applies the acid test to every man's business. The farmer is not alone the man who suffers in the dry, hot year. All other business suffers principally because the farmer suffers. The farmer can improve his condition by farming each fall and each spring as though he knew the following growing season would be short on rainfall. It pays to hedge against the exceptional conditions.

* * *

NEW PLAN ADDS VALUE.

New plans for the publication of the work of the Federal Department of Agriculture are announced by the Secretary. Apparently the plan is to issue more popular practical matter direct to the public and restrict very largely the more technical material to special scientific channels. For this purpose a Journal of Research is being established which will be published about once a month. The more highly technical material which has heretofore been published rather indiscriminately in books and circulars will be given publicity through this new publication.

There certainly has been great waste in the past in sending out generally so much technical scientific material which could be of little or no use to those receiving it. The popular "Farmers Bulletin" series will be continued. This series has always contained concise practical information with regard to various farming problems, stock raising, fruit growing, etc. The secretary also reports that much information calling for immediate circulation will hereafter be issued in the form of statements to the press instead of being held back for weeks until a bulletin could be printed and issued. The monthly Crop Reporter is to be discontinued, the reasons given being that the information usually does not get into the hands of those desiring it until from ten to seventeen days after the most important parts had been circulated by telegraph and printed in the daily press throughout the country. In its place a weekly news letter is to be sent to all crop correspondents in typewritten form. It is to be hoped the new plan for handling the department publications will render the work of the department of greater use to the general public.

* * *

FARM MANURES.

There is probably no operation in connection with the farm in which greater and more unnecessary losses occur than in the handling of our manures. Chas. E. Thorne, Director of the Ohio Experiment Station, for years has devoted a great deal of his time and attention to this matter and in the hope of assisting the farmers to a practical knowledge of means by which many of these losses may be avoided, he has written a valuable book on this most important subject. In the opening of this book he gives a very brief discussion of the origin and nature of the soil. The composition of farm crops is taken up and the value and effect of different fertilizing elements on their growth. This discussion is illustrated with experiments in the use of various fertilizing material.

Following this he takes up the composition of manures, showing the amount produced by different animals and the relative proportion of solid and liquid excrement. The composition of these various manures is discussed as measured by the crops produced by the use of given quantities of manures for long periods of years. Comparisons are made of the increase produced by chemical fertilizers under similar conditions. He discusses all the various wastes of manure through losses in the stable, barn yards and fields. He presents methods by which these losses may be prevented and measures for rendering manure more effective by reinforcing it with such elements as may be deficient.

The employment of catch crops and green manures is discussed and the final chapter is given to a discussion of different methods of farm management, special stress being given to such management as will use to the greatest extent possible barn yard manures and provide for the maintenance and increase of soil fertility. This book will be of great value to every live stock farmer. It is published by the Orange Judd Company of New York.

* * *

This has been a hard year on orchards. Thousands of fruit trees throughout Kansas have died through sheer neglect. This statement is more especially true of the western half of Kansas. Fruit trees as well as other trees in that section are worth saving. As a rule, however, the western orchard or grove receives little attention in the way of cultivation and at least seven of every ten orchards are badly grown to grass and weeds. These take from the ground the moisture the trees need, with the result that through insufficient moisture the trees cannot survive. An occasional farmer who has a natural liking for fruit has kept his orchard in such condition as to maintain the trees healthy and thrifty throughout the summer. This is evidence of the possibilities when proper care is given to the cultivation of the orchard. We are not enthusiastic over the proposition of converting the western half of Kansas into a commercial fruit growing section, but we do believe it worth while for each farmer to have a sufficient number of trees of the various kinds of fruit to enable him to supply his family needs. Hundreds of farmers here and there throughout this section have accomplished this—and in fact much more. New orchards will be set next year, and this is an admonition that the farmer is fooling away his time and money unless he determines beforehand to keep the orchard clean and cultivated. The Western Kansas farmer is not alone guilty in this respect. Many Eastern Kansas trees have died when there was no excuse for their loss. The suggestion contained herein applies equally well to Eastern Kansas farmers.

DO you need feed—if so how much and what kind? Do you have feed to sell—corn, kafir, milo, corn or kafir fodder, alfalfa hay, prairie hay or silage?

In either case notify KANSAS FARMER, giving all particulars. We will endeavor to place those needing feed in touch with those who have feed to sell, and vice versa.

This is a little helpful service KANSAS FARMER desires to perform for its readers and friends. The service costs nothing. The matter will be handled by correspondence and not through the columns of KANSAS FARMER

LEARN THE TROUBLE.

"If the business you are in does not pay, you should either get out of it or find where the trouble lies," is written in a magazine published for business men. There is a lot of good sense in that admonition. There might be such a thing as your being engaged in a business which could not be made to pay, but if in looking around you find men in the same business as you and who are making money, then look into your affairs and see to what particular it is that your failure is due. If others are doing well in the same business it is plain that it is not the fault of the business. If it is your own fault, then it is time to get pointers from those who are successful in the same line of business. Whether you obtain those pointers from observation or personal contact, or through printed literature, matters not—the important point is to learn why and how the other fellow has succeeded and follow in his footsteps.

In the case of farming, every community has its farmer or farmers whose measure of success is far beyond that of the average. This is a difference in men and then their ability and personal equation is always a factor in success. But, the farmer of average ability, following the plans of and being led by the man of exceptional ability, can make a good showing and there is no law or custom which prevents a neighbor from looking over the fence and noting how the other fellow does it. The farm paper, when written from a full understanding of conditions in its territory, reflects the best of those who have made good at farming. So the precepts of good farming have been pretty generally proven in the farm practice of the territory for which they are recommended.

If your farming is not paying but the farming of others in your neighborhood is profitable, do not blame farming as a business, but look for the strong point of the other fellow's work and follow his lead.

* * *

It is believed that practically the whole corn acreage in Kansas will this year be sown to wheat and that a comparatively small acreage of this year's corn ground will be planted to corn next spring. This situation brings about a condition whereby the wheat and oats stubble of this year will be planted to corn next spring and this leads to the suggestion that in case conditions are such as will permit plowing, that as much of this stubble should be plowed this fall as is possible. It will not be worth while to attempt to plow this stubble unless it has sufficient moisture to cause it to plow easily. It would be a good idea to disk the stubble before plowing. This will have an effect on absorption of and conservation of moisture and the thorough settling of the plowing before planting time. Ground plowed late this fall or early winter will be in the best condition for both listing and surface planting next spring. Fall plowing will have the effect of lessening the amount of work needed next spring and this will help. The greater advantage, however, will come through the fact that the ground will be in the best possible shape to take up the most possible moisture of the fall and winter and as a result the ground will be in the most favorable condition for next year's crops.

* * *

It may be interesting to KANSAS FARMER readers to know that the dry and hot weather of the past couple of months has most seriously affected only Kansas and Oklahoma and parts of Missouri and Nebraska. In addition to the effect generally throughout the above named states, the drouth has extended into small portions of Southern Illinois and Indiana, part of Kentucky, Tennessee, Arkansas and Iowa. Outside of the sections mentioned, the feed and crop conditions are normal to better than normal.

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

Subscriber D. B. M., Sedgwick County, writes: "I have 300 bushels of shelled corn in a tight bin which is badly affected by weevil. Is there any method by which I can destroy this weevil and save the corn?"

There are a great number of insects which are extremely injurious to stored corn. The most common and most injurious are Angoumois grain moth, rice weevil, granary weevil, Mediterranean flour moth, meal snout moth, Indian meal moth, flour beetles, Cadell and saw-tooth grain beetle. As will be noted from the names, some of these are moths and some are beetles. The first named is most common in stored shelled corn and is the most injurious.

The best treatment for this and other insects infesting grain consists in the fumigation with carbon bisulphide. This substance should be used at the rate of one pound to 100 bushels of grain. The bin should be made as tight as possible before treatment and should be kept in such condition for a period of from 24 to 48 hours. The cost of treatment is 10 to 15 cents per hundred bushels. The gases from bisulphide of carbon are heavy and so penetrate the grain to all corners of the bin. The gas is highly inflammable and care should be exercised accordingly. A lighted match in the vicinity of the fumes will cause trouble.

The carbon bisulphide may be poured into shallow pans and set on the grain. It evaporates rapidly and the fumes soon penetrate the entire bin or building. This is the best known treatment possible to recommend to this subscriber.

New grain should not be stored in old bins and which are known to be infested, until they have received a thorough disinfectant treatment as above described.

Seeding Alfalfa This Fall.

Our subscriber, T. C. K., Geary County, writes that he has ground ready for seeding alfalfa but that the man who owns the farm and who is to furnish the seed, is not favorable to fall seeding. The tenant wants to know what he should do.

Both spring and fall seeding is practical in Kansas with equal degrees of success. In some localities farmers consider fall seeding most successful. In other localities only spring seeding is practiced in the belief that it is best. In central Kansas, where the editor farmed for years, we considered only spring seeding. Later experience and extended observation has caused a change in our views and we now hold the belief that the controlling factor in obtaining a good stand of alfalfa is soil moisture—moisture first to get the seed bed in the desired condition, and second, the moisture necessary to germinate the seed. We do not know what method our correspondent has used in preparing his seed bed, but regardless of the methods employed we do not see how he has been able to get ground into condition during this summer and fall, unless the preparation was begun by deep plowing last fall or early last spring and has been frequently cultivated since. We regard that prevailing weather conditions have been such as to leave the soil too dry for probable successful seeding, and proceeding on this theory we think it very unwise to at this date figure on fall seeding. If the ground has been well prepared and soaking rains were to be had before seeding is done, there would be a chance for this fall's seeding. It is our belief that alfalfa should not be seeded until the ground is well supplied with moisture—insuring germination, and moisture enough to support the plant until its roots can extend themselves to a constant moisture supply. When once well set, alfalfa will survive dry weather, but the young plant needs moisture to establish itself.

In the sections of comparatively small rainfall, fields to be seeded to alfalfa are frequently under cultivation for a year or eighteen months prior to seeding. Crops are not grown. The moisture is conserved by cultivation. Thus the stored up moisture for a long period is available. This practice is regarded as essential.

Getting back to the contention of our inquirer, we would say: Do not attempt seeding until the ground is well soaked. If the field is now prepared for seeding, that it may not lie useless through this fall and winter seed now to rye, oats or wheat for fall or winter pasture, plow shallow next spring, destroying the growing crop, and spring seed to alfalfa if the ground in the meantime has been thoroughly soaked. There is no use in suffering the disappointment attendant upon seeding alfalfa under the present generally existing soil conditions.

Wheat on Corn Ground—and Chinch Bugs.

Several correspondents have asked KANSAS FARMER the past few days whether or not it will be advisable to sow wheat on corn ground the corn of which was this season seriously affected by chinch bugs, and although the corn has been removed there are still millions of bugs in the fields.

We would not hesitate to seed wheat this fall on such ground. The fact is that about the middle of September in Kansas the chinch bugs move from corn and other fields into winter quarters. They move to the bunch grass along the roadside, into the weeds and rubbish in the hedge rows and fences surrounding the farm and fields. We think it wise not to seed wheat in badly infested fields until the chinch bug has made this migration. We are inclined to the belief that on account of the weather conditions resulting in the early maturity of corn and other crops on which he feeds, that the chinch bugs will move earlier this year than usual. So that we think at seeding time chinch bug infested corn fields will be about as free from bugs as in any normal year.

The chinch bug we have with us and he probably exists, generally speaking, in greater numbers this fall than last. This is the excuse for our admonition to the effect that we in Kansas must this fall inaugurate an effective burning campaign against the chinch bug. Millions of his kind must be destroyed before another crop growing season. We know better now than ever before where the bug hibernates and where to find him and how to destroy him. He will eat us up next year if the season is inclined to be dry, and we have not done as well as we know unless we make a fight on him this fall.

BROOD SOWS AND PIGS GATHER UP MUCH FEED ABOUT THE FARM WHICH WOULD OTHERWISE BE WASTED.

Sweet Clover Seeding.

The widespread and growing interest in sweet clover has resulted in a determination on the part of Kansas farmers to seed sweet clover. We believe it is certain that in the next few years a considerable acreage of sweet clover will be seeded in Kansas and if the clover makes good, as we believe it will, the plant will become a considerable factor in the agriculture of the state.

The desire to seed a patch of sweet clover has caused correspondents to inquire as to whether spring or fall seeding is preferable, indicating that a good many KANSAS FARMER readers are disposed to seed sweet clover this fall. The conditions under which sweet clover grows, being recognized as considerably more adverse, or at least not so favorable as is required by alfalfa, has, we fear, led many people to believe that sweet clover fields can be successfully set under almost any condition of soil. This is a mistake. For surest success the seed bed for sweet clover should be carefully prepared. However, such seed bed should not be loose. It should be compacted and firm, and there are plenty of such seed beds waiting for sweet clover seeding in Kansas this fall. For instance, clean and well cultivated corn ground will make an ideal seed bed, but so long as the ground is devoid of moisture it will not be advisable to seed sweet clover any more than it would be to seed alfalfa, the seeding of which latter plant was pretty thoroughly considered in our issue of last week.

In KANSAS FARMER issue of August 30, C. C. Cunningham, in charge of cooperative farm experiment work in Kansas, said that under natural conditions sweet clover remains in the ground during the winter and germinates during the spring, although occasionally a few seedling plants may be found in the fall. It is his judgment that sweet clover may be seeded any time from January to the last of May with equal chances for success. We quote Mr. Cunningham as follows: "In the eastern one-fourth of the state it may often be successfully seeded with a nurse crop of oats or barley provided the seed bed is not too loose and open and a rather thin stand of grain is grown. In favorable seasons good stands of sweet clover may be obtained by seeding with fall wheat, the seed being sown in the spring in the same manner as red clover is usually seeded. As a rule about 20 to 25 pounds of cleaned or hulled seed per acre is required. When the unhulled seed is used the amount of seed per acre should be increased five pounds. This comparatively large amount of seed is necessary because of the fact that often only about one-half of it germinates the first season. The remainder of the seed has such hard seed coats that it does not germinate the first season and therefore is practically useless."

It is suggested that all sweet clover growers make a careful perusal of the article from which the above quotation is made and which article was printed in KANSAS FARMER of August 30. In that article Mr. Cunningham boils down all the essential features of sweet clover farming and which in the last few months has been much written about and discussed.

Good Seed and Feed Crop.

Subscriber G. K. S., Phillips County, writes: "Conditions in this section of the state are not as bad as some of the eastern papers would lead one to believe. While it must be admitted that the corn crop will be cut short, in fact very short, it must also be remembered that we had a very good wheat crop through this section, and threshers are now finding a good yield of alfalfa. At the Marion Abernathy farm a few miles southwest of Gaylord, 20 acres were threshed that averaged ten bushels and one peck to the acre straight through. Alfalfa all along the Solomon Valley is running from four to seven bushels to the acre and, considering the price of from $8 to $10 a bushel, that's not so bad. Farmers throughout this section are holding onto their live stock and will put them through the winter in good shape."

Cast Iron or Steel Plow.

Does a cast iron or steel plow scour best? This question is answered by R. M. Dolve, professor of agricultural engineering, North Dakota Agricultural College. Chilled cast iron such as is used in plows is as hard as plow steel and is capable of as high a polish, so that, in general, it may be said to have as good scouring qualities as steel. Steel, however, has the advantage that its hardness and temper may be varied to suit local soil conditions while chilled iron must remain about the same. As an illustration may be cited that after many years of experimenting the steel plow manufacturers were able to put out a plow having a steel of such quality and temper that it would scour in the black lands of Texas.

Carrying Over Stock Hogs.

A. B. G. of Marshall County, who is one of the pure-bred hog breeders of the country, writes us that he has produced a very small amount of corn this year and consequently has little to feed his hogs. He has a nice bunch of pigs, but states that he does not know what to do with them. As a breeder of pure-bred hogs he has spent considerable time and effort in developing the herd to a high standard of excellence. We would advise that a reasonable number of the sows of the herd be kept over, if possible. It means a great sacrifice on the part of the breeder to lose all the results of his work and effort in building up his herd. There will be a big demand for bred sows before spring. The market for pork is high, and in spite of the fact that feed is high in price, the hog breeder should be able to market a considerable portion of his surplus at a profit. He, of course, will carefully cull his herd, saving only the very best. In feeding the stock hogs and those being finished for market, careful thought must be given to the proper balancing of the rations and to the relative costs of the different feeds. Wherever wheat is as cheap as corn, this grain can be used profitably in the feeding of hogs. Some rye or wheat should be sown for fall pasture if sufficient moisture comes to produce any growth this fall. Some good rye or wheat pasture will effect a great saving of grain with the stock hogs. Some feed rich in digestible protein must be used in connection with the corn or wheat in order to make these feeds go as far as possible. Meat meal or tankage is the cheapest feed on the market at the present time for that purpose. Wherever alfalfa or clover hay is available this should be kept before the brood sows and other stock hogs constantly during the winter season. It is remarkable how much alfalfa or clover hay mature hogs will consume if they are given opportunity.

Water Freezing in Tank.

Inquiry comes to us from Colorado as to the freezing of water in an elevated water storage tank such as was described in the article by Thomas D. Hubbard in our August 2 issue. A water system always gives some trouble during the very cold weather. We asked Mr. Hubbard to give his experience along this line and he states in his reply that we must expect water to freeze in any kind of an elevated storage water tank in very cold weather. His tank froze about eight inches thick during the coldest weather of last winter. No damage was done to the concrete tank, however, and as his service pipes were all laid beneath the danger of freezing and carefully protected where they came above ground, he had little trouble in using the system during the very cold weather. For a short period of time he discontinued the use of the tank and used the water direct from the engine in his system. He goes on to say that "if one waits until he finds a material that will not permit water to freeze in cold weather, he is never apt to construct a water storage tank." He states that he "would not dispense with his elevated water tank and be deprived of its great usefulness in distributing clean, pure water for live stock, for the kitchen and bath room, for many times what it cost."

