

KANSAS FARMER

For the improvement

of the Farm and Home

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The same old wish in the same old way, uttered over and over each Christmas day as the bells chime out in the dawning gray, sweet-toned with the angel story. The same old wish, yet it's ever new, the same old wish that is always true—Peace and Plenty and Joy to you, and a gleam of the angel glory.

Friendship, love and the wealth of years, the hopes that live and the light that cheers, the faith that banishes doubts and fears, the clear and radiant vision, all golden thoughts and resplendent deeds, the heart that throbs to a brother's needs, and strength to walk in the path that leads to the fields of life Elysian.

Oh, the same old wish is as deep and wide as the ocean, as broad as the sky, as high as the stars, as rich as the gifts that still abide, the sweetest of all, the love that binds the world in its clear notes fall as it floats along the air, the same old wish, the same old wish, "Will to All"—on Christmas day in the morning.



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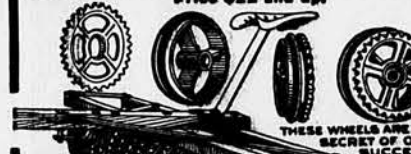
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KAFIR DEMAND ON INCREASE

The Markets on Kafir, Cottonseed, Cattle and Sheep By Kansas Farmer's Correspondent

KAFIR is selling around \$1.60 per hundred on the Kansas City market; a year ago it was worth 82 to 82 cents. The price, the highest in the history of the Kansas City grain trade, is practically double that of a year ago. Corn, on the other hand, is 40 per cent higher.

Despite the high prices offerings are commanding, receipts of kafir at Kansas City are extremely light. So far this month only 71,500 bushels have been received, compared with 302,500 for the corresponding time last year. In October and November kafir receipts at Kansas City were 48,400 bushels; in the same months in 1912, 548,900 bushels; in October and November, 1911, 324,900 bushels. In the year 1912 Kansas City kafir receipts were 2,733,500 bushels; in 1911, 1,346,428 bushels; in 1910, 850,300 bushels.

As the Southwest—Kansas particularly—is practically the only American producer of kafir, and as the unprecedented drought reduced the yield and the output of other feeds in this section, the movement marketward is limited. In the case of corn, the situation is different, as states north and east of Kansas produced fair yields and are sending some of their supplies to Kansas City. This explains, to a degree, why kafir shows a relatively greater advance in prices than corn. Another factor in the advance, which has been increasing in importance the last few years, is the growing appreciation of the true value of kafir, which is even yet not fully understood. With the wider appreciation of the comparatively new forage has come a broadened demand. Dealers who make a specialty of the feed, as well as agronomists, confidently predict a far greater demand in future years.

In addition to the domestic commercial trade, an export movement of kafir has already been started via the gulf ports, and, according to some southwestern dealers, it may be developed to large proportions. No business has been done this fall with European countries, but exports were made last year to Liverpool, Antwerp and Hamburg. The first shipment of kafir of importance was made from Galveston, Texas, to Liverpool, in 1911.

Feed dealers and manufacturers in Kansas City who have developed a trade in kafir feeds are experiencing difficulty in filling their needs. This is especially true of poultry feed makers, who report the inquiry for kafir poultry feeds as unaffected to any marked extent by the high prices. Poultry feed manufacturers are taking all of the supplies coming to Kansas City, while one manufacturer recently sent a representative to Butler County, Kansas, the leading producer, to buy the feed. Kafir is prized highly as a chicken feed. It is reported that some patent poultry feed makers are using milo and other products as a substitute because of the inadequate supply of kafir. Milo, however, is also in good demand and light supply, and selling only at two to three cents under kafir.

Even in times of liberal yields of kafir the principal commercial demand to date has been from poultry feed manufacturers, including those of the East and of California. Feeders of live stock have been slow to take the feed at half the present prices. Dealers at Kansas City, however, are confident the call for the feed from stockmen will increase all over the United States.

Dealers at Kansas City, in interviews with the KANSAS FARMER market correspondent, expressed the opinion that kafir would at least continue to sell at present high prices, if not advance. Larger supplies are not expected in the near future. Lower temperatures, which would strengthen feed markets, would have a tendency to send kafir prices up. Stocks in Kansas City elevators aggregate 25,000 bushels, compared with 4,200 a year ago, which reflects a bullish view on the part of dealers who are apparently holding for better prices.

RELATIVE VALUE COTTONSEED MEAL AND CAKE

Nature seems desirous of atoning for her misdeeds in the past summer to producers of feedstuffs in the Southwest. She has been giving this and other sections of the country such mild weather that great economy has been possible in the use of all classes of live stock feeds. Besides, the abnormal weather has made excellent wheat pastures and provided much good grass. Down around Wichita there is so much wheat pasture that growers are renting fields out to stock-

men at \$4 per steer per month. One Greenwood County stockman has 200 head on wheat pastures near Wichita at this rental. Shipments of huffers and steers have been received at Kansas City from wheat districts in sufficient flesh to go to packers, the animals having taken on weight from wheat pastures.

To sellers of feed the mild weather has been disappointing. It has been responsible for the recent weakness in corn, hay and cottonseed feeds. Millers of flour in Kansas believe, however, that prices will advance with the first long spell of cold weather, and are holding their bran and shorts for a higher market.

As Kansas is in need of concentrates this winter, its farmers and feeders are deeply interested in the market for cottonseed meal and cottonseed cake. Present prices of these feeds are \$1 per ton lower than the high point of this season and may decline further if cold weather does not set in soon. On the other hand, a prolonged period of cold may have an opposite effect on prices.

The production of cotton in the South this year is about 750,000 bales under that of 1912. This means a relative falling off in the production of cottonseed cake and meal, which are by-products of cotton. The production of the feeds, however, is even lighter, due to the fact that heavy, incessant rains at the close of the growing season reduced the quality of cottonseed. Much that would have gone to mills is therefore being used for fertilizer purposes. However, the foreign demand for cottonseed feeds, an important factor in the market, has not been active, Europe having liberal feed crops.

Not a few buyers of cottonseed feeds are apparently overlooking the most important point in making purchases—the amount of protein in the product. Cold pressed cake with about 26 per cent protein is selling only \$5 per ton under cottonseed meal and cake with 41 per cent protein. Old dealers generally figure each unit of protein worth about 50 cents, so there is a difference of \$7.50 per ton between the 26 per cent cold pressed cake and the 41 per cent meal. A conservative judge of the value of the two feeds maintains, however, that the 41 per cent cake and meal is worth at least \$10 per ton more than the 26 per cent cottonseed cake.

CATTLE MARKET STILL DISAPPOINTING.

Disappointment still prevails in the cattle market. Fat steers are \$1 to \$1.50 per 100 pounds lower than a year ago, although corn and other feeds are higher. The cost of stockers and feeders the past summer was higher, too. Few Christmas bees have made money for feeders. An example of this was furnished in the sale of a bunch of 1,869-pound steers at \$9 at Kansas City recently. These steers had been purchased at Kansas City in October, 1912, at \$8.25 per hundred weight. They averaged about 1,300 pounds in weight then. The interest on the money required to carry them over a year was at least \$8, and they were on full feed from last July to the first week of this month. Light weight steers have been selling relatively better, however, the mild weather promoting demand for the smaller cuts of beef.