Western Canada is furnishing a new outlet for surplus horses. Dr. H. B. Adair, federal inspector at Kansas City, reports that 99 head of horses were inspected and passed during the month of August for shipment to Canada. A number of suckling colts went through with these horses, but were not included in the count. Nearly all of these horses came from Kansas.

The fellow who doesn't believe in "book farmin," is still running around loose. In the meantime, the progressive farmer, merchant, manufacturer, doctor and lawyer are, as usual, watching out for anybody who can show them a new and better way of doing things.

STOCK AND FARM PRODUCTS

ONE SIDE OF AGRCIULTURAL HALL SHOWING JEFFERSON AND SHAWNEE COUNTY FARM CROPS DISPLAY.—OTHERS AS GOOD AND WILL PRINT PICTURES LATER.

Big Showing at State Fair, Topeka, This Week—Every Department Filled

THE big State Fair at Topeka started off in fine shape Monday morning with weather specially manufactured for the occasion. For the first time in 40 days a thin veil of clouds covered the rising sun on the opening day. For some time previous to the opening hour of the fair the children of Topeka had begun to line up at the gate, eager to gain admission to the grounds and put in the full day studying the various interesting exhibits. Old soldiers and their wives were also admitted free on this first day of the fair, and many of the bronze buttons were in evidence at the gate at the opening hour.

* * *

Live stock is the foundation of the agricultural prosperity of this state, and it is to be expected that exhibits of live stock should form the strongest feature of the show. The splendid and permanent horse barn which has been provided for the housing of the horse exhibit is the first building which the visitor passes into in inspecting the live stock features of the fair. This feature of the exhibit seems a little disappointing at first, since the numbers are not as great as in some years past. Some of the leading exhibitors who have been showing at the Iowa and Nebraska fairs were undoubtedly attracted to the northern circuit on account of the much more favorable crop conditions which have prevailed over that region. A careful inspection of the horse exhibit, however, develops some rather interesting points showing the interest the farmer and small breeder is taking in improving our types of farm horses. In years past the exhibits of draft horses have been made almost entirely by large dealers and importers. More and more the farmer and small breeder is equipping himself with a few high-class draft mares, and a number of these have exhibits in the horse barn. While these exhibits are small in number, they show good quality and are a most encouraging feature of the draft horse business. These smaller breeders will probably not entirely supplant the work of the importer in improving our draft horse stock, but will undoubtedly do much in supplementing his work. Among these smaller breeders having entries will be noted Lew Jones of Alma, Kan., who has two massive Belgian stallions and one Percheron on exhibition. G. H. Weeks of Belvue, Kan., has four Percheron stallions on exhibition in charge of the manager of this farm, Robert Potts. One of these stallions weighs 2,250 pounds. George Groenmiller & Son of Pomona, Kan., have one extra good yearling Percheron stallion on exhibition, weighing 1,700 pounds. Another farmer breeder, W. H. Branson of Overbrook, Kan., has brought in four good Percheron mares and one mule. C. D. McPherson, who operates a successful stock farm near Topeka, brought in four good Percheron mares and likewise a fine string of Shetland ponies. The pony exhibits are naturally attracting much attention from the children. The alleys back of these ponies are almost constantly crowded with children admiring and petting the Shelties. The most interesting pony exhibit is that made by T. F. Kreipe of Topeka. This exhibit is housed in a tent constructed for the purpose, and driving and riding exhibitions are being given by the exhibitor. P. G. McCully & Sons of Princeton, Mo., are showing five high-class Percheron mares. The larger breeders and importers showing are Lee Brothers of Harveyville; Kirk & Penick, South St. Joseph, Mo., and L. L. Wiley of Emporia, Kan. Wiley Brothers have 13 head of Percherons on exhibition, being selected from an importation they have just recently made from France. The St. Joseph firm shows seven carefully selected Percheron stallions from their importing barns. Lee Brothers of Harveyville have the largest collection of Percherons of any exhibitor showing. This firm is recognized as one of the leading Percheron breeding firms of Kansas. Their herd consists of 12 mares and 12 stallions. In some of the classes they have three or four strong entries. They are also showing two outstanding yearling mules weighing 1,100 pounds each. Dr. C. W. McCampbell of the Agricultural College, who is superintendent of the horse department, is very well pleased with the showing being made by the horsemen of the state.

The cattle show is distinctly high class. Dr. O. O. Wolfe of Ottawa, Kan., superintendent of this department, has had his hands full in placing the large number of entries made. Only one or two herds turned back from the Nebraska fair. The big cattle barn is full and overflowing. The numerous nurse cows which are carried along with the show herds are being housed in tents. The Shorthorn breed has the largest number of entries, and the high class of the various herds on exhibition will give the judge a hard task in picking the winners. Among the Kansas exhibitors are found H. H. Holmes of Great Bend; Harry Forbes of Topeka; C. S. Nevius, Chiles; R. R. Shulz of Holton, and C. H. White of Burlington. The White herd made the Lincoln fair and in spite of the keen competition made a very creditable showing at that fair. E. M. Hall of Carthage, Mo., is on hand with a carefully fitted herd. Iowa is represented by the herd of William Herkelman of Elwood. Two well known herds from Nebraska are on exhibition, those of Rees & Son of Pilger, and Owen Kane of Wisner.

Three strong herds of Polled Durhams are on exhibition. Achenbach Brothers of Washington, and J. C. VanNice of Richland, represent the Kansas breeders, Leemon Brothers of Hoopeston, Ill., being the only exhibitors from outside the state. These three herds are all high-class herds and will furnish keen competition when it comes to the picking of the winners. On the whole, cattle men seem in especially good spirits. It looks as though the breeder of pure-bred cattle was about to have his "inning." The great scarcity of stock cattle is at last beginning to impress itself upon the public, and the breeders of high-class animals are finding their stock more and more in demand. The high prices being paid for stock cattle, in spite of record-breaking marketing, is an indication of the scarcity of cattle over the country. Mr. Van Nice was asked why he did not show some young bulls in his herd. His reply was that he could not keep them. He stated that he tried to price one or two so high that he could hold them until after the fair, but buyers accepted his prices and took the bulls. Owen Kane, who has probably one of the classiest herds of young Shorthorn cattle on exhibition, sold three of his best bulls at Lincoln, one of them being Dale Clarion, the junior champion of the Nebraska show. Two of these bulls brought him $1,000 each. This herd will undoubtedly carry off its share of the ribbons in the Topeka show.

Only five Hereford herds are on exhibition, but all are high-class "toppy" herds. Robert Hazlett of El Dorado has a remarkably uniform bunch on exhibition. Jones Brothers of Council Grove and Klaus Brothers of Bendena also have good bunches of Herefords. Only two out of state exhibitors are present —J. M. Curtice of Independence, Mo., and O. S. Gibbons of Atlantic, Iowa.

The Angus exhibits are small in number but of high quality. A. C. Binney of Alta, Iowa, is on hand with the same herd he has shown at the Iowa and Nebraska state fairs. His herd bull, Kloman, won the grand championship last year at the Iowa State Fair, but was forced down to third place in the class this year at the same show, being defeated by McHenry with his splendid bull, Erwin C. Sutton & Porteous, the well-known Angus breeders of Lawrence, Kan., have a small but high-class well-fitted Angus herd on exhibition. The Agricultural College is exhibiting two Angus bulls in the breeding classes this year, one being the herd bull at the college. This bull is in splendid condition and is a worthy competitor for first place in competition with the Binney bull. The two-year-old bull shown by the college is owned by Parker Parish of Hudson, Kan. This bull is sired by Erwin C., the grand champion of the Iowa State Fair this year, and is a splendid individual.

Only two herds of Galloways are on exhibition, A. O. Huff of Arcadia, Neb., having a small herd, the other being that of the Capital View Ranch at Silver Lake, Kan. This herd has already made a strong list of winnings at the Nebraska State Fair and will undoubtedly secure many of the winnings at the Topeka fair.

Only one exhibitor is showing Red Polls this year—Peter Blocher & Sons of Topeka.

The showing of dairy cattle is probably better than it has ever been at this fair. Three strong herds of Holsteins are present, namely the "Butter Bred" Holsteins of J. P. Mast, of Scranton; the herd of G. L. Rossiter of Topeka, and that of Charles Holston, also of Topeka.

The Jersey breeders are represented by H. F. Erdley, Holton, Kan., who has already made a strong showing at the Nebraska fair; Fred Laptad of Lawrence, and W. I. Miller, Doran & Zinn, and F. J. Sherman, all of Topeka. J. B. Smith, the well-known Jersey breeder of Platte City, Mo., has a splendid herd on exhibition also.

Wilcox & Stubbs of Des Moines, Iowa, furnish the greater part of the Guernsey show, this well-known firm having 20 individuals on exhibition.

R. C. Obrecht, proprietor of Fairlea Farm near Topeka, has his splendid Guernsey bull on exhibition.

The Brown Swiss cattle are represented by two herds—Dahlem & Schmidt of El Dorado and Charles B. Nixon of Auburn, Neb. These dairy cattle are not very well known, and many visitors are led to inquire as to what breed they belong.

* * *

This is an off year in the hog show for the big Kansas Fair. In spite of this fact, however, the showing of hogs is fully as good as it was last year. The herds on exhibition are all high-class herds and are shown by breeders of reputation in their respective breeds.

J. C. Meese of Ord, Neb., who has just been showing at the Lincoln fair, is on hand with a strong herd of big-type Polands. John Gildow & Sons of Jamesport, Mo., also have a strong herd of big-type Polands. W. Z. Baker of Rich Hill and W. A. Baker of Butler, Mo., are showing. Among the Kansas breeders are found L. E. Klein of Zeandale and Hill & King of Dover.

An especially strong bunch of O. I. C.s are on exhibition. Two well-known herds from Missouri are on hand, namely, those of H. W. Waltmire, Raymore, and S. D. & B. H. Frost of Kingston, Mo. Among Kansas breeders are found R. W. Gage of Garnett and T. C. Gookin of Russell.

The Duroc Jerseys are represented by several of the best known breeders of this popular breed. R. Widle & Son of Genoa, Nebr., are on hand with their herd, and Clausen Brothers of Oklahoma. Kansas breeders are represented by Searle & Cottle and A. H. Bennett of Topeka; and Thompson Brothers of Garrison. This latter firm has just made a showing at the Lincoln fair.

Four "toppy" Berkshire herds are on exhibition, namely, those of George W. Berry & Sons of Topeka; H. E. Conroy of Nortonville; Ralph Robertson of Ozawkie; and C. G. Nash of Eskridge.

J. G. Arbuthnot, who is superintendent of the hog exhibit, states it as his belief that if we have a corn crop next year good breeding hogs will probably reach a higher price than they ever reached before. In his judgment breeding hogs cannot fall off much in price even during the present year. Hog breeders who have spent a great deal of time and effort in developing high class herds are certainly justified in staying in the ring and using every effort possible to maintain intact their breeding herds.

The sheep on exhibition, while not numerous, include high class individuals. J. C. Lacev & Son of Meriden, Kan., are showing an especially good bunch of Shropshires. They have for competitors, Waltmire & Son of Raymore, Mo., and George Allen & Son of Lexington, Nebr. This firm is exhibiting several different breeds and made very strong winnings at the Nebraska fair last week.

The poultry building has a most complete exhibit of poultry of all kinds. This department of the Topeka Fair has always been a strong one.

* * *

The exhibit in the agricultural hall is surprisingly good considering the character of the past season. Four or five counties are competing for the county exhibit prizes and the visitor would hardly realize in looking over these exhibits that this has been a drouth year in Kansas. The Agricultural College has a splendid educational exhibit in this building which is well worthy of many hours of careful study.

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THE SAGLESS ELEVATOR

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John Deere—The Sagless Elevator, is the first portable elevator to have turnbuckles on the truss rods so that you can keep the elevator from sagging.

You know how the power required increases when an elevator once starts to sag. Likewise, you know what a strain sagging throws on the whole elevator, especially the bearings in the head and boot sections.

The John Deere, for the sagless feature alone—even if it didn't have all those other things of advantage—is worth your careful consideration.

The Sagless Feature

Four turnbuckles on the truss rods, together with extra strong section connections make the John Deere a really sagless elevator. Sections are triple-lapped, connected with fourteen bolts, banded with a heavy iron band and reinforced at the upper edge on the inside. That is one big advantage in having a John Deere—The Sagless Elevator.

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John Deere—The Sagless Elevator, separates and takes the shelled corn out when elevating ear corn. A screen, in the second section (that can be closed up when elevating shelled corn or small grain) does the work. Shelled corn that gets into the crib with ear corn fills up the air spaces and very often causes the corn to heat or mold.

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ALL STEEL—There is nothing about a John Deere—The Sagless Elevator to rot, dry out, or warp. It is made entirely of steel.

ROLLER BEARINGS on the head and boot shaft reduce the power required. They eliminate friction, thereby lengthening the life of the bearings.

HORSE OR ENGINE POWER. John Deere—The Sagless Elevator is furnished either with or without horse or engine power. A variable speed jack or belt attachment is furnished when desired to operate with engine.

MANY OTHER desirable features on John Deere Elevators are fully illustrated and discussed in the John Deere—The Sagless Elevator book. (This book also illustrates and describes the John Deere Cypress Wood Elevator and the John Deere Tubular Elevator for small grain—the only one of its kind.)

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FREE BOOK
A book with which any farmer can save the price of a portable elevator outfit by the way he builds his corn cribs. Read about it below.

"How to Build Corn Cribs" with Blue Print Plans

Besides containing complete descriptions of the John Deere—The Sagless Elevators, this book has ten blue print plans covering the construction of corn cribs and granaries, showing the style of elevator used with each crib. It also contains cost estimates and furnishes a source of valuable information whereby anyone can arrive at the comparative cost of the various styles of cribs and granaries. You can get it free if you will ask for book No. A 13

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Sherwin-Williams Wagon and Implement Paint

It spreads easily, covers well and sticks tight—adding years to the life of your wagons and farm machinery.

For every surface about the farm there is a specially made Sherwin-Williams paint, varnish or stain. If you want to know just what to get for your barns, your house, your floors, your woodwork or your furniture, and just how to use it, write for our booklet, "Paints and Varnishes for the Farm." We mail it free.

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READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

THE FARM

A number of communities in Southeastern Kansas have made the hot summer much more bearable by organizing ice clubs. H. J. Bower, farm demonstration agent in that section, reports a number of these co-operative clubs in Cherokee and Labette counties. Each member takes his turn going to town for ice and delivering it to the members of the club. The ice is cut into 150-pound pieces and packed into the wagon bed at 15 cents a cut.

Men who understand silo construction are in great demand throughout the state now, writes Edward C. Johnson, superintendent of institutes of Kansas Agricultural College, last week. Many inquiries for such men have come to the Agricultural College within the last few weeks. The calls come chiefly from Western Kansas. J. L. Boles, of Liberal, reports that hundreds of pit silos are being built in Southwestern Kansas, and Clyde McKee, farm demonstration agent at Norton, reports the same to be true of the northwestern counties. A. S. Neale and W. A. Boys, of the college, are kept busy helping in silo construction in various parts of the state.

It is worthy of note that Kansas is buying back many of the cattle she ships to the Kansas City market, and it must be remembered that Kansas does not ship near all the cattle these days going to Kansas City. In his letter from the Kansas City Stock Yards under date of August 29, Market Correspondent J. A. Rickert wrote: "Kansas pasture cattle have sold well to killers, getting the full advance, range $6.50 to $8.15. The great feature of the cattle market is the phenomenal buying of thin cattle for shipment to the corn states. Iowa leads this week, having taken 17,500 head in four days, Missouri following with 6,800, Illinois 6,700, Kansas 2,700, Indiana 1,600, Nebraska 1,100, Ohio 700, scattering 900, total 38,000—practically one-half the total supply."

The question is often asked if silage will keep in good feeding condition two or three years. There is ample farmers' experience to prove the keeping of silage in perfect condition for feeding the second year after cutting, but it is not often we are able to get the experience of a farmer who has feed three years old. Such, however, is the experience of our subscriber, Charles Stevens, of Cherokee County, who writes: "Three years ago I built a silo 16 x 32 feet on the metal lath plan, the concrete being plastered onto the lath until it was four inches thick. I filled it at that time with corn, but a few weeks thereafter sold most of my stock and did not need the feed. Notwithstanding the fact that I have never had a top on my silo and that this silage has been in it for almost three years, I have this season been feeding it and find it in excellent condition. In other words this three-year-old silage in my silo which had no top is the only feed which my stock, both horses and cattle, have had for nearly eight weeks, and they seem to be doing well. I see no reason why my silo will not be good 100 years from this time, and think it is the best investment that I ever made in improving a farm."