In the stocker and feeder division of the cattle market a rather peculiar situation exists. Stockers weighing 900 pounds and under are selling at fully as much or more than feeders weighing 900 pounds and over. A bunch of feeders weighing 1,100 pounds is worth less per hundred weight than a bunch weighing 1,000 pounds. This is due to the desire of farmers and feeders for cattle for roughing purposes or for finishing for the late winter market. In other words, feeders have not lost hope for a remunerative fat cattle market in the future.

DO NOT MARKET HALF-FAT SHEEP.

Sheep and lamb trade is about up to expectations of optimists. Fat lambs are again on an \$8 basis and ewes up to \$5. These prices enable cautious feeders to earn a profit. After the first of the year, however, the lamb market will have to advance 50 cents per hundred weight over present prices to put the market on a profitable level for feeders. Kansas, of course, is not profiting from the satisfactory season to a large degree, having fewer lambs and sheep on feed than last year. However, Sunflower state feeders have been getting into the business more extensively. (Continued on Page Eighteen.)

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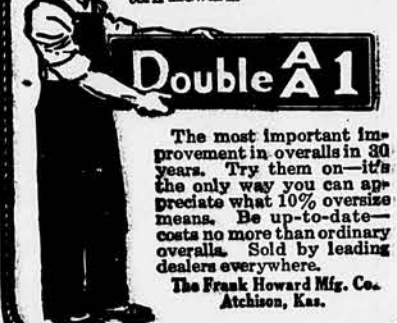
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KANSAS FARMER

With which is combined FARMER'S ADVOCATE, established 1877.

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KANSAS FARMER aims to publish only the advertisements of reliable persons or firms, and we guarantee our subscribers against loss due to fraudulent misrepresentation in any advertisement appearing in this issue, provided, that mention was made of KANSAS FARMER when ordering. We do not, however, undertake to settle minor claims or disputes between a subscriber and advertiser, or be responsible in case of bankruptcy of advertiser after advertisement appears. Claims must be made within thirty days.



FOR LIVE STOCK GROWERS.

Through the Kansas State Stockmen's Association, which was organized in Topeka last week, the stock growers of Kansas have undertaken an important work. The success of the association will depend upon the extent to which the spirit of co-operation is pursued. With a paid secretary to look after the widely varying interests of the association it is certain that many benefits can accrue through the better handling of shippers' business by the railroads, stock yards and other organizations through which it is necessary for the stockman to handle his business.

It is certain that with a capable secretary continuously on the job, the organization can have an influence which it could not otherwise possess or obtain. The secretary, if we understand correctly, will act for his association in the same way that the manager of the traffic bureau for a city like Topeka or Wichita handles the transportation features for the merchants of his own, and who takes care of claims for damage through improper handling or delay, watches the rates affecting the various industries, watches legislation, court proceedings, etc.

The live stock industry in the aggregate is far more important to the live stock growers of Kansas than can be the combined industries of any city within the state. If these cities find it wise to have their interests looked after through a paid secretary and a well-organized and maintained traffic bureau, then there are the same benefits to accrue through such secretary and organization, to live stock growers and shippers.

It is the purpose of the organization to touch and assist in the development of every phase of the live stock industry. In a general way it can be helpful in the more economical production of beef and pork, educational in the kind of market animals most desirable, beneficial in forecasting the market outlook and so aid its members in placing their stock upon the market under favorable market conditions. Through these and other means it can benefit the stock grower before the animals have left the feed lot. Through the means mentioned above it can benefit him after the animals have passed beyond his control.

It is certain that the beef of the future will be produced on the comparatively small farm, meaning, therefore, that in the future beef production will be in the hands of a larger number of producers than heretofore. The association has recognized this in that it will accept to membership men who annually sell a half dozen or less steers or hogs. The membership will be held strictly to live stock growers, representatives of other interests not being admitted. With these safeguards thrown around the organization and with the membership made so general as to include all growers of live stock, that membership should become large and the influence of the organization great. The stock growers of Iowa have accomplished much through the Corn Belt Beef Producers' Association, the organization of that state; the Texas Cattle Growers' Association, organized along similar lines, has accomplished much for the live stock industry in that state. It is reasonable to conclude that with proper handling the Kansas association will become a wholesome and upbuilding influence in this state.

This organization sets about its business with no "chips" on its shoulders. It seeks no fight with anyone or anything. The organization is to take care of the business of its members as that business has not heretofore been looked after, and in so far as the deliberations would indicate, a course following fairness and sound business judgment will prevail.

KANSAS FARMER is pleased to welcome this organization to the large number of other strong and effective organizations in Kansas. We feel that Kansas farmers can utilize their feeds through live stock at the greatest profit when intelligently fed to good animals.

It is for them to market this live stock economically from feed lot to consumer and pay no tribute which is not honestly and justly earned by the rendering of an essential service. This organization is capable of wielding an effective service to each end. What the association cannot actually accomplish through its own efforts it can assist in accomplishing through legislative and judicial action if necessary to defend its interests by such means. It is the belief of KANSAS FARMER that the organization will work to a "square deal" policy and that it will accomplish much.

MEETING LABOR SCARCITY.

More cows would be milked if more labor were available for milking. Under present conditions it is next to impossible to hire a man who will milk cows. However, in those dairies operated on a large scale and which for the most part are supplying milk to the city for domestic consumption, we notice that milkers are obtainable. We are inclined to the belief, however, that such men are paid about \$45 per month the year around, board and lodging being furnished, of course. One reason the farmer cannot obtain men for milking and for that matter for other purposes, is because he does not pay \$45 or more per month. The farmer refuses to pay such wages because he cannot afford to pay them. This is a sufficiently good reason for his doing without a hand and limiting his farm operations to such work as he and his family can perform.

There are few general farmers who will not admit that they could use a hired hand if it were possible to obtain such man at reasonable wages. This means that the farmer would do more work on the acres he is now farming if the help were available. It means also that he would milk more cows if he had more help to do the milking. Referring particularly to the dairy, we inquire how the labor question is to be met. From the standpoint of the dairy it will be met from the standpoint of a revision of general farm operations. It does not pay to employ a hired man to milk cows yielding 75 to 100 pounds of butter fat per year. It does not pay to feed such cows a balanced ration for milk, and if there is anything else to be done it will not pay the members of the farmer's own family to spend their time milking such cows. Neither will it pay the farmer to employ hired help to grow an average yield of wheat, corn, or other farm crops, unless by the employment of additional help on the

farm the income can be increased to a sufficient extent to pay for the labor, the interest and taxes on the increased horse power, farm machinery, etc., and at the same time leave a profit to the farmer for assuming the risk and the management. Unless this can be done, his farm operations should be restricted to what he himself can handle.

However, as a rule and under good business judgment, more labor can profitably be expended on the farm if as a result of that labor better crops are grown, pork and beef can be more economically produced and the product of the cow increased two or three times—this by increasing the attention given to each of the various industries. For instance, if the farmer could milk a herd of ten or twelve cows yielding 300 pounds of butter fat per cow per year, he could better afford to pay \$45 per month for a man who could help night and morning than he could pay \$15 a month to a man who would spend an hour twice a day milking cows of 75 to 100 pounds butter fat or of less capacity.