The conditions of this year have pretty well demonstrated the advantages and the necessities of the summer silo. There are hundreds of farmers throughout Kansas who had enough silage left last year to supply their herds with feed upon the early drying up of the pastures, and which silage kept the herd in good condition until such time as this year's feed crop was ready for siloing. In most instances the held over silage this year was in those silos which more than supplied the herd during the feeding season of last year. However, there were some few farmers, and particularly dairymen, who last fall had erected and filled the second silo, using this feed as an insurance against a short crop year or to supplement early failing pastures, and these silos have already more than paid for themselves. On the well regulated stock farm the second silo is essential. It should be used as a reserve silo, the result being that in it a whole year's feed is stored and fully protected from depreciation. The live stock man will realize the benefits of a year's accumulation of feed only when he has provided such accumulation and has felt its need and actually experienced its benefits. Elsewhere in this issue of KANSAS FARMER is the experience of a subscriber who this year is feeding three-year-old silage. The live stock farmer is not permanently in the live stock business and in that business to the fullest advantages possible until he is able to store feed in a succulent and highly palatable condition from one year to another.

The disadvantages of hit and miss methods of planting corn, kafir and cane were never before better illustrated than this year. For instance, farmers who for any reason planted more seed than good judgment would dictate, obtained stands so thick that the crop burned rapidly at the first appearance of the dry weather. On the other hand, farmers who planted thin, either purposely or by accident, are those who have a crop. A drive of a few miles into almost any section of the country will illustrate these two points. In a ten-mile drive out of Topeka a few evenings ago we passed several thinly-planted corn fields which will yield 25 to 35 bushels per acre. Adjoining fields on the same quality of land and apparently equally well cultivated, but planted thick, will yield nothing. Newton Scott of Tecumseh is a farmer who will have more corn than any of his neighbors, and which crop in so far as he is concerned is wholly accidental. He thought he was planting a good deal more seed than he did. When he had opportunity to observe the stand he was disgusted. The fact is that his stand is much thinner than any listed corn we have seen and is not much thicker than would check-rowed corn be with one stalk in a hill. On every stock in this field is an ear of sound corn and which corn can be attributed to no fact other than to thin planting. It is our opinion that the stand could have been at least one-third thicker with just as satisfactory results in so far as earing is concerned. KANSAS FARMER has repeatedly stated that in its judgment corn growers generally were planting two times as much seed corn as was necessary or as was likely to give the best results taking one year with another. Until we come to understand that the exceptional year is the year to guard against, that moisture is the controlling factor in corn production, and that we should not plant on the land more corn than the normal moisture will supplant—not until then will we make the production of a corn crop as certain as is possible. If the available moisture for two stocks of corn is to be divided between four or five stalks, it is reasonably certain that during the abnormal years there will be no corn on the four or five, whereas the available moisture concentrated in two stalks would produce corn. More careful planting methods are to be seriously considered as a means to increased and more certain crop production.

Not long since we were discussing the matter of growing wheat, with one of the best wheat growers of Decatur County. This man farms, himself, several hundred acres of his land to wheat. Last fall the wheat seeded by himself as well as that seeded by his tenants was sown under extremely favorable conditions. The soil was well supplied with moisture, the plowing was done early and deep, and the seed bed was regarded as being in the best condition. On the land seeded by this farmer he used scant three pecks of clean seed wheat per acre. He plead with his tenants to use the same quantity of seed, which was the same as his own, he furnishing it. However, his tenants were so elated over the conditions under which the wheat was to be seeded that they would not listen to less than one bushel or four pecks of seed to the acre. In the early spring it appeared as if the heavy seeding would far outyield the thinner seeding. When the dry weather came and the real weather test of the crop was made, the heavy seeding gave the low yield and the thin seeding the heavy yield. The quality of crop from the thin seeding was superior to that of the thick seeding. This illustrates the advantages

of not overtaxing the available moisture by attempting to grow more than it will support, and is another evidence supporting our contention that generally speaking and for a 10-year period, our seeding is not as wisely done as the light of experience would justify. It must be remembered, as we have many times stated, that moisture is the controlling factor in the production of crops in Kansas, as in most other states, that we must figure on the exceptional year and taking these things into consideration, thinner seeding and the use of a better quality of seed will give more uniformly satisfactory results.

The news press has during the past few weeks contained many notices of those farmers who are elated at the grain production of a so-called new crop and which is variously named as "Egyptian corn," "Egyptain wheat," "Indian millet," etc. KANSAS FARMER editor has seen a number of samples from the fields of this so-called new grain crop from this year's fields. Egyptian corn and Egyptain wheat and other names, possibly, by which the crop is known, is nothing more or less than Sudan Durra—a variety of non-saccharine sorghum which produces grain similar to kafir and milo. The value of this grain was reported by numerous correspondents in KANSAS FARMER during last winter and early last spring and by most correspondents was known as "feterita." In fact in KANSAS FARMER issue of August 9, on page two appeared the appreciation of this crop as given by the Federal Department of Agriculture, and which statement in brief is to the effect that its earliness, its rather low moisture requirements, its satisfactory yields, give it a real place among the sorghums either for grain or combined grain and forage purposes. The report says: "No farmer should discard dwarf milo or dwarf kafir for feterita, however, until he has determined with certainty that on his farm it will outyield the staple crops when grown under identical conditions. The data at hand are limited but they do not justify the claim that feterita will outyield dwarf milo." The experiences of those farmers with the crop and which experiences were printed last fall and winter, indicate that feterita has certain objectionable features which do not commend it to the farmer who is desirous of harvesting its grain. This, because the plant suckers and each sucker produces a head, large or small, and so the heads of the field are ripening at different times. Futhermore, feterita shatters badly. When the head is ripe it should be harvested in order to avoid wastage. The greatest success reported in its use as a grain crop was in those instances in which the crop was hogged down. That is, hogs were turned into the field and the crop in this way converted into pork. There is little question but that Kansas farmers are justified in investigating the possibilities with reference to this crop, but there is yet no occasion whatsoever for the belief that we have made a discovery of a plant of greater value than pure strains of kafir and milo.

How Much Seed Corn to Select.

It will require about 17 ears of corn to plant three kernels per hill in thick rowed corn. If you list, it is the editor's judgment that no more seed than this should be used on average good upland and the kernels should be dropped as nearly as possible one in a hill and the space should be as equally distributed as possible. Remember, however, that in selecting the corn in the field, you go over it rather hurriedly. When winter comes, and you look the ears over carefully, you will find many that will not suit you. Of those that do suit, a number may not grow strong, unless the corn is properly dried and stored. A good rule is to select twice as many ears from good plants in the field as are needed to plant the required number of acres next year. This allows a very close selection to be made during the winter.

Parasite of the Chinch Bug Egg.

A parasite destructive to the egg of the chinch bug has been discovered by the department of entomology of the Kansas Department of Agriculture. KANSAS FARMER hopes and believes, that this discovery will be turned to some practical and commercial value. The work with the parasite has been done by J. W. McCulloch, assistant entomologist who writes:

In the experiments conducted this year to determine the time of the first appearance of young chinch bugs and the mortality of the eggs, a large number of eggs were collected in the field for examination. The eggs which were collected at different intervals and in different localities were examined daily. While thus examining the eggs it was noticed that some of them became dark in color instead of assuming the usual red coloring. These eggs were isolated and on May 19 there emerged from them three parasites. With these three parasites as a basis, the life history was carried through four generations, running up to July 5. Since this was the time between the two broods of the chinch bug, it became impossible to obtain additional chinch bug eggs with which to continue the work. From July 5 to July 23 only an occasional parasitized egg was found in the field, but beginning with the latter date, parasitized eggs were found in large numbers in the corn fields and the second generation was obtained by August 10. Up to the present date this year over 325 individual parasites have been bred out. The length of the life cycle has been found to vary from ten to eighteen days, depending on the climatic conditions.

The parasite has been found in every wheat and corn field examined around Manhattan. Of 3,101 eggs collected between April 28 and June 10, the average per cent of parasitism was 20.8, and of 116 eggs collected in central Kansas at Crawford, the per cent of parasitism was 16.3. The insect has also been taken in southwestern Kansas at Dodge City.

The work is still under way and a full description of the parasite together with notes on its life history and efficiency will be published later.

A. B. Gahan, Entomological Assistant of the Bureau of Entomology, U. S. Department of Agriculture, to whom specimens of the parasite were sent for determination, says:

"It seems probable that they represent not only a new species but possibly a new genus." In a more recent letter Mr. Gahan writes: "After exhausting every effort to determine the parasites of the chinch bug which you sent me and failing to find any such species described, I turned the specimens over to J. C. Crawford of the United States National Museum to see what he could do with them. He informs me that he had arrived at the same conclusion as myself, namely, that the species would require a new genus."

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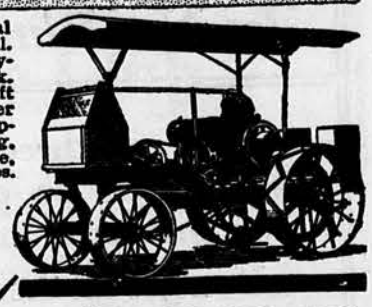

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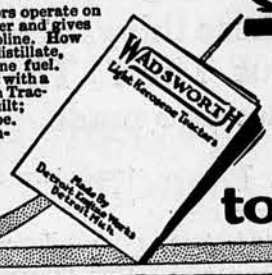

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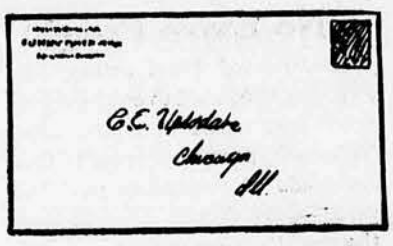

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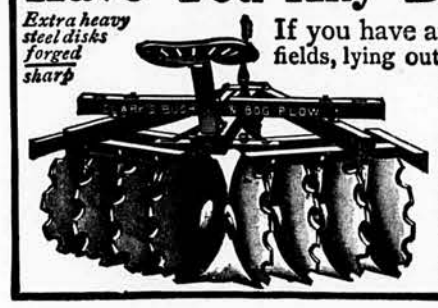

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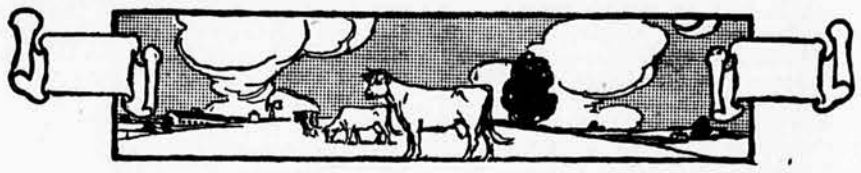

In a recent address the president of the Illinois State Dairymen's Association stated that a record had been kept of the dairy operations on 317 farms in Illinois, showing that 225 farms made dairying pay as much as $5,000 a year while 92 farms lost as much as $1,500 cash annually. One of the number of farmers kept a herd of 36 cows which cows showed a profit of $3 on every dollar expended in feeding and caring for the herd.

While talking about economics of the dairy it is not amiss to state that in skimming the milk it will be advisable to separate the cream as heavy as possible and so retain on the farm as large a proportion of the milk as possible in the form of skim milk. The creameries have no use for a surplus of milk in the cream shipped them. Cream 35 to 40 per cent butter fat will not be too heavy to handle economically and ship conveniently. To skim cream of this percentage of fat it will be necessary to so adjust the separator that about one gallon of cream may be taken from ten gallons of milk. There are thousands of farmers in Kansas who are shipping with their cream enough skim milk every week to supply a litter of pigs with a good feed daily. It is not dairy economy to give away skim milk. If heretofore the skim milk has been regarded as of little value on the farm, then the feeder has much to learn regarding its value.

Begin thinking now about the farm plans for next year. A year like this teaches its lessons and is not without its compensation. We will guarantee that every farmer who reads this paragraph has thought of many things which he could have done had he felt so disposed and which would have helped to smooth over present conditions. We know of men who in their business affairs are thinking as much as three, five or ten years ahead, who are right now laying plans for things which they hope and will make a desperate effort to accomplish for the good of their business that far in advance. One of the weaknesses which can logically be charged against the farmer generally is that he thinks from year to year. He will begin thinking this fall late about his planting methods of next spring, and when planting time comes in the spring will be thinking about fall planting methods. If he considers the future at all, he figures about six to twelve months ahead. Many do not figure in advance at all. The farmer will never come into his own—he will never reach the degree of permanency and prosperity in his business to which he is entitled and to which farming as a business entitles him—until he begins figuring far enough on the future to avoid much of the depreciation attendant upon a few months of adverse conditions. While this paragraph appears in the dairy column, nevertheless it applies not only to dairying but to all phases of farm activity. Sit down with this paragraph, read it over several times, and see if you cannot read into it many things for your own benefit not here expressed.

It is printed that at a recent dairy meeting a speaker said: That the 21 per cent decrease in beef cattle population during the recent year or two was due to the fact that dairying was being vigoriously pushed and that dairying detracted from the production of beef and that the kind of dairy cow we were patronizing did not yield an annual profit sufficient to fill the gap due to the diminishing of the general farmers' interest in beef production. We did not hear these remarks, and state the speaker's deductions above only as reported by a dairy paper. We are therefore not quite ready to accept the statements made above as being the correct statements of the speaker. The fact is that generally speaking we are not patronizing the right sort of cow in our dairy operations. KANSAS FARMER readers well understand the editor's views on this matter. Our understanding, too, of the growing of skim milk calves is not such as enables the average dairy farmer to sell those calves either as finished beef or as feeders to the best advantage possible. However, dairying is much closer to the permanent prosperity of the average farmer than is beef production. For this reason alone dairying will in the years to come extend gradually and more and more farmers will be milking cows. As we view it, the beef of the future must come from the small farm. It will be produced on these farms in the shape of calves which are to be finished by the feeder or the calves will be finished on the farm on which they have been reared, having been fed and finished on the grains of the farm. It seems that this is a logical conclusion. It seems, too, that this is a natural tendency which cannot be averted. Furthermore, it seems that it is a tendency which should not be averted even where it is possible so to do. Inasmuch as the beef crop can be cashed upon only about once every 12 months, which is a pay day quite too infrequent to meet the needs of the average farmer, and while on the other hand dairy products can be realized upon in money from day to day as they are milked and delivered to the creamery, and inasmuch as this latter condition is one which farmers generally need and recognize as being to their best interests, it seems to us that dairying for the small farmer is the dependable and frequent source of cash income which he must patronize to a greater extent in the future than in the past, even to a possible detriment of beef production.

Not only will cow feed in many sections be short this fall and winter, but likewise hog and pig feed will be short. This leads to the necessity of the most judicious use of skim milk. It is not unusual to find a feeder who places a value of 50 cents a hundred upon the skim milk from his dairy. On the other hand there are many farmers who regard 20 cents a hundred as high value. The difference in value placed upon this product is not due to the difference in the milk found on these respective farms, but is due to the different methods of feeding. It will pay, then, to learn the most economical way in which the milk can be fed and in so doing utilize every pound to the greatest advantage possible. We have frequently stated in these columns that a farmer can no more afford to waste or feed extravagently a pound of skim milk than he can a pound of oats, regardless of the price at which oats were selling. It is recognized that both oats and skim milk are highly essential feeds to all kinds of young farm live stock, skim milk of course being indispensable to calves and pigs when young. The fact is that nine out of every ten skim milk calves are given two to three times as much skim milk as they need or can use to good advantage. By the feeding of kafir or corn meal the quantity of skim milk usually fed can be reduced one-half, giving better results in the case of calves and leaving a surplus of skim milk for the pigs and chickens, either of which will convert the skim milk into a profit equal to that obtained from the calves. A surplusage of skim milk is a good thing on every farm, and when the cows are being crowded to their limit in milk production the skim milk value should be carefully guarded and distributed to as many animals as possible. On hundreds of dairy farms throughout Kansas a bunch of hogs now on the farm will be finished on either this or last year's corn. A surplusage of skim milk over and above that needed by the calves on the farm will save corn, increase the gains and will add dollars to the pocketbook. So it is not economy to feed a calf two or three times the quantity of skim milk he needs. This will be a year, too, when the calves should not be fed skim milk longer than is absolutely necessary provided there are other animals needing the milk. It is a good plan, as we have frequently stated, to feed calves skim milk as long as they will drink it, and this statement is true. However, if other animals on the farm are in need of the milk it will be dollars in the pocket of the dairyman to economize in the feeding of milk to calves so that other animals may share in the consumption of this valuable by-product of the dairy.

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Grange Picnics.

It was your lecturer's great pleasure to attend two Grange picnics during last week, one at Oswego, Labette County, August 14, and the other at Arrington, Atchison County, August 16. Both were well attended by enthusiastic Grangers and their enthusiasm became contagious when dinner was announced. At the former place the writer was the only speaker. At the latter Mr. Hamm of Holton gave an instructive and interesting address in addition to the state lecturer's 20-minute talk. The Oswego Grange held a meeting at its hall Thursday evening and initiated ten new members, with the state lecturer in the master's chair. On Saturday evening an exemplification of the secret work was given to Arrington Grange in its hall.

The Grange picnic is certainly a fine medium for bringing those outside the order in touch with the Grange, and may their number increase. Grange secretaries, why not send reports of your picnics for this column?—L. S. FRY, State Lecturer.

Social Life in the Country.

There is a great awakening to the need of a better social life in the country, and earnest efforts along lines of reform are being put forth by enthusiastic leaders; but without the co-operation of the country people themselves it will avail but little. As the Grange is an acknowledged social "uplifter" and in the front "firing line," battling for the good and true and helping to refine, strengthen and beautify farm life, it is self-evident that we need more Granges, as there are many localities where the Grange has not yet been established. It combines work with pleasure; its petitions are listened to with respect by our legislators and many helpful laws are passed through its influence; it teaches us to love country life and the young folks who listen to our Grange teachings will see new beauty in farm life and the "gilt and tinsel" of city life will have less charm for them. As our editor has so truly said, "the country is not lacking in musical talent, artistic gifts, or dramatic and oratorical ability," and the Grange is an ideal place to develop these talents.

The literary and musical contests at the lecture hour, the animated discussions of farm problems and domestic science, the occasional lectures by prominent state speakers and the beautiful, instructive work of well-drilled degree teams are all social "helpers." If mistakes are made in the Grange they are kindly corrected and the diffident members are encouraged to put forth their best efforts, knowing that "sweet charity" will cover their blunders; and soon those who at first find difficulty in expressing their thoughts in public can speak with ease and intelligence.

In our Grange we have printed programs for the year and each member knows just when he will be called on to entertain or instruct, and aims to be well prepared. If you have no Grange in your community, be a booster, talk Grange to your friends and tell the county deputy you want to organize and if your locality is "socially dead" it will suddenly awaken to the responsibilities of life. If you are a social leader, have high ideals, hitch your wagon to a star and you will have many faithful followers. If there are mothers in your neighborhood who belong to whist or bridge clubs, coax them to organize a mother's club and they will soon find that they have no time for card parties. As the social activities of a place reflect the character of its inhabitants, it behooves us to choose wisely and well.

The rural church with its social work has done much for the country people, but we must have other social work to supplement this if we keep abreast of the times in this progressive age.—MRS. C. J. H. in National Stockman and Farmer.

100,000 Girls Belong to One Club Yet Few Know About It

The girls have a gold and diamond badge: every girl in the club makes money: some make over a thousand dollars a year. And yet, broadly speaking, few know about this club: the happiest, brightest and most prosperous club of alert girls anywhere in America, perhaps.

Where is this club? It is attached to *The Ladies' Home Journal:* a part of the personal service that is back of the magazine, and has made it, as some one said: "not a publication but an institution."

The Club is called simply "The Girls' Club." Its motto is as unique as anything about it: "With One Idea: to Make Money." It has a girl manager at the head of it, and every year she writes to and keeps in direct touch with these 100,000 girls.

Unique, isn't it? Good to know about it, if you are a girl, or have a girl.

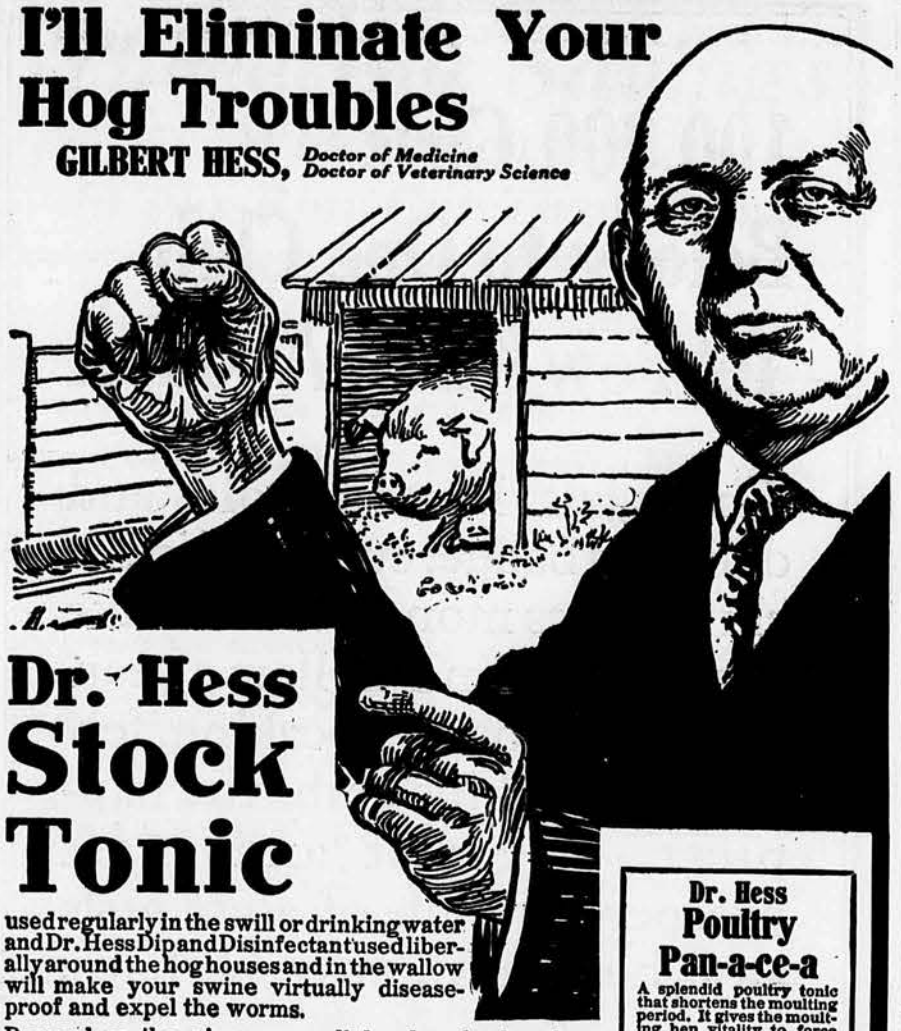
Each month the club has a regular column in *The Ladies' Home Journal.*

If you are a girl, young or old, and are interested in this club's "One Idea," send a letter of inquiry to

THE GIRLS' CLUB
THE LADIES' HOME JOURNAL
INDEPENDENCE SQUARE
PHILADELPHIA, PENNSYLVANIA

I'll Eliminate Your Hog Troubles

GILBERT HESS, *Doctor of Medicine, Doctor of Veterinary Science*



Dr. Hess Stock Tonic

used regularly in the swill or drinking water and Dr. Hess Dip and Disinfectant used liberally around the hog houses and in the wallow will make your swine virtually disease-proof and expel the worms.

Remember, the vigorous, well-developed, clean-kept hog is able to stand the ravages of these diseases far better than the weak, unthrifty animal. It is "the survival of the fittest" when hog disease is rampant.

In Dr. Hess Stock Tonic I have put every ingredient which my 25 years' experience as a veterinary scientist and doctor of medicine tells me a hog requires to keep healthy, thrifty and free from worms.

Heed this—a fattening hog that is not given tonics and laxatives is liable to come to trouble through overfeeding and a clogged system, just the same as a human being would suffer who ate a thanksgiving dinner three times a day without laxatives. Dr. Hess Stock Tonic contains the tonics and laxatives essential to heavy-fed animals.

I Absolutely Guarantee

that Dr. Hess Stock Tonic will make your stock healthy, thrifty, free from disease and free from worms. If it does not pay you and pay you well, I have authorized your dealer to refund your money. Never sold by peddlers. I save the peddlers' salary, the up-keep of wagon and team and give you the benefit, which these prices prove: 25-lb. pail $1.60; 100-lb. sack $5.00. Smaller packages as low as 50c (except in Canada, the far West and the South).

Manufactured by

DR. HESS & CLARK, Ashland, Ohio

Dr. Hess Poultry Pan-a-ce-a

A splendid poultry tonic that shortens the moulting period. It gives the moulting hen vitality to force out the old quills, grow new feathers and get back on the job laying eggs all winter. It tones up the dormant egg organs and makes hens lay. Also helps chicks grow. Economical to use—a penny's worth is enough for 30 fowl per day. 1½ lbs. 25c; 5 lbs. 60c; 25-lb. pail $2.50. Except in Canada and the far West. Guaranteed.

Dr. Hess Instant Louse Killer

Kills lice on poultry and all farm stock. Dust the hens and chicks with it, sprinkle it on the roosts, in the cracks and dust bath. Also destroys bugs on cucumber, squash and melon vines, cabbage worms, etc., slugs on rose bushes, etc. Comes in handy sifting-top cans, 1 lb. 25c, 3 lbs. 60c. Except in Canada and the far West. I guarantee it.

Makes Every Gasoline Motor Worth More

Polarine

FRICTION REDUCING MOTOR OIL

Polarine starts to lubricate at the first turn of the motor—even in winter, after standing for hours at a temperature of zero. It maintains the correct lubricating body at any motor speed or heat, on the hottest summer day.

It penetrates to every part and gives it full protection. It keeps friction at the no-wear point and thus obviates many costly repairs. And it serves in any type of motor—motor cars, motor boats, motor trucks.

Don't spoil a good motor with poor oil. And don't judge motor oil by appearance. The poorest oils may look as good as the best.

Polarine is made by the World's Oil Specialists after fifty years' experience with every kind of friction problem. Present day possibilities do not permit of the making of any better oil. All our vast facilities and resources are concentrated on Polarine. Get a can today.

STANDARD OIL COMPANY
(AN INDIANA CORPORATION)
Makers of Special Lubricating Oils for Leading Engineering and Industrial Works of the World

READ KANSAS FARMER'S CLASSIFIED ADVERTISING PAGE FOR READY BARGAINS

LIVE STOCK

O. E. Reed, head of the dairy department of the Kansas Agricultural College, will this month judge dairy cattle at the California State Fair. Professor Reed now is recognized as one of the best judges of dairy cattle in the country.

Milk Goats.

We have an inquiry from Pottawatomie County concerning the milk goat. A subscriber wishes to know whether there are any of them in this part of the state, cost of keeping them, amount of milk they give and other information.

The goat as a milk producer has long had a recognized place in Europe. There are some breeds of goats that are very heavy producers of milk. Goat milk is white in color and contains 4½ per cent butter fat on an average and somewhat more casin or albumen than cows milk. The fat is so minutely divided that it does not rise readily as cream. It is claimed that when milk from these milk goats is properly drawn and cared for there is no offensive odor connected with it.

Pure-bred milk goats are very scarce in this country. The Department of Agriculture several years ago took up the matter of introducing goats of these special milk breeds and a bulletin entitled "Information Concerning the Milk Goat" was published by the Department of Agriculture in 1905.

Those interested in the importation of milk goats from Europe have found it extremely difficult to secure stock. The Toggenburg breed of milk goats which is raised in the Toggenburg Valley of Switzerland has been bred there for centuries. This is a very hardy breed and probably has been introduced into the United States more extensively than any other milk breed. Some individuals of this breed have produced five, six and even seven quarts of milk daily. The period of lactation in the milk goat is about five or six months. They usually produce two kids at the birth. The period of gestation is five months as with sheep. C. F. Pfuetze of Manhattan, has for a number of years kept two or three milk goats of the Toggenburg breed to furnish him his family milk supply. He has become somewhat of an authority on the milk goats in that vicinity and might be addressed for further information.

Balanced Rations For Dairy Cows.

Our subscriber A. S. of Nemaha County, Kansas, has a herd of high grade Jersey milk cows which he wishes to feed the most economical balanced ration possible. He has a sufficient quantity of alfalfa hay to allow about 15 pounds daily per cow and plenty of silage. The silage, however, does not contain much corn. He wishes to know whether the addition of oil meal or cottonseed meal to alfalfa hay will make a thoroughly satisfactory balanced ration. Under conditions prevailing this year as to cost of feeds the use of a carefully balanced ration for milk production is a very important matter. An improperly balanced ration always means wasteful use of feeds and likewise a failure to secure profitable returns in milk flow. The digestible nutrients contained in common feeding stuffs are grouped under three general heads, protein, carbo-hydrates and fats. All feeds contain these nutrients in variable proportions. In feeding all animals the maintenance requirements of the animal must first be met. In other words, the animal must have a sufficient quantity of these nutrient materials to enable it to carry on the ordinary functions of life and to renew worn out tissue. A 1,000 pound milk cow requires for maintenance seven-tenths of a pound of digestible protein, seven pounds of carbo-hydrates and one-tenth of a pound of fat. A ration supplying nutrients in these proportions and amounts will barely maintain the cow without producing milk or any increase in body weight. Such a ration fed to a highly bred dairy cow would not necessarily stop the flow of milk entirely since such cows have the milk giving instinct so strongly developed that they go on producing milk at the expense of stored body tissue. After a period of time the cow would become so emanciated and run down that no further production of milk could be possible. From careful experiments it has been determined that after the maintenance requirements have been supplied, it will require for each pound of milk produced .05 of a pound of protein, .22 of a pound of carbo-hydrates and .017 pounds of fat. On this basis a cow producing 35 pounds of average milk daily will require in addition to the maintenance requirements 1.75 pounds of digestible protein, 7.7 pounds digestible carbo-hydrates and .56 pounds digestible fat.

In order to economically feed a dairy cow it is always desirable to supply as much of the nutrients required in the roughage part of the ration as possible. Alfalfa hay contains relatively much larger amounts of protein than corn silage. Both are very palatable forms of roughage and in combination form a most satisfactory and economical basis for a milk producing ration. For a cow of moderate production giving in the neighborhood of three gallons of milk a day, 15 pounds of alfalfa hay and all the corn silage the cow will consume which will ordinarily amount to 30 or 35 pounds daily, will supply sufficient digestible nutrient material for the production of this quantity of milk. The following table shows total dry matter and likewise the digestible nutrients contained in such a ration:

	Total Dry Matter; lbs.	Digestible Protein; lbs.	Digestible carbo-hydrates; lbs.	Digestible Fat; lbs.
15 lbs. alfalfa	13.98	1.66	5.86	.09
35 lbs. silage	9.20	.38	5.21	.24
Total	23.18	2.04	11.07	.33

In order to produce larger quantities of milk if a cow has a capacity for producing more milk, it will be necessary to supply additional nutrients. Additional roughage cannot be consumed so the extra nutrients required must be supplied in a more concentrated form. It is commonly estimated that about one pound of a properly balanced grain mixture must be supplied for each additional four pounds of milk. For supplying this additional nutrient material in a concentrated form a combination of four parts corn chop, two parts bran and one part cottonseed meal would probably be the most satisfactory ration to suggest to our correspondent. One pound of this mixture would supply .12 pounds of digestible protein, .52 pounds digestible carbo-hydrage and .5 pounds fat. Ten pounds of additional milk would require about 4 pounds of this mixture, or in other words, a cow that is capable of producing 35 pounds of good average milk, can be fed 15 pounds of alfalfa hay, 30 or 35 pounds of corn silage and 4 pounds of this grain mixture. If, as our correspondent suggests, the extra grain fed with this roughage ration should be cottonseed meal only, much more digestible protein would be supplied than would be needed for milk production. Since cottonseed meal is more expensive than corn meal or bran, such a ration would necessarily be less economical than the properly balanced ration suggested.

At the present time on the market prime cottonseed meal is quoted in carlots at $31.00 a ton. The cold pressed cottonseed cake which contains the hull of the seeds is quoted at $26.00 per ton. Old process oil meal is quoted at $34.00 a ton in carlots. At these prices prime cottonseed meal is a cheaper feed than oil meal since it contains a larger per cent of digestible protein.

If farmers would adopt the same plan of marketing the wheat that the cotton planters have for marketing the cotton, the price would be some better. This plan would be to hold part of the wheat and not put it all on the market at once as is now the rule. Of course this would cost some extra labor and expense but we think it would pay. One farmer can do nothing alone, however and this again calls to mind the necessity for co-operation in a large way if farmers would protect their own interests.

You're really dry
in a
Fish Brand Reflex Slicker

Not a dressy "near" water-proof, but a roomy, comfort-giving service coat that will protect you through thick and thin in the wettest weather.

$3.00 at your dealer's

We print plainly on every label
SATISFACTION GUARANTEED
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TOWER'S FISH BRAND — Identified always by this mark — *Catalog free*

613 A. J. Tower Co. BOSTON
Tower Canadian Limited, Toronto

Bargains in Land

Book of 1,000 Farms, etc., everywhere, for exchange. Graham Bros., El Dorado, Ks.

BUY or Trade with us—Exchange book free. BERSIE AGENCY, El Dorado, Kan.

FOR SALE

Improved 120 acres, five miles of two good towns; 40 acres prairie hay land, 10 acres prairie pasture, balance in cultivation. Price, $4,000.
200 Acres unimproved; 40 acres smooth prairie hay land, 160 acres prairie pasture land; spring water. Price, $35 per acre. Both located in Anderson County.
W. L. WARE, Garnett, Kansas.

CLOUD COUNTY LANDS

240-acre stock farm; 65 under plow. Good investment at low price. Write,
W. C. WHIPP & CO., Concordia, Kansas.

80 A. Improved Valley Farm, 35 cult., on Ry. $16 a. Robert Sessions, Winthrop, Ark.

OZARK FARMS—Timber, fruit and pasture lands for sale or exchange, from $5 to $100 per acre. If interested write
AVERY & STEPHENS, Mansfield, Mo.

SECURE CASH for your property, no matter where located. To buy or sell. Write for particulars, giving full description. National Property Salesman Co., Dept. 10, Omaha, Neb.

ADMINISTRATOR'S SALE.—640 acres, good wheat, corn and alfalfa land; two sets of improvements; in German settlement near church and school; near Carleton, Thayer Co., Neb. Price, $100 per acre. Must be sold. Address Wm. Gallant, Hebron, Neb.

ALWAYS HAVE
Just what you want in farm or city property. A new list just out. Write for it. List your sale and exchanges with me. Hardware for sale.
ED A. DAVIS, Minneapolis, Kansas.

LAWRENCE REALTY COMPANY
The Home of the "Swappers," handles exchanges of all kinds with agents or owners. Write us for particulars.
Lawrence Realty Company, Lawrence, Kan.

FOR QUICK SALE—140 acres imp., 100 acres cult., lies well; 30 acres hog-tight, 25 acres alfalfa; 3½ miles good Lyon County town. $35 per acre. A snap for the cash. No trades. Easy terms.
FRED J. WEGLEY, Emporia, Kan.