The labor situation, as we view it, must be met first by paying better wages. In order to pay better wages a higher standard of farm management must be employed. In fact we think not only a higher standard of farm management must apply, but we must revise that standard. It must of necessity become a question of growing better and bigger crops and the marketing of these crops through cattle, hogs and dairy cows, either of which will give a market for corn, kafir, alfalfa hay, etc., in excess of the average ten-year prices paid at the elevator or the hay shed. With such revised system of farm management there will then be work for the hired man the year around. There will not be a single day in the year when that man's work will not be converted into cash. If we would have help to operate our farms and our dairies, there must be an improvement in the general conduct of the business.

It remained for Judge Whitcomb of the Second Division of the Shawnee County District Court to place the final estimate upon the value of life insurance, in an unusual order rendered by him recently. In a divorce case he decreed that the former husband insure his life for \$1,000, the policy to be made payable to his divorced wife, the latter being awarded the custody of two minor children. The divorced husband will pay \$40 alimony each month and must keep in force the insurance policy.

GOOD ROAD WORK NEEDED.

It is certain that intelligent use of the road fund is needed. Too much "good intention" is used in the greater part of our road work and not enough of good judgment. Common sense applied with industry will build good dirt roads. Here is an observation on road work by the Utica Enterprise, of Ness County:

"It's about time that those who have charge of road work in this part of the country, and that takes in most of the western part of the state according to our observation, either learned how to use the road fund and apply road work to advantage in the improvement of the roads, or else keep their hands off the fund and leave it accumulate and stop ruining what roads we have. It is an acknowledged fact that most of our road work is detrimental though occasionally there is a piece of good work done, and that the money and labor expended on them is thrown away or worse.

"With an occasional exception all that our roads need is a little grading up in the center and then dragged at the right time to prevent their rutting, and this is exactly what they do not get. When work is done on a piece of road now, which is timed to the convenience of the party doing the work and without regard to when it should be done, it is generally six months to a year before the road is fit to travel again; it is left soft, rough and irregular, with a center that holds what water that falls on it and transforms it into a muck hole, and then instead of being smoothed up it is left to wear out the teams, vehicles and patience of the drivers of all who pass that way. A little work at the right time would remedy the fault and give us good smooth roads instead of the stretches of bumps and jolts that are taking the place of the roads we used to have."

In the appointment of a special commission of six educators to look after the possibilities of eliminating unnecessary duplications at the state educational institutions, the board of educational administration has done not only the logical but the politic thing. The appointment of this commission was announced last week. It is composed of D. M. Bowen, chairman, secretary of the board of administration; W. H. Johnson, state high school inspector, secretary; Chancellor Strong, Kansas University; President Waters, Kansas Agricultural College; President Butcher, State Normal; President Brandenburg, head of the Normal Training School; and W. A. Lewis, principal of the Hays Normal. According to the official announcement, "it shall be the duty of this commission to assist the board in the elimination of unnecessary duplications, examine and report to the board of administration some plan which will correlate the various schools under its control and make it possible for students to go from one school to another without serious embarrassment or loss of time." The committee has before it a large task. However, the committee is equal to the duty imposed upon it. The heads of these great institutions are the logical advisers in the revision of courses with a view to eliminating the much-talked-about unnecessary duplications. It is certain that a happy solution will be the result. It is certain, too, that the committee's findings will be such as will not impair the work of any of the great state institutions and that an important and embarrassing problem will be solved. It occurs to us that the board of administration of Kansas' educational institutions is wearing well. Its wisdom increases with age. It has been our feeling that the administrative board should be given a chance to work out its ideas and that judgment be withheld as to the law under which the commission operates until it be given a fair trial. It is not within the range of human understanding to believe that the board of educational administration, manned as it is, would through design or accident impair the efficiency of Kansas' educational system.

SURE FEED IS SURE MONEY

ON the back page will be found an announcement of Mr. Borman's new book which thoroughly covers the subject of the grain sorghums. I believe this is the best book on the subject that has yet been written, and it deals with it in the most interesting way, and particularly from the money-making standpoint.

We have not yet been able to find a name in keeping with the book, and are offering a cash prize of \$25 to the person who can suggest a suitable title. This title should be sent in before the 25th of December and addressed to me. Read the advertisement carefully on the back page and you will find a description of the book. Get busy and earn this \$25. This book is now in the printing department and will be ready for delivery about January 25.

ALBERT T. REID, President.



COWPEAS FOR GREEN MANURE

Maintain Nitrogen and Humus Supply—L. E. Call, Agronomist, K. S. A. C.

COWPEAS plowed under as a green manuring crop preceding corn increased the yield of corn nine bushels to the acre on an average of four years' trial at the Kansas Experiment Station, and increased the yield of wheat following corn over one and one-half bushels per acre. There seems to be no crop adapted to our system of farming that is of greater value for green manuring purposes than the cowpea.

VALUE OF GREEN MANURING.

The growing of cowpeas greatly improves the soil. Being a rank feeder and deep rooted, the crop is able to use plant food which the roots of other plants may not secure. Much of this plant food later becomes available to other crops planted after the cowpeas. The cowpea has an advantage over the other crops which are not legumes in that it is able to use the free nitrogen of the air through the aid of bacteria which live upon its roots. The plowing under of a crop of green cowpeas will greatly increase the supply of humus and nitrogen in the soil, and even when the crop is harvested for hay or seed, some increase in soil nitrogen may result from the decay of the roots left in the soil.

In many soils in this state nitrogen is the limiting element of fertility, and anything that will increase the nitrogen supply in the soil will increase the soil's productivity. The cowpea having the ability to secure nitrogen from the atmosphere, not only produces more abundantly than any other crop not having this power, but leaves the soil in better condition for the crops which follow.

Growing cowpeas is a practical way of maintaining the nitrogen and humus supply of the soil, especially on farms keeping little live stock, but upon a stock farm a green manuring crop should not be expected to replace barnyard manure, but rather to supplant it. Upon stock farms where cowpeas are grown as a catch crop after wheat or oats for soil improvement, it will be found more profitable to pasture the cowpeas rather than to plow under the entire crop. While some of the beneficial effects of the cowpea is lost by this practice, yet by pasturing the drop-

pings of the animals remain upon the field and in this way eighty per cent of the nitrogen secured by the plant from the air is added to the soil, although at least fifty per cent of the organic matter is destroyed by the animal.

PREPARING THE SOIL.

The most practical plan for growing cowpeas for green manuring purposes is to plant in wheat or oats stubble, plow the crop under before heavy frost in the fall, and follow with corn next year. The ideal practice of seeding in economy of time is to follow the binder directly with a single disk drill, or if the stubble is weedy or trashy, it is advisable to disk ahead of the drill behind the binder. The objection to this practice is the amount of labor required at

harvest time. It is possible to sow cowpeas after oats or wheat have been threshed or stacked if the grain is removed from the field at an early date as possible. It is not advisable to delay the seeding of the cowpeas much after July 10 in eastern and central Kansas.