320 ACRES good local bottom land on Republican River. No sand. No overflow. All good alfalfa land; all fenced; 65 acres broken out; never failing spring; water crosses one corner. Three miles from town. $30.00 per acre. BROWN LAND & LOAN COMPANY, Superior, Nebraska.

FINE FARM, BUTLER COUNTY, KANSAS. 275 acres; 95 a. first bottom, 40 a. alfalfa, 150 a. cult., 120 a. best blue stem grass; new improvements; near El Dorado; beautiful farm. $20,000.
V. A. OSBURN, El Dorado, Kansas.

DICKINSON COUNTY BARGAINS.
We have many fine creek and river bottom farms, also splendid upland farms for sale. Soil deep rich black loam, producing the big corn, wheat and alfalfa. Our prices are reasonable. Write for terms and list.
Briney, Pautz & Danford, Abilene, Kan.

TO TRADE FOR LAND IN ARKANSAS.
320 acres 9 miles north of Dodge City, Kansas; 90 acres in cultivation, new house 16x28. Stable room 28 head stock. Shed barn. Well and windmill, chicken house, good granary. Rural free delivery and telephone. Price, $4,800. $1,500 against land due 2 years. Will trade this for a farm near Sheridan, Arkansas.
H. B. BELL LAND COMPANY,
Room 5 Commerce Building.
Phone No. 2 - - Dodge City, Kansas.

VIRGINIA OFFERS fertile farm lands at $15 to $50 per acre. Ideal fruit and grazing land at $5 to $15 per acre. Abundant rainfall, long growing season, nearness to World's best markets, mild and delightful climate, educational advantages and great promise for the future.
VIRGINIA WANTS 10,000 young and industrious practical farmers to occupy and cultivate the vacant farms and help reduce the cost of living. Write at once to
VA. LAND IMMIGRATION BUREAU, 6 Gale Block, Dr. W. J. Quick, General Manager, Roanoke, Va.

FIELD NOTES

Laude Cuts Prices.

G. A. Laude & Sons, the well-known Shorthorn breeders of Rose, Kan., will next week make a special 25 per cent cut in prices on fifteen head. Watch for their ad and mention Kansas Farmer when you write.

POULTRY

Don't keep over winter any more chickens than you need or can sell for breeding purposes next spring. Chicken feed will cost money this winter.

As nearly everything green in reach of the chickens has been burned up, you should begin to supply them with green feed, if you would keep up the egg supply.

Sort out the small potatoes for the chickens. Cook them and place in their feed troughs just as they are. Or some corn meal and bran can be mixed with the potatoes, after the latter have been mashed. Thus the small potatoes that are unsalable can be used to advantage.

Probably Limberneck.

A subscriber writes from El Dorado, Kan., as follows: "My chickens have a disease that is entirely different from anything I ever saw before. They throw their heads from side to side and when one goes near them they will try to get away, and are just as apt to run right toward you as in any other direction. They become very light and can not see very well if the least bit confused. They are very pale around the head, comb and wattles, but do not seem sick in any other way; have good appetites and do not die very soon after taking the disease. I have some that have had it for three months. I have killed several of them when they got so bad they seemed crazy—couldn't do anything but turn over and over when they tried to walk. I do not think it is the feed, for I had some penned for eggs to sit and others on range. All had it alike. They never get over it when once afflicted. I fed corn, kafir, bran and beef scraps. They had plenty of good water, oyster shell grit, sand, and lime. I would like to have you give me a remedy for this disease if you can through the poultry department of KANSAS FARMER. Please publish this, and if any subscriber can give me some remedy through your paper, I would be very thankful."

From some of the symptoms described we should say the disease was limberneck, caused by eating some dead animal or other putrid matter. The remedy, of course, is to keep the fowls away from the source of infection. If any reader's fowls have been similarly affected and a remedy has been found for the same, we would be very glad to publish it for the benefit of subscribers in general.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items or stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 300,000 readers for 4 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

SITUATIONS WANTED ads, up to 25 words, including address, will be inserted **free of charge for two weeks,** for bona fide seekers of employment on farms.

HELP WANTED.

WANTED—MEN AND WOMEN FOR government positions. Examinations soon. I conducted government examinations. Trial examination free. Write Ozment, 44R, St. Louis.

FREE ILLUSTRATED BOOK TELLS OF about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet S-809. No obligation. Earl Hopkins, Washington, D. C.

GOVERNMENT JOBS OPEN TO MEN and women. $65 to $150 month. Vacation. Steady work. Short hours. Common education sufficient. "Pull" unnecessary. Thousands of appointments coming. Write immediately for full particulars and list of positions open. Franklin Institute, Dept. S-85, Rochester, N. Y.

REAL ESTATE.

SNAPPY EXCHANGES. TELL ME YOUR wants. Karges, Bennington, Kan.

ARKANSAS FARMS. WRITE FOR Homeseekers' Guide and large list of bargains. Moore, Searcy, Ark.

SELL YOUR PROPERTY QUICKLY FOR cash, no matter where located. Particulars free. Real Estate Salesman Co., Dept. 77, Lincoln, Neb.

NORTHWEST ARKANSAS FARMS—Benton County. Ideal climate. Good crops as usual. Map and prices free. Write Behart Land Co., Cave Springs, Ark.

FOR EXCHANGE—CHOICE TOPEKA residence, near Washburn College, equity $3,500, for clear land. Chaney & Co., Topeka, Kan.

ELLIS COUNTY—WRITE ME FOR bargains in wheat and alfalfa lands; 80, 160 or 320 acres. Lands to exchange for other property. H. W. Oshant, Hays City, Kan.

LISTEN!—$49.00 WILL GET YOU 320 acres of good homestead grazing prairie bottom land. $3.00 per acre will get good land under irrigation ditches that you do not have to live on. Leon Moorhouse, Lamar, Colorado.

DO YOU WANT A HOME IN A WELL-watered, rich alluvial valley; three railroads and near big city—mild climate and natural dairy country; on terms of one-tenth cash, balance nine years. Write Humbird Lumber Co., Sandpoint, Idaho, about cut-over lands.

OREGON BOOK FREE, SENT ON REquest. Official state book telling of Oregon's resources, climate and agricultural opportunities for the man of moderate means. Questions will have painstaking answer—we have nothing to sell. Room 16, Portland Commercial Club, Portland, Ore.

SHEEP

HAMPSHIRE YEARLING RAMS FOR sale. E. E. Hazen, Hiawatha, Kan.

PATENTS

SEND FOR FREE BOOKLET, ALL About Patents and Their Cost. Shepherd & Campbell, Patent Attorneys, 500-R Victor Bldg., Washington, D. C.

CATTLE.

REGISTERED SHORTHORN BULL 12 mos., dark red, to sell. R. L. Skubal, Jennings, Kan.

FOR SALE—REGISTERED HOLSTEIN bulls. Smith & Hughes, Topeka, Kan., Route 2.

FOR SALE—REGISTERED HOLSTEIN bull calf and some choire bred heifers. G. V. Pontious, R 2, Rantoul, Kans.

WELL BRED GRADE HOLSTEIN BULL calves crated at $20 per head while they last. Arnold & Brady, Manhattan, Kan.

FOR SALE—25 HEAD 2-YEAR-OLD Jersey heifers in calf; some springing now. Also a few choice Jersey cows. R. F. Hodgins, Topeka, Kan.

FOR SALE—32 HEAD HOLSTEINS, Shorthorns and Jerseys, all bred from winter cows. Good young stock. Owned by dairymen going out of business. Sell all for $60 a head. Jack Hammel, 215 Adams St., Topeka, Kan.

MISCELLANEOUS.

WANTED—SHEEP TO WINTER ON the shares. D. Runner, Geneva, Kan.

WANTED, BY INDUSTRIOUS BOY OF 19, place to work for board and go to school. Address Farm Boy, care Kansas Farmer.

POTATOES, SWEET POTATOES, FRUIT, honey and other produce shipped direct to consumers at wholesale prices. The Copes, Topeka, Kan.

BOOK-KEEPING OR SHORTHAND course easily mastered. Easy terms. Write for book 26 Brown's Correspondence School, Freeport, Illinois.

THE ANDERSON LOADER LOADS MAnure, cornstalks, stack bottoms, dirt, gravel, sand. No hand work. Write Anderson Mfg. Co., Osage City, Kan.

MILK BUSINESS IN PUEBLO, COLO., for sale. Well established, making money. Must sell because of other interests. Price, $2,000. Frederick Petersen, 408 Central Block, Pueblo, Colo.

SEEDS AND PLANTS.

KHARKOF SEED WHEAT, TEST 62, sacked, f. o. b. on board car for $1.10 per bushel. V. E. Carlson, Formoso, Kan.

ALFALFA SEED FOR SALE AT $7.00 per bushel, just threshed. Clean seed. Write for samples. G. A. Petty, Toronto, Kan.

ROSE LAWN FARM KHARKOF WHEAT. Pure graded seed $1.20 per bu., f. o. b. McPherson. Sample free. Wilson G. Shelley, McPherson, Kan.

ALFALFA SEED. FANCY ALFALFA seed for sale. Fine quality, non-irrigated seed, no weeds. $8.25 per bu. Write for samples. Horney Bros., Neodesha, Kan.

BEE SUPPLIES.

BEE SUPPLIES. ROOTS GOODS. SEND for catalog. O. A. Keene, 1600 Seward Ave., Topeka, Kan.

HONEY.

FOR HONEY FROM HIVE DIRECT TO you, write A. S. Parson, Rocky Ford, Colo.

GUARANTEED PURE EXTRACTED honey gathered by my own bees. Freight paid on 120-pound case for $12. W. C. Evans, Route 1, Box 17, Fort Collins, Colo.

HONEY—SIX TONS EXTRACTED honey for sale, white clover and heartsease. Refined on the hive. Thick, rich and delicious. Sixty cases of No. 1 comb, fine. W. S. Paugburn, Center Junction, Iowa.

NEW, PURE, EXTRACTED HONEY, two cans of 60 lbs. each $9.50. Special prices on 10-can lots. Broken comb honey, 2 cans of 60 lbs. each, $11.00. J. M. Ruyts, Carlsbad, New Mexico.

POULTRY.

POULTRY WANTED. COOP LOANED free; daily remittances. "The Copes," Topeka, Kan.

SILVER WYANDOTTES. MARCH hatched cockerels; reasonable. Blanche Miller, Route 1, Wakefield, Kan.

BUFF WYANDOTTES—CHOICE BREEDing stock at all times. A few bargains in males and females from our 1913 breeding pens. Must be taken soon. Wheeler & Wylie, Manhattan, Kan.

HOGS.

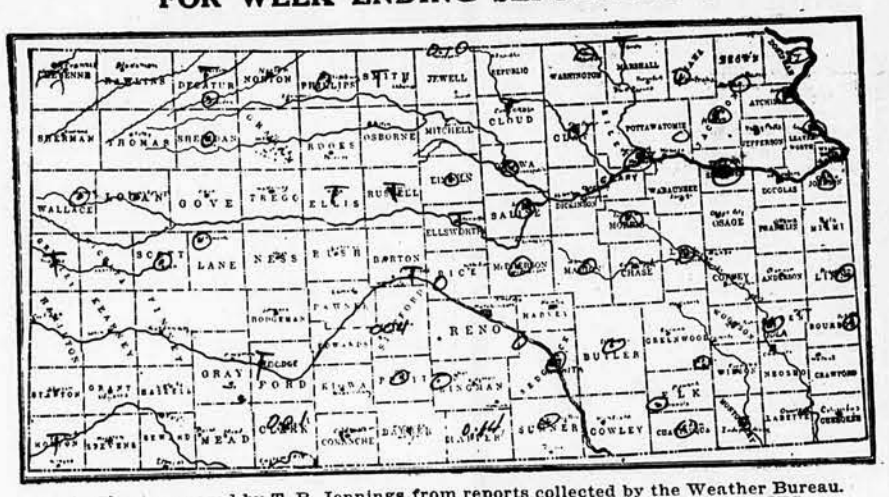
REGISTERED HAMPSHIRE PIGS FOR sale, 75 pounds, $15.00. Will Woodruff, Kinsley, Kan.

AUSTRALIA.

SPECIAL LAND SEEKER'S EXCURsion next November to Victoria, Australia. Early reservation of berths desired. Reduced steamship passages and free rail travel for inspection. Government of Victoria wants settlers and offers unusual opportunities. Land suitable to all requirements; exceptional terms. Free particulars from F. T. A. Fricke, government representative (from Victoria), Box 34. 687 Market St., San Francisco.

When writing advertisers, please mention KANSAS FARMER.

KANSAS CROP REPORT
FOR WEEK ENDING SEPTEMBER 6



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

UNITED STATES WEATHERS OBSERVER'S REPORT BY COUNTIES.

Barton — Farmers disking ground for wheat. Hay all harvested; light crop.

Butler — Water getting scarce, but will hold out a few weeks longer.

Clay—Corn being cut for fodder silage. Too dry to plow.

Cloud—Ground too dry for plowing.

Crawford — Farmers nearly all hauling water. No plowing being done for wheat.

Decatur—Rain needed for seeding.

Doniphan—Drouth conditions continue unchanged.

Elk—Drouth growing more serious.

Greeley — Sorghum and other crops on summer fallow are maturing nicely. Practically all other crops harvested. A very pleasant week.

Harper — Drouth and heat continue. Water supply holding out well.

Jackson—Filling silos, cutting corn for fodder. Threshing alfalfa seed.

Jewell—Light rain. Corn cutting the order of the day.

Johnson—Farmers digging deep wells. Very little preparation for seeding.

Kingman—Milo and kafir about all cut. Hay all cut.

Leavenworth—Cutting corn for fodder.

Lincoln—Too dry for seeding.

Marshall—Some plowing for wheat. Cutting corn for fodder.

Morton—Showers in parts of the county, heavy at Elkhart.

Nemaha—Wheat all threshed; alfalfa threshing done; yield about two bushels per acre. Corn cutting about one-third done. Most of it will be cut for feed.

Phillips—Too dry for plowing. Fodder about all cut.

Russell—Very dry. Wells and cisterns drying up.

Scott—Still dry. Plenty of water in wells.

Sheridan—Some sowing wheat. Corn about all cut. Cutting the fourth crop of alfalfa and there is not a well dry in the county.

Smith—Very little plowing. Cutting corn for fodder. Wells failing.

Sumner—Farming at a standstill. Water scarce.

FIELD NOTES

Durocs and Polands Priced to Sell.

In this issue will be found the card of Dr. E. G. L. Harbour, Baldwin, Kan., offering March and April spring pigs, both Durocs and Poland Chinas, at $10 per head. This is a dry weather price in order to close them out quick. They can all be registered and are bargains at the price offered. Please read ad and write today, kindly mentioning Kansas Farmer.

Guernsey Milk Cow for Sale.

Dr. E. G. L. Harbour, Baldwin, Kan., is offering for sale one 4-year-old Guernsey milk cow which cannot be registered but is almost pure-bred. She is a splendid family cow, priced at $75. Please read ad in this issue, and kindly mention Kansas Farmer when you write.

Timely Suggestions for **KEEN KUTTER** Quality Tools

WITH fall so close it would be wise to look around and see what new tools you need, because there's always lots of sawing, repairing and altering to do about the place before winter sets in.

Whatever you buy—hand saws, braces, bits, planes, etc.—be sure they bear the famous Keen Kutter trade mark. That mark is your guarantee of quality, durability and moderate prices.

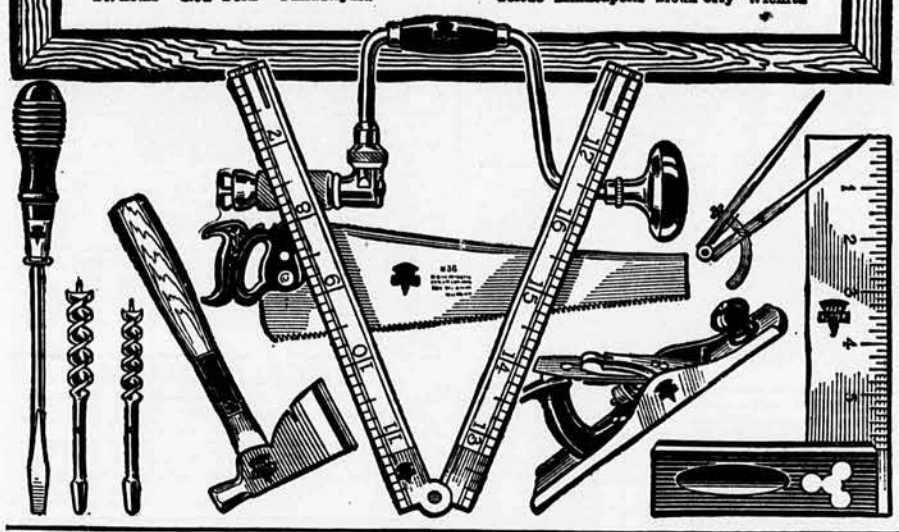
Keen Kutter tools and cutlery of all kinds are noted for their fine edges, sharp points, temper, and straight-grained, firmly-fixed handles.

Every Keen Kutter tool is guaranteed to give the fullest satisfaction or your money back from your dealer.

If not at your dealer's, write us.

"The Recollection of Quality Remains Long After the Price is Forgotten"
Trade Mark Registered. —E. C. SIMMONS.

SIMMONS HARDWARE CO., Inc.
St. Louis New York Philadelphia Toledo Minneapolis Sioux City Wichita



SCHOOLS AND COLLEGES

NSB **Nebraska School of Business**

120 South 14th Street, LINCOLN, NEBRASKA.
A thoroughly modern business training school with the finest school home and equipment in the West. Strong demand for graduates. Easy enrollment plan. Students may work for board. Enter any time and receive personal help in studies. Fine catalogue free. Address, W. M. BRYANT, President.

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26 years of continued success. Topeka Business College. Graduates in every state in the U. S. Most up-to-date school in the West. We get you the position. Write today for catalog.
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10th & Oak Sts., KANSAS CITY, MO.
47th Year. $100,000 College Building has 15 Rooms, including Auditorium and Free Gymnasium. SHORTHAND, TYPEWRITING, BOOK-KEEPING, TELEGRAPHY AND ENGLISH. DAY & NIGHT SCHOOLS. Write to-day for FREE Catalogue "F"

Does Your Salary Grow With Your Needs?
Is there more than enough in your pay envelope to make both ends meet? If not, we can help you. Write for catalog to
PLATT COMMERCIAL COLLEGE
9th and Frederick Ave., St. Joseph, Mo.

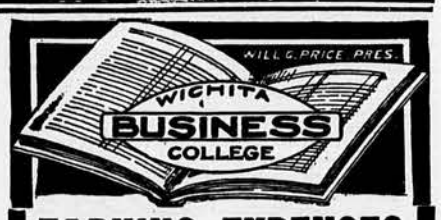
OTTAWA UNIVERSITY
A College with large variety of courses; an Academy with commercial courses; a Conservatory of Music and a Department of Expression.
Expenses very reasonable. Influences wholesome. It emphasizes character. New Bulletin just out.
S. E. PRICE, President, Ottawa, Kan.

Kansas City Business College
Young Women's Christian Association Bldg. 1020-24 McGee Street, Kansas City, Mo.

Finlay Engineering College.
All branches of Engineering; enroll any time; machinery in operation; day and night session. Finlay Bldg., 10th and Indiana, K. C., Mo. Ask for Catalog E. Phones East 295.

NEW IMPROVED SELF-HEATING FLAT IRON—Burns gasoline, alcohol or kerosene. Make $20 a day. Fulton Supply Co., 1681 Fulton, St., Chicago, Ill.

When writing advertisers, please mention Kansas Farmer.



EARNING EXPENSES

Observing years ago that many of our most successful students were those who had to make their own way, we began to devise plans to assist all worthy young people to prepare in our school for successful business careers.

And now, after twelve years of planning and assisting, we are in a position to assure you that if you can and will do your part, "we will see you through." Of course, the choicest money-making and money-saving propositions are not numerous, so it is advisable for you to write us at once telling us fully and frankly how you are situated and what you desire.

Even if you do not intend to enter for a year or two, it will pay you to write us now as we may be able to make you valuable suggestions. We shall judge how business-like you are and how much in earnest you are by your promptness in writing us now—right now. Address,

THE SECRETARY,
WICHITA BUSINESS COLLEGE,
WICHITA, KAN.

A BUSINESS EDUCATION
is a necessity on the modern farm. Light work on the farm this fall affords the
OPPORTUNITY
For you to secure your business training. This is the only ACCREDITED commercial school in your section. Write for catalog. Fall term September 1, or enter any time. Our elegant new home will be ready this fall.
LINCOLN BUSINESS COLLEGE
Second Floor Oliver Bldg.
13 and P Sts. Lincoln, Neb.

Young Man—Would You Accept and wear a fine tailormade suit just for showing it to your friends? Or a slipon raincoat free? Could you use $5 a day for a little spare time? (Perhaps we can give you a steady job at good pay). Then write us at once and get beautiful samples, styles, and an offer so good that you can hardly believe it.
BANNER TAILORING CO., Dept. 493, Chicago

HOME CIRCLE

When boiling clothes place an unpeeled lemon, cut into slices, in boiler with clothes to boil. This will remove all stains and make the clothes white.

Clothes that have become stained with walnut juice should first be saturated with kerosene oil, then washed in warm water. Afterwards boil them and the stains will disappear.

Wood ashes are excellent for cleaning tin articles. Wring cloth out of warm water, dip in the ashes, and with this scour articles; rub off and polish.

A sure and safe rule in making cake is always to sift the flour before measuring, and then again with the baking powder in. Your cake will be fairly sure of being light if this be a never neglected rule.

An excellent way to sew on the snap fasteners for dresses, etc., is to use quite coarse thread, taking a button hole stitch. This makes the fastening quite firm and less likely to pull off.

A substitute for butter or lard to grease cake tins is paraffin. It is said that if this is used the cake seldom sticks to the pan. To use it heat the pan on the stove and rub the paraffin well over the sides and bottom of it.

Hang by a yard length of tape, an extra pair of scissors in a convenient place in the kitchen. Make it a rule that they shall never be removed from their place; then everybody will know where to look for them.

Are you troubled in not being able to see the threads plainly when doing the weekly darning? Try painting one-half of your darning ball white, the other half black; darn white stockings over the black end and black ones over the white end. You will have no more trouble seeing the threads.

The difficulty in removing corks from bottles filled with catsup, etc., may be overcome in the following manner. Before putting in the cork place under it a piece of stout cord, doubled. After it is in place cover with paraffin and set away. When the contents are wanted remove the corks by pulling on the ends of the cord.

Economy in Soap.

Soap has a morality of its own in regard to economy, and every careful housekeeper would do well to respect its conscience. In common with most other necessities soap can be purchased cheaper in bulk than by the bar, but this practice, in addition, permits a still greater economy. With several months' supply on hand the bars can be spread out on the shelves to dry, and, when hardened in this way, each bar will last almost twice as long as it would naturally.

Several uses can be made of the pieces of soap that have become too small to handle comfortably. Put scraps of all kinds into a large-sized bottle, and add ammonia, saltpeter, and warm water in about the proportion of a teaspoonful of each of the former and a quart of the latter to each pint of soap. The result of a mortal enemy to greasy clothing. A mixture especially good for a muddy complexion is made from scraps of toilet soap boiled with an equal quantity of water to which some rolled oats have been added. For washing the hands it is convenient to hang a small white muslin bag in the bathroom into which stray pieces of soap can be dropped. In using, the lather comes through the cloth without any difficulty. —McCall's Magazine.

Boil Drinking Water.

At this season of the year water from ordinary wells (those walled with brick or stone and not cemented) is unusually bad because of the heavy rains. During the winter the surface soil becomes frozen and is very loose and porous, allowing the water to find its way into the well without the filtering it receives when the soil is compact.

The only safeguard against impurities is to boil the water. Boiling will cause all impurities to settle at bottom of pot, and by keeping at boiling point for 20 minutes or longer will kill all bacteria of disease. After water has boiled, it should be poured into an open vessel to cool and settle; cover with cheesecloth or light muslin to protect from dust. Pour water in Mason jars and keep securely covered.

All this, of course, takes time, but you are amply repaid by the assurance that your family is getting pure water. Some object to the flat taste of boiled water. After a time you become accustomed to it just as you get used to the water in different localities.

No. 6215—Girl's Dress. This pretty frock has a little two-piece skirt over which hangs the tunic blouse. This has the drop shoulder and a panel front and back. The neck is cut out square, the closing is placed at the left side of the front panel. Serge, poplin, linen, pique and gingham are appropriate materials for a dress in this style and a patent leather belt may be worn with it. The pattern, 6215, is cut in sizes 6 to 12 years. Medium size requires 3¼ yards of 36-inch material. Price of pattern, 10 cents.

No. 6213—Ladies' Coat. This coat is suitable for plain or fancy materials and may be dressy or serviceable as desired. The lines are plain, and not too full and the coat may be full length or cut off below the knee as preferred. The neck may have the regulation notched coat collar or a long shawl style. The sleeves are finished with a cuff and there is a small pocket. The pattern 6213 is cut in sizes 34 to 42 inches bust measure. Medium size requires 4⅝ yards of 44-inch material for the short length or 5¼ yards of 44-inch for the full length. Price of pattern, 10 cents.

KANSAS STATE UNIVERSITY LIBRARIES

FIELD NOTES

If interested in working Holsteins, write Edmunds & Young, Council Grove, Kan. These gentlemen have a large herd and can make prices that are satisfactory.

W. J. Grist, Ozawkie, Kan., offers bargains in Berkshire pigs of all ages. Mr. Grist has the largest herd in Kansas and his breeding traces direct to imported stock. See his advertisement in this issue.

Howell Bros., Herkimer, Kan., offer choice young Hereford bulls registered and ready for service. Herkimer is in Marshall County near Marysville.

Johnson & Nordstrom, Clay Center, Kan., offer registered Jersey bulls, fine colors and of the best breeding. They will also spare a limited number of females.

Attention is called to the advertisement of the Marshall County Jack and Jennet Breeders' Association of Lewisburg, Tenn. On Friday, October 10, 1913, the Association will hold a breeders' sale of strictly high-class jacks and jennets. The offering will consist of 50 jacks, 20 jennets and 10 colts. For catalog address J. J. Murray, Secretary, Lewisburg, Tenn. Please mention Kansas Farmer when writing.

Attention is called to the card of N. W. Smalley & Sons, Blockton, Iowa. This firm owns one of the best flocks of Shropshire sheep in the West and they are offering a lot of yearling and two-year-old rams by Carpenter 432, a noted prize winner. They have a fine offering and they are pricing them to sell. They are reliable and guarantee description of stock. If you want a high class ram at a reasonable price, write them at once. Please mention Kansas Farmer.

In this issue S. E. Smith changes his ad, offering in addition to some high-quality boars and gilts sired by his prize-winning boar, T. R. Fancy, a splendid brood sow. This sow is taken right out of his breeding herd and is due to farrow October 12. She will make a good one for someone needing high-class Hampshire breeding stock. Look up his ad and write, kindly mentioning Kansas Farmer.

Attention is called to the card of Jacob Sparks, Pattonsburg, Mo., in this issue of Kansas Farmer. Mr. Sparks owns the famous Clover Leaf herd of big-type Polands and one of the best herds in the corn belt. He is offering the bargain of the season in spring boars and gilts. They are extra good ones and were sired by the two great herd boars, Mastodon Wonder and King Prospect and out of Missouri's Prospect, Prince Spotted King sows. Look up his card and get order in early. The offering is first class and the price is right. Please mention Kansas Farmer when writing.

With this issue starts the advertising of Dr. Gilbert Hess. Doctor Hess is one of the most widely known veterinarians in the United States. His scientific stock and poultry preparations, particularly Dr. Hess' Stock Tonic and Dr. Hess' Poultry Pan-a-Ce-a, an instant louse killer, are used by millions of farmers throughout the country. Doctor Hess has written over a quarter of a million prescriptions for the American farmers, and this is a monumental work when one considers that the doctor diagnoses each individual case and prescribes accordingly.

The card of Dr. John Gildow & Sons, Jamesport, Mo., commences in this issue of Kansas Farmer. This firm owns one of the greatest herds of Mammoth Polands in existence, and Plain View herd is famous throughout the corn belt. Their show herd never fails to land a big share of the ribbons at the leading fairs. Their herd boars, Pawnee Chief Hadley, Big Bill Taft, Prince of Wonders and Futurity King, are four of the greatest boars to be found on any breeding farm. They will show at Topeka, Hutchinson, St. Joseph, Sedalia and Kansas City this year. Don't fail to see them. Look up their card. They are offering bargains. Please mention Kansas Farmer when writing.

Everett Hays, Jersey cattle breeder at Hiawatha, Kan., announces a dispersion sale for March 5. Mr. Hays, who was at one time a prominent Shorthorn breeder and showman, has lived at his present location in the suburbs of Hiawatha for a good many years. The Jersey cattle business, together with his dairy business, has made plenty of money for him, but in order to get more land he has traded his present location and will move to Riley County, Kansas, near the State Agricultural College, where he has bought a large tract of grazing land. For this reason his fine herd of working Jerseys is to be dispersed.

Glissman Holsteins.

Henry C. Glissman, the big Holstein breeder and dealer of Omaha, Neb., asks us to claim February 3 and 4 next for his annual sale. Mr. Glissman has enjoyed a great trade during the past twelve months, selling during the shipping season over 50 carloads of cattle. At Mr. Glissman's New York farm located in the best Holstein section of that state his buyer is at all times buying the best to be had. There are at the New York farm just now about 200 head, and half that number at the Omaha farm. Mr. Glissman has about a carload of the best young bulls he has ever had, and will start a card advertising them in a few weeks. Watch for his announcement, and if in a hurry write any time, mentioning Kansas Farmer.

O. A. Homan, owner of the Doyle Park Stock Farm, Peabody, Kan., starts an ad this week offering his flock ram and 50 head of registered Shropshire sheep for sale. This offering consists of 25 rams and 25 ewes. Mr. Homan sends out only first class stock and guarantees them in every respect to be as represented. He carefully crates all his sheep and guarantees their safe arrival no matter how far they may be shipped. He can furnish rams and ewes not related in case you wish to start a small flock. Look up his ad in this issue and kindly mention Kansas Farmer when you write.

American Royal, October 6-11, 1913.

Live stock farmers visit the American Royal Live Stock Show to get in touch with the general trend of the live stock business. The Royal is the clearing house show of the year, where the prize winners of state fairs compete for national prizes. It is also a national show in that breeders and feeders from all over the country are present, talking about the business and learning exactly what the prospects are throughout the breeding world. In this respect the Royal is so important that the up-to-date farmer can hardly afford to stay away. The annual visit to the Royal is as necessary as the occasional trip to market to find out how stock is selling. This year the dry weather and the feed shortage in some districts, and the early marketing of cattle, have made especially vital the necessity of knowing what is going on. The possible shortage in the supply of stock, particularly beef cattle and sheep, naturally suggests the advantage and the timeliness of getting into the pure-bred live stock business. The man who comes to the Royal will get the broadest view of the field and the prospects. And when he has learned what he went to the Royal to find out, he can get what he wants to start a herd with, or build his own herd up with, at the sales, if he decides he needs more breeding animals. The same thing can be said of swine, a department of the Royal that grows immensely as the health of hogs becomes more easily guarded. Light harness and saddle horse owners who have exhibited at previous Royal night shows have been urgent in their requests to T. J. Wornall, manager of the Royal, that no classes be omitted from the programs this year. Mr. Wornall has announced that the night shows, therefore, will not be a bit behind the distinctive and high-class horse show events that the Royal has got a great reputation for putting on. There will also be special features at these shows, and a Saturday matinee of features is being arranged.

Buy Your Repair Tools for Fall Now.

The time is close at hand when you will commence to make repairs around the place. A fence here, a door there, perhaps a broken sash to mend or a shelf to put up. In fact, there are numerous "jobs" for you to do around the place now that harvesting is over. So get your tools now and be prepared. Perhaps you need a hammer, a saw, a plane or a brace and bit. No matter what your need may be, there is a Keen Kutter quality tool to supply it. You can make no mistake when you buy a tool bearing the famous Keen Kutter trade mark, for then you are certain of getting quality and durability at a moderate price. Not only do they excel in quality of material and making, but in their fine edges, sharp points, perfect temper and straight-grained, firmly fixed handles. If any Keen Kutter tool should happen to fall down or you are not thoroughly satisfied with it, take it back to your dealer and he will refund your money or give you another tool, just as you prefer. There will not be any argument about it, for the manufacturers, the Simmons Hardware Co., authorize him to thoroughly satisfy you.

OFFICIAL KANSAS GRADES.

Under provisions of Chapter No. 222, Laws of 1907, the Grain Grading Commission appointed under said act, met pursuant to published call at the Governor's office in Topeka, Kansas, on the 29th day of July, 1913, and established the following grades of grain, to be known as Kansas Grades, to be in effect on and after the 1st day of August, 1913.

A. T. RODGERS, Beloit, Kan.
J. B. NICHOLSON, Topeka, Kan.
A. C. BAILEY, Kinsley, Kan.
Grain Grading Commission.

RULE 1.

Wheat which has been subjected to "scouring," or to some process equivalent thereto, or containing an objectionable amount of rye, shall not be graded higher than No. 3.

RULE 2.
General

All wheat, corn, oats, barley, rye and kafir that is in a heated condition, souring, or too damp to be safe for warehouse, or that is badly damaged, dirty or where different kinds of grain are badly mixed with one another, shall be classed "Sample Grade," and the inspector shall make notation as to the quality and condition; and whenever it is evident that wheat screenings or other dirt has been mixed into wheat, the same shall not be graded better than sample grade.

RULE 3.
Live Weevil.

Wheat containing live weevil shall not be graded, but the inspector shall give the type of wheat and test weight, and note "Live Weevil."

RULE 4.
Plugged Cars.

Inspectors shall in no case make the grade of grain above that of the poorest quality found in any lot of grain inspected, where it has evidently been "plugged" or otherwise improperly loaded for the purpose of deception.

RULE 5.
Reasons for Grading.

All inspectors shall make their reasons for grading below No. 2 fully known by notation on their reports. The weight alone shall not determine the grade.

RULE 6.
The Word "New."

The word "new" shall be inserted in each certificate of inspection of newly harvested wheat until August 1 of each year.

RULE 7.
Reinspections.

All orders for reinspection MUST be in office within the first forty-eight hours following the original inspection, and in no case will grain be reinspected after a lapse of three days from the date of the original inspection.

RULE 8.
Claims.

All claims for damages against the inspectors or weighmasters must be filed in the office before the grain has left the jurisdiction of this department.

RULE 9.
Mixed Wheat.