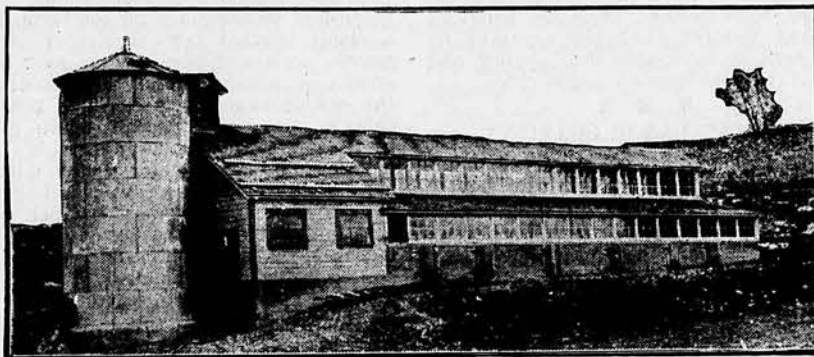
METHODS OF PLANTING.

When cowpeas are not sown until after the grain is removed from the field, two methods of seeding may be followed. First, the stubble may be double disked and the cowpeas seeded in drill rows six to eight inches apart. When planting in this manner, the grain drill will prove the most satisfactory implement and should be set to sow about six pecks of wheat per acre which will sow the peas at the rate of a bushel to one

and one-quarter bushels per acre. Planting in close drill rows in this way does not require later inter-culture, and from the economy of work is the cheapest practice. The other method of planting is to plant in rows three feet to three and one-half feet apart and cultivate. If planted in rows the cowpeas may be planted with the corn planter. Where the edge-drop planter is used it is necessary to use the sixteen cell plate and the highest gear in order to drop the peas thick enough. Another method of planting in rows is to use a common grain drill, stopping up part of the grain cups so as to leave rows three feet apart, setting the drill to sow about two bushels of wheat per acre. This rate of seeding drops the seed about two to four inches apart in the row and requires about one-third of a bushel to seed an acre. The peas should be planted two to three inches deep in mellow soil.

When planted with a corn planter it is more satisfactory to use the disk furrow opener on the planter rather than to surface plant. This is particularly true if the soil is a little trashy. Planting with the furrow opener also has the advantage in that it places the peas deeper into the soil where the surface is dry, and in early cultivation the weeds are more readily destroyed by covering them as the furrows are filled. The cowpeas may be listed when planted in rows but care should be taken not to list over four or five inches deep. The plant starts slowly in deeply listed furrows and may make a poor stand and stunted growth. When planted in rows it will be necessary to cultivate the cowpeas at least twice. This extra work required in row planting is offset by the saving in seed, although with favorable growing conditions a larger quantity of green manure will be secured where cowpeas are planted broadcast rather than in the row.

In ordinary seasons in eastern Kansas a good crop of cowpeas for green manuring can be secured by planting after wheat and oats. This practice cannot be recommended for the western third of Kansas and will only prove profitable in central Kansas in years when the late summer rainfall is above normal.



A WELL constructed hog house is an important part of the equipment of a successful hog farm. If sows must farrow in the fence corner or other unprotected location on a cold, stormy night, little can be expected of the pig crop. Many breeders prefer to use exclusively the individual farrowing houses; others wish to have the animals kept together under one roof, where less labor will be required and where the work may all be done under cover. Such a house must be arranged so as to get sunlight into every pen, and must be thoroughly sanitary in every respect.

The Kansas Experiment Station has used in the past the individual house almost entirely. The house shown in the picture has just been completed and will be used this winter in housing part of the Experiment Station breeding herd at Manhattan. The small silo is filled with kafir silage and more definite information will soon be available on the value of silage as a portion of the hog ration during the winter season.

Establishing The Farm Dairy

Profitable Dairying Does Not Depend Upon Large Initial Investment

By T. A. BORMAN

WA. Butler County, writes that he has for years been desirous of establishing a dairy herd on somewhat the same basis as that established by ex-Governor Stubbs and described in KANSAS FARMER of November 22, but has not seen his way clear to so do because of the capital required to build modern dairy barns and silos and because of the first cost of superior pure-bred dairy animals. The subscriber asked for a personal reply to his letter. Such reply was given. We feel that the following paragraphs of that reply will be of general interest to KANSAS FARMER folks:

The feeling you entertain with reference to the initial investment of capital is the same feeling that has deterred many a good man from successfully engaging in dairying. The fact is that a profitable dairy is not dependent upon a strictly modern dairy barn of cement floors, steel stanchions, etc., running water in the barn, litter carriers or cement silos. If profitable dairying were dependent upon such an outlay as would be required to provide at the outset the above sort of buildings, I can assure you that there would be fewer dairies in the United States than there now are. Such dairies would of necessity be in the hands of only the well to do—such men as Governor Stubbs. However, I am glad that men of means find pleasure and profit in dairying. They have done the business an appreciable benefit, particularly so along breeding lines, as has several times been mentioned in KANSAS FARMER. Such established dairies have been the inspiration to better work to hundreds of men who of necessity were compelled to begin at the bottom.

I assure you that a very ordinary farm barn can give results fully as sat-

isfactory from the standpoint of proper housing of cows and economical and profitable milk production as can the most expensive buildings. Recently we visited a dairy, the barn of which was built of glazed brick, the floors were cork laid on top of concrete, the feed and manure were hauled in carriers, the lighting was done by electricity, and every other conceivable convenience was supplied, but the glazed brick did not exclude the cold more than would boards; the cork floor was no more comfortable than the plank we used in our home dairy, although the cork could be kept cleaner and strictly sanitary. The electric lights did not cause the cows to give more milk than did the smoky lantern in lighting the way of the feeder and care-taker. The feed from the carriers was not capable of producing any more milk than the feed we have distributed from a bushel basket. Because we had to load the manure into a wagon every morning instead of first loading it into a carrier, did not prevent us from keeping the barn clean. Many a man and his family are finding the comforts of home in a \$1,000 dwelling and who would not find additional comforts or more satisfaction in a \$2,000 house, but the strictly modern barn and modern house are not to be frowned upon. It is fortunate, however, that there is a way by which the money can be made from the use of moderate buildings which will erect the better buildings later. The right use of the right kind of dairy cow will eventually enable the dairy farmer to build any sort of buildings required to meet this need. If you can give your cows comfortable housing and silage from a good wood stave silo,

you are as well prepared to stable and feed your cows and realize a profit therefrom, as is the man who has the very latest type of buildings and most modern conveniences. The profitability of the dairy depends upon two things—first, the "know-how" of the man at the head of the herd, and second, the quality of the cows from which the profit must come.

A pure-bred registered Holstein cow producing 500 pounds of butter fat a year might cost \$500 or possibly more, and as a result of the sale her milk and her pure-bred offspring prove a highly profitable investment. A grade cow producing 350 to 400 pounds of butter fat per year may be had for less than half the cost and still prove a very profitable investment from the standpoint of sale of dairy products alone. Her offspring would not sell for as much money as in the case of the pure-bred cow, but she would produce a calf of superior milking quality which would sell as a milk cow at a handsome profit if kept in the herd. The justification for paying long prices for pure-bred cows is for two reasons: First, because it is expected that she will produce a larger quantity of butter fat annually and at less cost per pound than the grade cow, and second, because of her pure breeding the offspring will sell at a much higher price than would the offspring from a grade.