In case of an appreciable mixture of hard and soft wheat, red and white wheat, durum and spring wheat, with each other, it shall be graded according to quality thereof and the kind of wheat predominating, shall be classed No. 1, 2, 3, and 4 Mixed Wheat, and the inspector shall make notation describing its character.

RULE 10.
Sulphured Grain.

All oats or barley that has been chemically treated with sulphur shall be classed as "Sulphured Grain," and inspectors shall note same on certificates of inspection.

NOTICE.

These official Kansas Grades are given us by the Grain Grading Commission, and will be the basis of all inspections made. Misunderstandings can be avoided by interested parties making themselves familiar with these rules.

GEO. B. ROSS, Chief Inspector.

KANSAS TURKEY WHEAT.

No. 1 Kansas Turkey hard winter wheat of the long berry, dark amber colored type of the Turkey varieties, shall be sound, sweet, dry and clean and shall contain not more than 5 per cent of yellow hard, and weigh not less than sixty-one pounds to the bushel.

No. 2 Kansas Turkey hard winter wheat of the long berry, dark amber colored type of the Turkey varieties, shall be sound, sweet, dry and well cleaned, and shall contain not more than 5 per cent yellow hard, and weigh not less than fifty-nine pounds to the bushel.

No. 3 Kansas Turkey hard winter wheat of the long berry, dark amber colored type of the Turkey varieties, shall be sound, sweet, dry and clean and shall contain not more than 5 per cent yellow hard, and weigh not less than fifty-six pounds to the bushel.

HARD WINTER WHEAT.

No. 1 Dark Hard—Shall be hard winter wheat of the dark type, sound, sweet, dry, plump and clean, and may contain not more than ten per cent yellow hard, and shall weigh not less than sixty-one pounds to the bushel.

No. 2 Dark Hard—Shall be hard winter wheat of the dark type, sound, sweet, dry, and well cleaned, and may contain not more than ten percent yellow hard, and shall weigh not less than fifty-nine pounds to the bushel.

No. 3 Dark Hard—Shall be hard winter wheat of the dark type, sound, sweet, dry but not clean enough for No. 2, and shall contain not more than ten per cent yellow hard, and shall weigh not less than fifty-six pounds to the bushel.

No. 4 Dark Hard—Shall be hard winter wheat of the dark type, tough, sprouted, or from other causes so badly damaged as to render it unfit for No. 3, and shall contain not more than ten per cent yellow hard.

RULE GOVERNING DARK AND YELLOW HARD WHEAT.

Dark hard wheat and yellow hard wheat mixed more than ten per cent shall grade the wheat predominating—dark and yellow or yellow and dark—and inspection certificate issued accordingly; and the other specifications for each of these grades shall be the same as for Kansas hard winter wheat of the same grade.

HARD WINTER WHEAT.

No. 1 Yellow Hard—Shall be hard winter wheat of the yellow type, sound, sweet, dry, plump and clean, and shall weigh not less than sixty-one pounds to the bushel.

No. 2 Yellow Hard—Shall be hard winter wheat of the yellow type, sound, sweet, dry and well cleaned, and shall weigh not less then fifty-nine pounds to the bushel.

No. 3 Yellow Hard—Shall be hard winter wheat of the yellow type, sound, sweet, dry; but not clean enough for No. 2, and shall weigh not less than fifty-six pounds to the bushel.

No. 4 Yellow Hard—Shall be hard winter wheat of the yellow type, tough, sprouted, or from any cause so badly damaged as to render it unfit for No. 3 hard.

RED WINTER WHEAT.

No. 1 Red Winter—Shall be red winter wheat, sound, sweet, dry, plump and clean, and shall weigh not less than sixty pounds to the bushel.

No. 2 Red Winter—Shall be sound, sweet, dry and well cleaned; may contain not more than eight per cent of hard winter or white winter wheat, or both, and weigh not less than fifty-eight pounds to the bushel.

No. 3 Red Winter—Shall be sound, sweet, dry, may be some bleached, but not clean enough for No. 2; may contain not more than eight per cent of hard winter or white winter wheat, or both, and shall weigh not less than fifty-five pounds to the bushel.

No. 4 Red Winter—May be tough, skinburned or dirty; may contain not more than eight per cent of hard winter or white winter wheat, or both, must be cool, and shall weigh not less than fifty pounds to the bushel.

WHITE WINTER WHEAT.

No. 1 White Winter Wheat—Shall be sound, sweet, dry, plump and clean, and shall weigh not less than fifty-eight pounds to the bushel.

No. 2 White Winter Wheat—Shall be sweet, sound, dry and clean, and not contain more than eight per cent of red winter or hard winter wheat, and shall weigh not less than fifty-six pounds to the bushel.

No. 3 White Winter Wheat—Shall be sound, sweet, dry; may be some bleached, but not clean or plump enough for No. 2, and contain not more than ten per cent of red winter or hard winter wheat, and shall weigh not less than fifty-three pounds to the bushel.

No. 4 White Winter Wheat—Shall include tough, musty, dirty white winter wheat, not to contain more than ten per cent of red winter or hard winter wheat, and shall weigh not less than fifty pounds to the bushel.

NORTHERN HARD SPRING WHEAT.

No. 1 Northern Hard Spring—Must be northern grown, spring wheat, sound, sweet, dry and clean, more than fifty per cent of the hard varieties, and weigh not less than fifty-seven pounds to the bushel.

No. 2 Northern Hard Spring—Must be northern grown spring wheat, not clean, sweet or sound enough for No. 1, more than fifty per cent of the hard varieties, and weigh not less than fifty-six pounds to the bushel.

No. 3 Northern Hard Spring—Must be northern grown spring wheat of inferior quality, more than fifty per cent of the hard varieties, and weigh not less than fifty-four pounds to the bushel.

No. 4 Northern Hard Spring—Shall include all inferior, shrunken, northern grown spring wheat that is badly damaged, more than fifty per cent of the hard varieties, and weigh not less than forty-nine pounds to the bushel.

SPRING WHEAT.

No. 1 Dark Spring—Shall be spring wheat of the dark variety, sound, sweet, dry, plump and clean, and shall weigh not less than fifty-nine pounds to the bushel.

No. 2 Dark Spring—Shall be spring wheat of the dark variety, sound, sweet, dry, clean and of good milling quality, and shall weigh not less than fifty-seven pounds to the bushel.

No. 3. Dark Spring—Shall be spring wheat of the dark variety, sweet, but may be some bleached and shrunken, and shall not weigh less than fifty-five pounds to the bushel.

No. 4 Dark Spring—Shall include spring wheat of the dark variety, tough, musty, sprouted or that which from any cause is rendered unfit for No. 3, and shall weigh not less than fifty pounds to the bushel.

WHITE SPRING WHEAT.

The grades of Nos. 1, 2, 3 and 4 White Spring Wheat shall correspond with the grades Nos. 1, 2, 3 and 4 dark spring wheat, except they shall be of the white variety.

DURUM (MARCARONI) WHEAT.

No. 1 Durum—Shall be bright, sound, sweet, dry and clean durum wheat, and shall weigh not less than fifty-eight pounds to the bushel.

No. 2 Durum—Shall be sound, sweet, dry and clean durum wheat, and shall weigh not less than fifty-eight pounds to the bushel.

No. 3 Durum shall be dry, sweet, may be some bleached, or from any cause unfit for No. 2 and shall weigh not less than fifty-five pounds to the bushel.

No. 4 Durum—Shall include durum wheat that is tough, bleached, or shrunken, and shall weigh not less than fifty pounds to the bushel.

PACIFIC COAST RED AND WHITE WHEAT.

No. 2. Pacific Coast Wheat—Shall be dry, sound, clean; may be tainted with smut and alkali, and weigh not less than fifty-eight pounds to the bushel.

No. 3 Pacific Coast Wheat—Shall include all other Pacific Coast wheat, may be smutty or musty, or for any reason unfit for flouring purposes, and weigh not less than fifty-four pounds to the bushel.

(Note.—In case of a mixture of red or White Pacific Coast Wheat with our home-grown wheat, such mixture shall be graded Pacific Coast Wheat.)

RYE.

No. 1 Rye—Shall be plump, sound, dry and free from other grain, and well cleaned, and shall weigh fifty-six pounds per bushel.

No. 2 Rye—Shall be plump, sound and clean, and shall weigh fifty-four pounds per bushel.

No. 3 Rye—May be shrunken, bleached, and not clean enough for No. 2, and shall weigh not less than fifty-two pounds per bushel.

No. 4 Rye—To include all tough, musty, dirty rye, unfit for No. 3, and shall weigh not less than fifty pounds per bushel.

OATS.

No. 1 White Oats—Shall be pure white oats, dry, sweet, sound, clean and free from other grain and weigh not less than thirty-two pounds per bushel.

No. 2 White Oats—Shall be seven-eights white, sound, dry, and contain not more than one per cent each of dirt and foreign matter, or three per cent of other grain, and weigh not less than thirty pounds per bushel.

No. 3 White Oats—Shall be seven-eights white, sound, dry, and not more than three per cent of dirt or foreign matter nor five per cent of other grain.

No. 4 White Oats—Shall be seven-eights white, tough, musty or from any cause unfit for No. 3.

RED OATS.

The grades of Nos. 1, 2, 3 and 4 Red Oats shall correspond with the grades of Nos. 1, 2, 3 and 4 White Oats, except that they shall be of the red variety.

MIXED OATS.

No. 1 Mixed Oats—Shall be mixed oats of various colors, dry, sound, sweet, clean, and free from other grain, and weigh not less than thirty-two pounds per bushel.

No. 2 Mixed Oats—Shall be mixed oats of various colors, dry, sound, sweet, and not more than two per cent of dirt or foreign matter, or three per cent of other grain, and weigh twenty-eight pounds per bushel.

No. 3 Mixed Oats shall be mixed oats of various colors, sweet, and shall not contain more than three per cent of dirt or foreign matter or five per cent of other grain, and weigh twenty-four pounds per bushel.

No. 4 Mixed Oats—Shall be mixed oats, tough, dirty, or from any cause unfit for No. 3.

STANDARD WHITE OATS.

Shall be seven-eights white, sound, sweet, and shall not contain more than three per cent of dirt or foreign matter or five per cent of other grain.

BARLEY.

No. 1 Barley—Shall be sound, bright, sweet, clean and free from other grain, and weigh forty-eight pounds per bushel.

No. 2 Barley—Shall be sound, dry and of good color, and weigh forty-six pounds per bushel.

No. 3 Barley—Shall include shrunken, stained, dry barley, unfit to grade No. 2, and weigh forty-four pounds per bushel.

No. 4 Barley—Shall include tough, musty, dirty barley.

SPELTZ.

No. 1 Speltz—Shall be bright, sound, dry and free from other grain.

No. 2 Speltz—Shall be sound and dry, and not contain more than ten per cent of other grain.

No. 3 Speltz—Shall be dry, not sound enough for No. 2, and contain not more than ten per cent of other grain.

No. 4 Speltz—To include all speltz that is dirty, musty or tough.

CORN.

The following maximum limits shall govern all inspection and grading of corn:

GRADE—	Percentage of moisture	Percentage of exclusive burned	Percentage of rotten, dirt and broken grains
No. 1	15	1	1
No. 2	16	5	3
No. 3	19	10	4
No. 4	22	..	..

WHITE CORN.

No. 1 White Corn—Shall be pure, white corn and sweet.

No. 2 White Corn—Shall be fifteen-sixteenths white, and sweet.

No. 3 White Corn—Shall be fifteen-sixteenths white, and sweet.

No. 4 White Corn—Shall be fifteen- sixteenths white, but shall include tough, musty and damaged corn.

YELLOW CORN.

No. 1 Yellow Corn—Shall be pure yellow corn, and sweet.

No. 2 Yellow Corn—Shall be seven-eights yellow, and sweet.

No. 3 Yellow Corn—Shall be seven-eights yellow, and sweet.

No. 4 Yellow Corn—Shall be seven-eights yellow, but shall include tough, damaged or musty corn.

MIXED CORN.

No. 1 Mixed Corn—Shall be corn of various colors, and sweet.

No. 2 Mixed Corn—Shall be corn of various colors, and sweet.

No. 3 Mixed Corn—Shall be corn of various colors, and sweet.

No. 4 Mixed Corn—Shall be corn of various colors, but shall include tough, damaged or musty corn.

KAFIR CORN.

No. 1 White Kafir Corn—Shall be pure white, of choice quality, sound, dry and well cleaned.

No. 2 White Kafir Corn—Shall be seven-eights white, sound, dry and clean.

No. 3 White Kafir Corn—Shall be seven-eights white, not dry or clean or sound enough for No. 2.

No. 4 White Kafir Corn—Shall be seven-eights white, tough, damaged, musty or dirty.

RED KAFIR CORN.

The grades of Nos. 1, 2, 3 and 4 Red Kafir Corn shall correspond with grades Nos. 1, 2, 3 and 4 White Kafir Corn, except that they shall be of the red variety.

MIXED KAFIR CORN.

No. 1 Mixed Kafir Corn—Shall be mixed Kafir corn of choice quality, sound, dry and well cleaned.

No. 2 Mixed Kafir Corn—Shall be mixed Kafir corn, sound, dry and clean.

No. 3 Mixed Kafir Corn—Shall be mixed Kafir corn, not clean, dry or sound enough for No. 2.

No. 4 Mixed Kafir Corn—Shall be mixed Kafir corn, tough, musty or dirty.

MILO MAIZE.

No. 1 Milo Maize—Shall be milo maize of choice quality, sound, dry and well cleaned.

No. 2 Milo Maize—Shall be milo maize that is sound, dry and clean.

No. 3 Milo Maize—Shall be milo maize that is not dry or sound enough for No. 2.

No. 4 Milo Maize—Shall include all milo maize that is tough, musty or dirty.

Sorghum seed to be under the same general rule as Kafir.

The foregoing are the rules adopted by the Kansas State Grain Inspection Department establishing a proper number and standard of grades for the inspection of grain. The same to take effect on and after August 1, 1913, in lieu of all rules on the same subject heretofore existing.

GEO. B. ROSS, Chief Inspector.
Topeka, Kansas.

JERSEY CATTLE.

Register of Merit Jersesy

The only herd in Kansas making and keeping official records. Eighty head to select from. Cows in milk, bred heifers, heifer calves, and the finest lot of young bulls ever on the farm. All ages. Six or eight now ready for service out of cows with official tests up to 512 pounds of butter with first calf, sons of Imp. Oakland Sultan, Gambos Knight, and a son of Golden Fern's Lad. Tuberculin tested and fully guaranteed. **R. J. LINSCOTT, Holton, Kansas.**

Bank's Farm Jerseys

Quality with milk and butter records. One of the best sons of CHAMPION FLYING FOX, imported, at head of herd. Stock for sale.
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Jersey Bull Three weeks old; drinks milk; registered and choice individual. Sired by Guinon's Eminent out of a Brown Bessie dam. Will make great bull. Must be sold right away. Low price.
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One of the strongest official record herds in the west. For sale, 10 choice young bulls, sired by Imp. "Duke's Raleigh," and other good bulls Out of cows now undergoing or having authenticated tests. Also, 25 females of different ages. **H. C. YOUNG, Lincoln, Nebraska.**

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Headed by Sultan of Comfortholme, by Oakland Sultan. Cows of Golden Lad and Tormentor breeding. Choicely bred bull calves at bed rock prices. **E. L. M. BENFER, Leona, Doniphan Co., Kansas.**

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Females of all ages. Solid colors and bred along fashionable lines. The cows pay their board twice every day. "Blue Boys Baron" 99918 heads herd. About 20 head of cows in milk.
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ARCACIA PRINCE X 8079-308159
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Several bull calves sired by Roan Choice (junior champion of 1911), also a few young cows and heifers from the greatest show and prize winning herd in Kansas, priced reasonable. Come and see my herd.
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The home of registered Hampshire Sheep and Barred Plymouth Rock Chickens. Stock for sale at all times. Twenty choice spring rams for sale. Five miles southwest of Waldo and 14 miles from Russell. Visitors welcome.
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50 Shropshires For Sale
25 rams, 25 ewes, and our flock ram. All registered. Cut prices. They must go.
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Twenty-five two-year-old registered Shropshire rams for sale. They are good ones.
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Registered yearling and two-year-old rams by a son of Carpenter 432, winner of Pettifer cup, 1906. Choice breeding and quality, priced right.
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Bull calves for sale. Prices right. Herd headed by Prince, one of the best sons of Actor.
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Coburn Herd of Red Polled Cattle and Percheron Horses.
25 extra good young bulls and 7 first class young stallions for sale at bargain prices. Also young cows and heifers.
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In order to reduce the size of herd we offer choice registered cows of large frame and splendid milkers at very low prices considering quality.
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Ruby Financial Count 87211, a grandson of Financial King, dam a Register of Merit granddaughter of Financial King; milk record of 56 pounds per day.
Herd founded on Finance, Interest and Gamboge Knight families. Cows milk, as three-year-olds, 40 to 56 pounds per day. Every cow in herd on test. No dairyman ever considered a cow beautiful unless she is a heavy producer. Constitution first, production second, beauty third.
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Cows and Heifers
THREE $500 Bargain Lots
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Six Pure Scotch Bulls
They are royally bred; sired by show bulls and out of our best Scotch cows. Four beautiful roans, two reds, 10 to 15 months old. Priced low for quick sale.
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Fall and spring gilts bred or open sired by Model Chief by Chief's Perfection, he by Ohio Chief. Write for prices.
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Oldest in the West. Seventy spring pigs, both sexes, mostly by my herd boars, Model Topnotcher and Oakland Lad, out of richly bred dams. Also fall gilts. Everything guaranteed. **N. D. Simpson, Bellaire, Kan.**

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March and April pigs, $15 each, pairs and trios not related. Large, growthy, sired by Goldfinch Jr. 2d, dam by Goldie S. Write at once or come and see my herd.
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20 yearling gilts bred for Sept. and Oct. farrow, sired by my three herd boars. Joe Cannon, Fountain Valley Prize and New Lebanon Corker. $35 for choice. Want to sell quick. 20 spring boars priced reasonable.
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Choice pigs, 10 to 16 weeks old, either sex. Sired by Robin Hood, Premier 2d, or Adam, a son of Rival's Lord Premier. Nothing but the very choicest specimens shipped. Price, registered, crated, F. O. B. here, one, $20; two, $35; three, $50.
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POLAND CHINAS

POLAND CHINA CHAMPION SALE

At Hutchinson, Kan., Sept. 18, At Fair Grounds

A letter from Lee Stanford stating he will be at the State Fair at Hutchinson with his hogs and will sell at public auction at his pens, his herd boar Smuggler and his show litter by him, consisting of three boars and two gilts. Smuggler was the Grand Champion at the Kansas State Fair two years in succession, beating several Grand Champions from other states. He now weighs nearly 900 pounds and is three years old. I want all lovers of Poland Chinas to see Smuggler and see his pigs. He is probably one of the best breeding boars living today. I will sell on Thursday, September 18, at 10:30 A. M. If you cannot be there send a bid to O. W. Devine of Kansas Farmer, care Supt. Swine Department, State Fair Grounds, Hutchinson, Kansas.