Governor Stubbs was in our office Thanksgiving morning talking over his cow venture. It is the Governor's purpose to establish not only a herd of the most profitable milkers possible, but also to establish a herd of such breeding and such superiority as will result in

the sale of the offering at good prices.

If you so desire you can, we think, spend a moderate amount of money—less than one-half the amount the Governor has expended—and purchase a first-class good grade herd headed by a pure-bred sire of superior quality, which would pay a big return on your investment; not figuring, bear in mind, that you are going to put a lot of money into expensive buildings. As you feel disposed you can add a few pure-bred cows of large producing capacity to the herd and eventually work into a pure-bred herd, arriving finally at the point at which the Governor began. In the purchase of a grade herd—or, for that matter, a pure-bred herd—it is necessary to set out with a determination that each year the herd will be improved in profitableness and in general good character of the animals. From the very day you begin work with the herd you should begin grading up and eventually you will have a breeding herd as well as a profitable milk-producing herd.

One of the beauties of the dairy business which has always appealed to me—as to all thinking farmers—is that the farmer can begin dairying wholly within his means and by the pursuance of the proper methods can make his herd more profitable every year, improving the blood at the same time and eventually working into the sort of herd desired and the herd on such basis has furnished the money necessary to achieve the ambition.

I do not know the test of the milk produced by the cows Governor Stubbs has bought. I will say, however, that a test of a herd of twenty cows ranging, we will say, from 3.2 to 4 per cent, is a sufficiently high test to insure the profitableness of large-producing cows. In

(Continued on Page Thirteen.)

FEEDING DAMAGED FORAGE

Short Feed Crop Calls For Economy and Extreme Care in the Use

B. G. C. WHEELER

It was apparent early in the season that all kinds of feed for the wintering of stock would be extremely scarce and high priced. A scarcity of rough feed is a much more serious matter than a scarcity of grain. With an abundance of high-quality roughage most of the farm animals can be maintained through the winter season in good shape. Ordinarily we have been accustomed to treat the low grade roughage as of comparatively little importance. This has been true because in most years there has been an abundance of this class of feed and on most Kansas farms more feed of this kind is actually wasted through the winter than is consumed by the live stock. It is the exception when any effort is made to stack straw in such a manner as to preserve it for feeding purposes during the winter season, and yet even this straw which is commonly considered a waste product, and sometimes even burned, can be used quite extensively in wintering stock when supplemented with silage or silage and a small amount of some such concentrate as cottonseed meal.

During the latter part of the summer when all were concerned with the thought of making preparations for the wintering of the cattle and other stock, many inquiries came to KANSAS FARMER regarding the best means of conserving the feed value of the stunted, immature crops which were produced in many sections. Much valuable information and advice was given. The use of the silo was advocated and those having silos already or planning to put them up were told how to handle these crops so as to get the very largest amount of feed value out of them when stored in this manner.

CURING WAS DIFFICULT THIS FALL.

With the abundant rains which came late in the fall most of the kafir and cane made a late fall growth, thus producing a forage which at frost time was heavily laden with the juices of the growing plant. It was necessary to harvest these crops very soon after the frosts came in order to prevent the leafy portions of the plant from being shattered and blown away. In many instances kafir and cane were placed in the shock with so much moisture tied up in the bundles that, with the abnormal weather which prevailed in the fall, a large amount of molding took place. From the fact that many of these forage crops did not grow to full maturity the shocks did not stand up well, and as a result the feed was more easily injured by the rains than under ordinary conditions. In consideration of the fact that the feed supply was extremely limited this year it would have been the part of wisdom to have used every precaution possible to cure this abnormally green forage and place it under shelter as quickly as possible in stacks or large shocks so as to prevent the fall and winter losses which in ordinary seasons we have been in the habit of ignoring.

MOLD CAUSE OF BLIND STAGGERS.

The reduction of the feed value due to the weathering and decomposition was not the only evil to follow. The effects of these molds upon live stock have time and again been exceedingly disastrous. Dr. T. P. Haslam, of the Kansas Experiment Station, who has during the past six or seven years carried on a large amount of experimental work on the effects of moldy feeds, was interviewed on this subject early last fall. Doctor Haslam's opinion was that the conditions pointed this year to a stronger outbreak of "blind staggers" in horses than we have experienced in many years. His opinion was based on the conditions prevailing and on the manner in which the immature crops were being handled and stored on our Kansas farms this season. In an article on "Corn Mold and Blind Staggers" in the October 11 issue of KANSAS FARMER, these warnings as to the probability of serious outbreaks of "blind staggers" and other diseases due to moldy feed were presented and valuable advice given.

Those having silos for the preservation of these crops were especially fortunate, since when properly placed in the silo the feed is absolutely safe from the damaging effects of the numerous rains which have prevailed through the fall and early winter. Many silos were constructed even after the crops were harvested and in the shock for the purpose of storing these feeds in such a manner as to secure the largest feed

value and avoid all dangers due to the deterioration following ordinary winter storage.

LOSS FROM DAMAGE IN THE FIELD.

The farmers who handled their feeds in the ordinary manner, storing them in small shocks in the fields, already are beginning to report serious effects following the use of this badly damaged feed. Many have absolutely nothing else with which to maintain their animals during the winter season, and this condition presents a serious problem to those so situated. T. M. L., one of our subscribers in Butler County, has recently written that the recent rains have badly damaged or spoiled all the feeds in his section of the country. Already several of the horses and cattle have died as a result of eating this moldy feed. Many have no wheat pasture or alfalfa hay available for feeding purposes. This reader anxiously inquires whether anything can be done to counteract these poisonous effects. He is fortunate enough himself to have some bluegrass pasture available, and is allowing his stock to run on this and feeding them the moldy kafir once a day only at the present time.

Where stock have died as a result of

Where cattle are concerned, the danger is much less than with horses. The extremely fatal disease known as "blind staggers" among horses has almost invariably been traced to the presence of poisonous molds in the feeds which the horses have consumed. Horses are valuable animals and a large amount of money is tied up in the horse stock of the farm, and every effort should be made to feed the horses on material free from these dangerous molds. The correspondent above referred to states that his corn fodder has kept a little better than the kafir fodder. This is undoubtedly due to the fact that it was cured out better before it was placed in the shock. This corn fodder might possibly be reserved for the feeding of horses, throwing away or giving to the cattle such portions as might appear to be seriously effected by the mold. The above are about the only precautionary measures that can be taken, if the damaged feed must be used. The use of brine on the forage or the administration of tonics of any kind would have no effect in reducing the danger from the use of the moldy feed.

MOLDY FORAGE FOR THE SILO.