LEE STANFORD, Owner, Lyons, Kansas

EVERGREEN HERD POLANDS

Expect to be at Kansas State Fair, Hutchinson, September 13 to 20, and St. Joseph, Mo., Inter-State the following week. Those wanting herd boars of the size and quality kind should see our wide-backed short-faced monsters of great bone and quality. Most approved breeding and combining the blood of the greatest prize winners of recent years. One 2-year-old, a line-bred Wonder; one yearling by Great Look 47659, the great sire of big-type winners; one 600-pound senior pig by Capital 53854, the great champion of 1909, and a number of early spring boars of same line breeding.

E. E. CARVER & SON, Guilford, Mo.

Long King's Equal and A Wonder Jumbo

One hundred and seventy-five pigs sired by the above-named boars and out of A Wonder, Long King's Equal, and my famous Jumbo sows. We are headquarters for herd boars. Will also sell a few bred sows. Breeders will find the largest and best big-type Polands in this herd. Come and see them and you will be convinced. If unable to come, write me and I will do my best to please you. "Satisfied Customers" is my motto. All go at private sale. No fall sale.

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35 Immune Poland China Spring Boars

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Big bone, big type, high-quality Polands. A few choice spring boars and gilts sired by Mastodon Wonder and King Prospect. They go at $20 per head if taken at once. Get your order in early. **JACOB SPARKS, PATTONSBURG, MO.**

GILDOW'S MAMMOTH POLAND CHINAS.

Special Offering for the Next Sixty Days: Fifty big spring boars, fifty big stretchy spring gilts and yearling and aged sows, either bred or open. These are all the big, stretchy kind, combining size with quality. Don't fail to see our show herd at **Topeka, Hutchinson, St. Joseph, Sedalia,** and the **American Royal.** Write us today. We are offering bargains. **DR. JOHN GILDOW & SONS, JAMESPORT, MISSOURI.**

BIG POLAND BOARS

TEN FALL BOARS, ready for service. Price, $25 and $30. Good ones, sired by Wedd's Long King, Wedd's Expansion and Big Logan Ex. Order quick. These bargains won't last.

GEO. WEDD & SON, Spring Hill, Kan.

SAVE FIFTEEN DOLLARS

I have some magnificent old original big-boned Spotted Poland China boar pigs, of March farrow, for sale at $20.00. These are absolutely equal in every respect to what other breeders are asking $35 for. I also have gilts of all ages, bred or open, and a few sows bred for early fall litters. Write your wants.

THE ENNIS FARM, Horine Station, Mo.
(30 Miles South of St. Louis.)

ERHART BIG TYPE POLAND CHINAS

50 head of strictly big type Poland China pigs for sale at reduced prices for 30 days. Herd header and herd sows prospects. Sired by Major B. Hadley the Grand Champion, American Royal, 1911. Young Hadley—Giant Wonder—by A Wonder. Write today. We want to sell quick.

A. J. ERHART & SON, Beeler, Kansas.

POLAND CHINA GILTS FOR SALE.

20 - Yearling gilts, bred. Sired by a son of A Wonder and bred to a son of Big Orange. March pigs in pairs and trios not akin, priced to sell.

THURSTON & WOOD, Elmdale, Kan.

TWO HERD BOARS FOR SALE—One 3-year-old, a grandson of Big Hadley; one fall yearling sired by Mastiff by King Mastiff. Priced to sell. **Geo. Haas, Lyons, Kan.**

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One extra yearling red Scotch bull that we intended to show, sired by Whirlwind by Captain Archer, he is out of one of our best cows, a daughter of Barmpton Knight. This young bull is good enough to head any herd. We also offer our yearling herd boar A's Big Orange, and 25 young boars.

S. B. AMCOATS, Clay Center, Kansas.

BIG-TYPE POLAND CHINA PIGS

Both sexes, February and March farrow. Fifty-five head, tops from 100 head, sired by Ross Hadley and Hadley C, out of extra big sows of Expansive, Price We Know, King Mastodon and Mogul breeding. Can furnish pairs not related. Well grown out on alfalfa pasture and of the best big-type breeding. **JOHN COLEMAN, Denison, Jackson County, Kansas.**

225 REGISTERED POLAND CHINAS FOR SALE.

Thirty-two sows bred for summer and fall; 20 fall gilts, bred or open; six fall boars, tops from fall crop; 135 spring pigs. Both big and medium type. Sell at reasonable prices with big discounts on several head. **J. D. WILLFOUNG, Zeandale, Kan.** Ten miles east of Manhattan.

BIG POLAND CHINA SPRING PIGS

Sired by Peter Mouw boars. Here is where you can get big-type pigs at a low price. Never before was there such a bargain offered. Write me your wants. **Ben Rademacher, Box 13, Mulberry Grove, Illinois.**

44 Spring Pigs - 2 December Pigs

At cut prices. In pairs and trios. By Model Monday and other great boars, out of sows of the best blood lines.

O. R. STRAUSS, Route 1, Milford, Kansas.

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FOR BLOODED AND PEDIGREED STOCK

This Company has a Specific Policy that is more liberal and costs you less money than that charged by outside companies.

This Company was incorporated by about 100 of the leading farmers and stock breeders of the State for their own protection and has complied with the State Laws of Kansas and is licensed by the Insurance Department.

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Higgins' Dispersion Sale of

JERSEY CATTLE

I have sold my farm and must sell my entire Jersey herd at once. Thirty-five head of richly-bred choice individuals to go at private treaty. Thirty-one females, mostly yearling and two-year-old heifers, bred to "Noble Peer of Oaklands 95499," winner at five State Fairs and two Dairy Shows, and probably the greatest son of the $15,000 "Noble of Oaklands P." Two bull calves by Jolly Royal Sultan, the greatest son of Viola's Golden Jolly.

This is strictly a choice offering, purchased for my own use. Will sell entire herd, or in pairs, trios or single animals to suit purchaser.

DUROC JERSEY HOGS—Forty big boars ready to go.

JOHN T. HIGGINS, ABILENE, KANSAS

Jack and Jennet Sale, -- Friday, Oct. 10, 1913

LEWISBURG, MARSHALL COUNTY, TENNESSEE
A BREEDERS' SALE OF STRICTLY HIGH-CLASS JACK STOCK.
FIFTY JACKS — TWENTY JENNETS — TEN COLTS.
MARSHALL COUNTY JACK AND JENNET BREEDERS' ASSOCIATION.
Address J. J. MURRAY, Secretary.

CRYSTAL HERD O. I. C.'s

Herd headed by Frost's Buster 29745 by Thea 30442. Extra lot of spring boars and gilts now ready to ship. Have some outstanding herd header prospects, also outstanding gilts. Size and high quality combined. Description of stock guaranteed. Priced right. **DAN WILCOX, R. F. D. 2, Cameron, Mo.**

O. I. C's AT YOUR STATE FAIR

We will exhibit at Topeka and Hutchinson three extra good herd headers, two yearlings and one fall boar, also samples of our spring boars and gilts. Prices reasonable. Come and see them. **S. D. & B. H. FROST, KINGSTON, MO.**

POLAND CHINAS

SPRING PIGS, 100 DAYS OLD.

Forty big-type Poland pigs, sired by Big Four Wonder, grandson of A Wonder, and Orange Model 2d by Big Orange. Will sell them until they are 100 days old for $25 each. Pairs, not related, $40. First choice with every sale. Inspection invited.

L. L. CLARK, Meriden, Kansas.

STRYKER BROTHERS' POLAND CHINAS.

Choice boars and gilts from our show herd. Can sell all kinds of breeding stock at reasonable prices. Also Hereford cattle and standard-bred horses for sale.

STRYKER BROS., Fredonia, Kan.

TEN BIG FALL POLAND BOARS.

Four by Mogul's Monarch. Two by Long King, son of Long King's Equal. Two by Gephart.

Extra good individuals at $25 each.

J. H. HARTER, Westmoreland, Kansas.

Clinton's Herd of Big-Type Polands.

Bred sows, cholera immune, most popular big-type breeding. Bred to farrow August and September. Priced to sell. Write at once as I have only a few for sale.

P. M. ANDERSON, Lathrop, Mo.

BUY EARLY AND SAVE EXPRESS.

Fifty big kind Poland China pigs, either sex, sired by Ott's Big Orange, Big Ben and other great boars. Booking orders now to ship when old enough to wean. Pairs not related.

J. F. FOLEY, Oronoque, Norton Co., Kansas.

ALBRIGHT TYPE POLANDS FOR SALE.

Forty head of choice fall boars and fall gilts, bred or open, and 65 spring pigs, all sired by Cavett's Mastiff, one of the best boars now in service. Only the best of individuals offered. Inspection invited.

A. L. ALBRIGHT, Waterville, Kansas.

CLEMETSON POLAND CHINAS

Headed by Major Zim by Major B sows carrying the blood and mostly daughters of Gold Metal and Model Look by Grand Look. Choice spring pigs, express prepaid, $20 each until further notice.

O. B. CLEMETSON, Holton, Kansas.

Gritter's Surprise Fall Boars For Sale.

Two good ones sired by Gritter's Surprise by Long Surprise. Dam of these boars is a Lady Wonder sow of the large Iowa type. They are immune from cholera and priced right. Also a few bred gilts for sale.

A. J. SWINGLE, Leonardville, Kan.

POLAND CHINAS. Spring pigs, one yearling boar Meddler breeding. All immune. **Sable & White Stock Farm, Seward, Kan.**

MELBOURNE HERD POLAND CHINAS.

Headed by Melbourne Jumbo, one of the large smooth sires of the breed, mated with the best of big-type sows, among them daughters of What's Ex, Big Prospect, Dorr's Expansion 1st, and Union Leader. Stock for sale.

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Hildwein's Big Type Polands

Herd headed by Gold Standard Junior and Wonder Ex. Herd sows representing best blood lines. Fall sale October 29.

WALTER HILDWEIN, Fairview, Kan.

POLAND CHINA BOARS

20 Extra Good Fall Boars, ready for service, sired by Big Logan Ex. and Missouri Metal, out of my best sows. Prices reasonable. Write me.

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GREAT SON OF GOLD METAL

Heads our herd, mated with Utility, dam of the noted $580 litter; Collossua, O. K. Price and Gold Metal. Fine lot of pigs out of these sows, most of them sired by Melbourne Jumbo. Inspection invited.

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Headed by King Hadley 3d and Kansas Wonder, mated with daughters of Old Expansion, What's Ex, and Grand Look Jr. Stock for sale.

E. E. MERTEN, Clay Center, Kansas.

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Either sex. Good individuals. $15 each. Pairs also. **C. S. Carruthers, Salina, Kan.**

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WOLFE'S O. I. C. SWINE.

Large, prolific kind, March and April boars. Gilts bred or open. Fall pigs. Prices low. Pedigrees free. Write your wants.

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Large, smooth and prolific. Our stock and prices are right. Write us your wants. Satisfaction guaranteed.

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O. I. C. PIGS, $15 A PAIR.
H. W. HAYNES, MERIDEN, KAN.

MULE FOOT HOGS

350 big-type Mulefoot hogs of all ages for sale, from champion herd of America.

JOHN DUNLAP, Williamsport, Ohio.

TOO LATE TO CLASSIFY.

WRITE
DR. E. G. L. HARBOUR, BALDWIN, KAN.
For prices on
REGISTERED DUROC JERSEY SHOATS
Either sex. Also a few Poland Chinas. These hogs are going at dry weather prices. Write today.

FOR SALE—Polled Durham Bull, Duke of Lookout 6765, Shorthorn registry 305724. Dark red, weight 2,000 lbs., six years old, of good disposition. Gets good calves, mostly polled. Bred by D. C. VanNice of Richland, Kan. Sold for want of use. Priced right. **PETER JOHNSON, Hays, Kan.**

ONE 4-YEAR-OLD GUERNSEY MILK COW, JUST FRESH TWO WEEKS. CAN NOT REGISTER. FINE FAMILY COW. GOOD MILKER. TESTED AND GUARANTEED A GOOD ONE. PRICE, $75. THIS AD WILL ONLY APPEAR TWICE. DR. E. G. L. HARBOUR, BALDWIN, KAN.

FAULKNER'S FAMOUS SPOTTED POLANDS

"LEADERS OF THEIR KIND"

One hundred and fifty May and June pigs now ready to ship. Special prices: Single pig, either sex, $35; pair, not akin, $65; trio, not akin, $90. They will be sold in the next thirty days.

START RIGHT WITH OUR FOREFATHERS' KIND. Mail your check with first letter.

H. L. FAULKNER, Owner, Highview Breeding Farm, Jamesport, Mo.

OTT'S BIG ORANGE OFFERING

Ott's Big Orange at 12 months old, weight 550 pounds. Individuality you won't fault. The kind we breed, feed and sell.

The kind $25 to $50 will bring to you. February to April farrow. These pigs will range in weight from 90 to 200 pounds. **J. O. JAMES, BRADDYVILLE, IOWA.**

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OUR 1914 model was announced last month. Thirty days after this announcement we had on hand immediate shipping orders for more than 10,000 cars. This represents a business of over $10,000,000.00. Such an instantaneous demand can only be attributed to the sheer force of superior merit and greater value.

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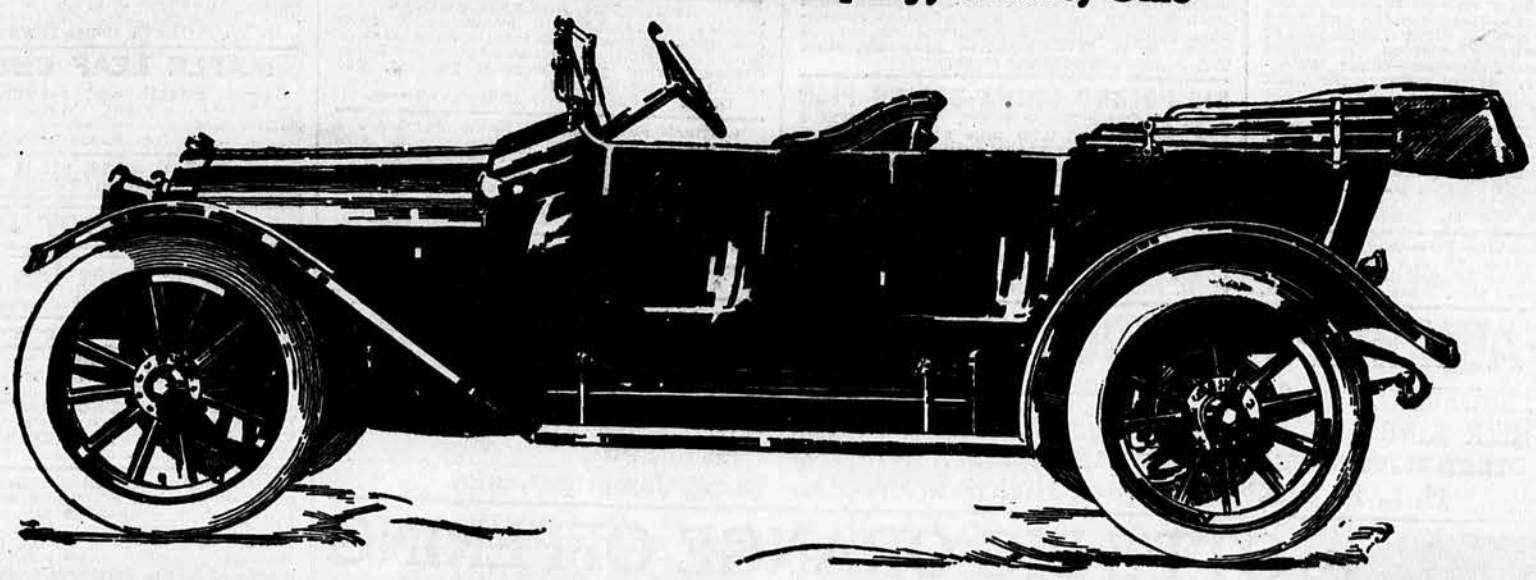
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