Another of our correspondents, E. L.

into the silo, providing a silo is available for that purpose. In order to be successful the material must be thoroughly wetted as it goes in. With the application of a sufficient amount of water the cut up material will pack solidly in the silo and will develop heat and pass through a mild fermentation. It is our opinion that the heat developed, in connection with the mild acids produced, will effectually stop the development of more mold. In the operation of cutting this feed, some of the mold will undoubtedly be broken loose from the fodder and blown out.

It is true that mold sometimes develops in the silo, and the feeding of moldy silage has produced bad effects. This has been especially true in the case of horses. Moldy silage is doubtless due to the fact that some of the material was not sufficiently packed so as to exclude all the air, or else the silo itself was not airtight and the air passed in from the outside and produced the spots of moldy silage which have occurred.

THE SILO AN ABSOLUTE PROTECTION.

The use of the silo is without doubt the most effective method of eliminating all such danger to feed as has occurred this fall and winter. In fact, from the standpoint of insuring absolute, dependable sources of rough feed, there is no practice open to the stock farmer which will equal that of constructing a silo for the preservation of the forage feeds of the farm. The importance of the silo along this line undoubtedly constitutes one of the strongest lessons which can be derived from the experiences of the present season.

Milk and Butter Contest.

In connection with the meeting of the Kansas State Dairy Association, to be held in Manhattan January 2, 1914, nearly \$100 in cash and prizes will be offered for the best exhibits of country butter, milk and creamery butter produced in Kansas. The entries for country butter and creamery butter will close Monday night, December 29, while the entries for milk will close Wednesday noon, December 31. To aid those who send entries by express the trains will be met and the products placed in cold storage at once. The following is a list of the prizes in the different classes up to date. More prizes are expected and the completed list will be published later:

For the best sample of milk produced on December 29, 1913, and entered in the contest, the following prizes will be given: First prize, 12-bottle milk tester, by Kennedy Supply Co.; second prize, \$7.50 cash, by Belle Springs Creamery Co.; third prize, \$5 cash, by Beatrice Creamery Co.; fourth prize, one milk scale, by Creamery Package Co.; fifth prize, \$2.50 cash, by Belle Springs Creamery Co.; sixth prize, one sanitary milk pail, by Creamery Package Co.; seventh prize, \$1 cash; eighth prize, \$1 cash.

For the best five pounds of country butter the following prizes will be given: First prize, \$10 cash, by DeLaval Separator Co.; second prize, stag horn carving set, by J. B. Ford Co.; third prize, \$3 cash, by DeLaval Separator Co.; fourth prize, \$2 cash, by DeLaval Separator Co.; fifth prize, one sanitary milk stool, by Creamery Package Co. As a special prize the Manhattan Mercury has offered \$5 for the best five pounds of butter produced in Riley County and to become the property of the Mercury.

For the best 10-pound tub of creamery butter the following prizes will be given: First prize, silver loving cup, by KANSAS FARMER, Topeka, Kan., to be held by the winner for one year and to be competed for annually until won three times, when it becomes the property of such winner; second prize, \$8 cash, by Beatrice Creamery Co.; third prize, cut glass sugar and creamer, by J. B. Ford Co.; fourth prize, \$3 cash; fifth prize, \$2 cash.

This contest will be of an educational nature. The entries will be passed upon by competent judges and their criticism, along with suggestions for improvement, will be sent to the contestants after the contest. Unless otherwise directed the butter will be sold and checks sent to the owners. For entry blanks and information concerning the above, write to J. B. Fitch, Secretary-Treasurer Kansas State Dairy Association, Manhattan, Kan.

GIVE HEED TO FORAGE IN FUTURE

IN a season of ordinary plenty in Kansas, there is as much or more roughage wasted than is actually eaten by the live stock.

Because of the usually abundant roughage supply we do not give due thought to the proper care of our common and coarser roughages.

This is one of those years when economy should be exercised in handling and caring for every spear of feed, but through neglect to do this a short feed year is made shorter.

Of all years, this was one in which feed should have been protected from the elements.

Failure to stack roughage has caused a serious loss to Kansas stockmen through the moulding and rotting of feed standing in the field.

Early in the season KANSAS FARMER urged the stacking of this feed—and while it was on the wagon that it be hauled near the barns and feed lots. This suggestion was in the interest of the greatest possible feed economy.

The recent heavy rains have damaged large quantities of feed and many letters of inquiry have been received asking if mouldy forage can safely be fed. On this page Mr. Wheeler tells you what can be done with it.

There is just as much sense in leaving alfalfa, clover and prairie hay in the cock over winter as there is in leaving cane and kafir in small piles and shocks in the field all winter.

Such treatment of alfalfa, clover and prairie hay would by spring reduce it to manure. That is what is happening to the cane and kafir now. It should have been stacked to protect it from damage by the elements that it might have retained its greatest feeding value.

This is not written in the spirit of "I told you so"—far from that. But I want to say that KANSAS FARMER writes of live, seasonable topics, and the acceptance of our advice on this point would have saved thousands of tons of good feed and many head of live stock.

eating forage of this kind there is a bare possibility that cyanide or prussic acid is present. Ordinarily this poison occurs only in the green kafir or cane of very stunted growth, but cases are on record where it has been found in dangerous quantities even in cured forage. We would advise that samples of this moldy kafir and cane be sent to Dr. T. P. Haslam, of the veterinary department of the Kansas Experiment Station at Manhattan. With the experience coming from his experimental work with feeds of this kind he will doubtless be able to give helpful advice as a result of the examinations which can be made of the samples sent.

CURE OUT THE FORAGE AND PROTECT IT.

If the fodder is still damp in the bundles, it is our judgment that every effort possible should be made to cure this forage out in order that it may be stored under cover or placed in stacks and protected from further weather damage. Badly molded forage of this kind may be rendered less dangerous by running it through a threshing machine or shredder. This, of course, can only be done where the forage is thoroughly dried out. The purpose to be accomplished is the removing, by the process of threshing, of as much of the mold dust as possible. Reports have been made of very satisfactory results following this method of handling moldy forage in order to make it less dangerous to live stock. Of course it must be sufficiently cured so that when stacked or stored in barns or hay sheds it will not heat and mold again in the stack.

J., of Coffey County, in writing concerning this same matter, brings up the proposition of placing this more or less moldy kafir fodder in a silo. This correspondent has 30 acres of kafir which was not harvested until after the heavy freeze late in October. Owing to the wet condition of the ground it was impossible for him to harvest this kafir for nearly two weeks after the frost. This may perhaps have been a favorable circumstance, since the forage was not bound up in bundles with quite so much juice in it as would have been the case if it had been harvested earlier. The point this correspondent brings up is whether the kafir fodder which is more or less moldy would spoil any worse than it is now if he should place it in the silo. His cattle are eating it greedily at the present time and so far no harm has resulted. It is absolutely all the feed he has for wintering his stock, and the prevention of the continued deterioration and the securing of the best possible use of this feed is a very important consideration with him.

FERMENTATION STOPS MOLD DEVELOPMENT.

While we have no definite experiences to point to along this line, we do know that the placing of cured kafir or corn fodder in the silo during the winter season is a practice which will bring about more complete consumption of the feed, and would bring about a greater economy in its use. The man who is short on rough feed, as most farmers are this season, is undoubtedly justified in going to the expense of running dry fodder

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

OUR subscriber, A. P., Pratt County, writes that farmers in his section are troubled on account of the sickness of horses caused by eating too much wheat. There is only one remedy, of course, and that is less pasture. The horse never knows when to quit eating. He is the most persistent eater of all our farm animals. He enjoys good feed as much as any animal and has the disposition to devour all he can while the getting is good. Wheat pasturage during the daytime, with a feed of roughage every night, and the horse kept off the wheat during the night, should result in a combination by which the horse will keep in good health. We suspect, however, that there are farmers here and there who have depended solely upon wheat pasture, and in the event of its being the sole feed of the horse, digestive derangements follow. The matter is one wholly of supplying the horse with the character of feeds best adapted to his needs and for maintaining proper conditions of health.

Sweet Clover For Kingman County.

Subscriber J. D. R., Kingman County, writes: "Alfalfa grows well here on lowlands but not on the uplands. Would sweet clover do better than alfalfa on these uplands? Will sweet clover stand pasturing and does it cause bloat? When is the best seeding time—spring or fall, and how should the ground be prepared? Are there any state or government bulletins on this subject?"

Sweet clover will grow on the uplands of Kingman County and we believe generally on all the soils of the state except in the case of poorly drained, sour, or extremely sandy soils. To be sure, sweet clover, like other crops, thrives best on fertile lands. However, the largest place it has to fill in Kansas farming is on the poorer soils. Sweet clover is a good crop to precede alfalfa. The best results in the case of sweet clover growing are obtained when the soil is inoculated with the nitrogen gathering bacteria. If sweet clover is not growing along roadsides or in waste places in the locality in which the field is to be seeded, it is certain that inoculation will prove beneficial. Inoculation may be performed by using some of the commercial bacteria cultures mixed with the seed or by distributing soil from an alfalfa field or sweet clover patch at the rate of two to three hundred pounds per acre. It would be our guess that in Kingman County sweet clover will be found growing naturally in fence corners, on roadsides and along railway right of ways, indicating the presence of bacteria in all fields, and that inoculation would not be necessary. It is believed that in the southeastern portion of the state where sweet clover does not grow naturally, is the only section in which inoculation is necessary.

Sweet clover makes a good pasture for all kinds of farm live stock. It produces both early and late grazing. As a pasture and as a hay it is equal to alfalfa and red clover in feeding value. It furnishes a succulent pasture during seasons of the year when native pastures are dry. In last week's KANSAS FARMER, on page seven, the results of sweet clover as compared with red clover and alfalfa for hog pasture as shown by the Wyoming and Iowa experiment stations, were reported in detail. While in feeding value the hay is equal to alfalfa and clover, the waste is somewhat greater on account of the greater coarseness of the sweet clover hay.

Sweet clover rarely causes bloat, although it cannot be safely said that it never bloats. The theory is that the cumarin in the sweet clover prevents any rapid fermentation of the feed in the animals' stomach. Cattle do not relish sweet clover at first owing to its bitter taste, but after they become accustomed to it, it is relished by them as much as any green forage. Sweet clover should be pastured sufficiently to keep the growth down in order that there may be fresh shoots for grazing purposes. If the field is not pastured sufficiently close to keep the fresh shoots coming on, it may be necessary to mow the field, cutting off the mature growth and so stimulating newer growth. It must be remembered that sweet clover is a biennial and enough mature plants should stand from year to year to keep the field seeded. The stand may be pastured during the first summer.

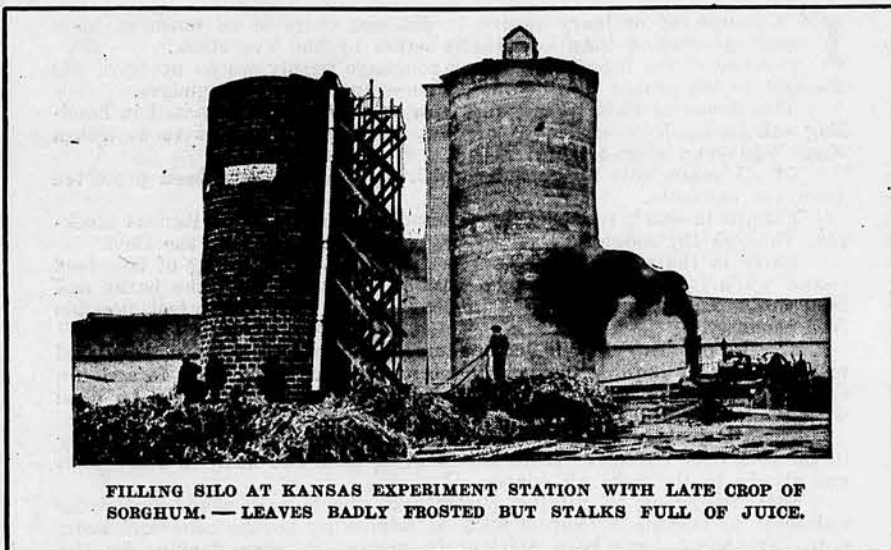
It is regarded by the Kansas Experiment Station that seeding may be done from January to the last of May with equal chances of success. In favorable seasons good stands of sweet clover may be obtained by seeding with fall wheat as in the case of red clover. Under natural conditions sweet clover remains in the ground during the winter and germinates in the spring. Twenty to twenty-five pounds of clean or hulled seed per acre is required; if unhulled seed is used, the amount should be increased five pounds. This comparatively large amount of seed is necessary because of the fact that only about one-half of the seed germinates the first season.

A thoroughly compact seed bed is necessary with sufficient loose soil on top to cover the seed. It is believed that the lack of a solid seed bed is more frequently the cause of failure to obtain stands of sweet clover upon cultivated fields than any other cause. The observant reader will have noticed that sweet clover readily re-seeds itself on hard, compact soils along roadways and rail roads and even in prairie sod. These are the natural conditions which give a hint as to the kind of seed bed required. If it is necessary to plow for sweet clover the plowing should be done several months before seeding.

There are several varieties of sweet clover. The two useful varieties are the large white and the large biennial yellow. The white is biennial, also. There is a small annual yellow which is of

with the examination of seed for adulteration. For adulteration of seeds the examination is microscopic. The seed is placed under a microscope and the trained eye can at once detect whether or not the seed is adulterated. This is the examination which the Kansas Agricultural College makes absolutely without cost. Had our subscriber asked whether or not the sample of cottonseed was adulterated with cottonseed hulls or other foreign material, the examination would have been a matter of looking at it through a microscope and no expense would have been attached thereto. Again, the trained eye can detect whether or not the cottonseed meal has been adulterated with hulls. The hulls are brownish and can be easily detected. Cottonseed meal which has a bright golden yellow color is unadulterated. That which has a brownish yellow color contains more hulls than it should contain. The feeding value of cottonseed meal is dependent upon its purity. So far as we know, the feed constituents in cottonseed meal are not variable. That is to say, the cottonseed is, for all practical purposes, uniform in the percentage of protein, carbohydrates, etc., contained therein, and its value as a protein feed is reduced only in proportion to the adulteration by the mixing of hulls. What our subscriber should have asked for was an examination as to adulteration, and this examination would have indicated the true feeding value.

However, he asked for an "analysis."



FILLING SILO AT KANSAS EXPERIMENT STATION WITH LATE CROP OF SORGHUM.—LEAVES BADLY FROSTED BUT STALKS FULL OF JUICE.

little or no value. The white is generally to be preferred for general farm purposes.

Our reader is referred to the weekly issues of KANSAS FARMER for sweet clover data. Scarcely a week passes that some inquiry is not answered through these columns. Special attention is called to an article by C. C. Cunningham of the Kansas Experiment Station, in KANSAS FARMER issue of August 2, in which the whole sweet clover question as related to Kansas was carefully and conservatively reviewed. Write the Manhattan, Kansas, Experiment Station for circular No. 34, and the Federal Department of Agriculture for Farmers' Bulletin No. 458.

Made Request for Wrong Thing.

Our subscriber, T. P. S., Harvey County, writes: "In your issue of December 6, in an article regarding the adulteration of red clover seed, you state that the farmer can protect himself by sending the sample to the Kansas Agricultural College for examination as to adulteration. This recommendation sounds first rate, but two weeks ago I sent a sample of cottonseed meal to the college to have it analyzed. I received a letter to the effect that an analysis would cost \$5. I sent the money, but it has been two weeks and I have heard nothing from the sample. The company from which I bought the cottonseed meal wants me to settle with them, and I desire to hear from the college. It seems to me that this is an excessive cost for an analysis. I hardly think it good policy for you through your paper to advise Kansas farmers to spend \$5 to have their feedstuffs analyzed when as a matter of fact all the stuff they might buy would not cost as much as the analysis."

The "analysis" of cottonseed desired by our subscriber is not at all parallel

This means a determination as to the percentage of protein, carbohydrates, etc., contained in the meal. This is a chemical process and, as will be recognized by the layman, is one of considerable complexity, requiring much time. The condition, therefore, is the result of a mistake on the part of our subscriber. He asked for the wrong thing. It seems to us, however, that the department receiving the sample should have been able to surmise whether or not the party sending in the sample was really desirous of an "analysis" or whether an examination for adulteration only was wanted. This is a case wherein it seems that the exercise of discretion might have saved our subscriber a five-dollar bill.

Wisdom in Carrying Over Seed.

A number of subscribers have, upon noting our reference to Freed Sorgo or white sorghum, asked for information as to where seed may be obtained. Our subscriber who has been growing this and who originated it advises that he has no seed for sale, neither have his neighbors, among which neighbors he had distributed seed in order to so far as possible avoid any condition which might result in the total loss of the seed. He advises that there is very little of the seed this year because of the loss of the crop by grasshoppers. He states, however, that the Federal Department of Agriculture, which has distributed the seed of Freed Sorgo in New Mexico and Arizona, has made a very favorable report and it is possible that seed may be obtained from farmers in these sections. He does not know the names or addresses or even the localities in which the crop was this year grown.

Be it understood that Freed Sorgo is a new plant. It was developed on our

subscriber's farm. It has not been bred sufficiently long to produce seed true to color. To accomplish this, however, is only a matter of a few more years of selection. He says that for dry weather resistance and dry weather evasion on account of earliness, and for palatability of seed and forage, it is superior to all other sorghums. The subscriber has only a small quantity of the seed carried over from last year, and not more than he desires to plant.

What our subscriber has stated as above suggests this thought, namely, that it is the part of wisdom in every locality in which crop production is uncertain, to carry on hand at all times a year's seed supply. Too little importance has in the years past been attached to the use of the proper seeds for planting; and likewise too little attention has been given to carrying seed over from one year to another. We think possibly the latter situation has been brought about because of the feeling that year-old seed is not fit to plant. There are few seeds which, when properly taken care of, degenerate in germinating quality to any considerable extent in a single year. This is particularly true of the common field seeds.

We urge upon Kansas farmers, and particularly upon those situated in the more uncertain crop districts, to look out for their seed supply. Seed corn can be easily stored, and if at the time of storing the proper selection is made, the quantity necessary to carry over is not large—at least for the average corn grower. The big corn grower can and does take care of his seed. In the case of kafir, milo and cane, the quantity required is likewise comparatively small. This seed, however, should be saved in the head and in such condition be hung up, suspending the heads from the roof of some dry building—dry both from the standpoint of keeping out the rain and from the standpoint of the inside air. Do not store in buildings in which horses or cattle are kept.

We have all thought of and realized the advantages of carrying from year to year a supply of feed for the live stock. It is just as necessary that we carry over a supply of seeds. By this means we are certain of our seed for a year in advance and in the year when it is needed we can, as a rule, have better seed than that which was produced in the "off" year.

Dehorning Cattle.

In commenting on a recent article in KANSAS FARMER concerning the dehorning of cattle, S. G., one of our Oklahoma readers, states that he thinks it absolutely brutal to dehorn cattle by the method commonly used.

The common argument generally advanced is of course that it is better for the cattle to suffer the temporary pain incident to having the horns sawed off than to continually suffer from the brutal use of the horns by cattle possessing them.

Our correspondent thinks that we should place the blame on the man for breeding cattle with horns. He thinks it the height of folly for the breeder of pure-bred cattle to brag on the type of horns his cattle may possess. In his words, "How would it sound to a man who is going to buy some beef to hear the producer of high-bred cattle bragging about the quality of horns the animal possesses?" Our correspondent thinks there should be a tax levied on all horned animals and thus force them out of existence.

We believe breeders of pure-bred stock are awake to this matter of getting rid of the horns as useless appendages under such conditions as we handle cattle at the present time.

Most of our leading breeders of cattle now have sub-breeds of polled animals. The Polled Durham and Hornless Shorthorn are now becoming fairly well established. The Polled Jersey and the Polled Hereford are also making considerable progress as breeds. Getting rid of horns in this way is a slow process. Greater headway could perhaps be made if more of the breeders of market cattle would insist on having hornless sires to head their producing herds.

It is noteworthy that the breeders of Polled Durhams are finding little difficulty in disposing of their bulls. This is one indication as to the demand of hornless blood by those who prefer the Shorthorn breed.

Here's a Real Plow

Here's a plow that has taken the farm world by storm. It's wonderful the way it "walks" right through stubble, tame sod, trashy corn-stalks, tough gumbo, heavy clay, etc., and turns the slice clear over flat and smooth. It'll bury all the trash and cover better than any plow ever made. Leaves no air spaces to cut off the moisture from the subsoil. This means real drought protection. It's the only plow that leaves no crop-killing air spaces. This plow, the C.T.X., is as far ahead of all other plows as the modern harvester is of the old-fashioned hand scythe. Costs about the same as ordinary plows. Get the facts. Write right now for most complete plow booklet ever published.

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Electric Gear Shift.

The gasoline motor car comes near being an electric car. The latest trick is the shifting of gears by pushing a button—the gear shift being electrically controlled. The Haynes organization—which uses the shift—sums up its advantages as follows:

It is unnecessary to remove the hands from the wheel while driving.

The driver may always anticipate his speed change before he throws out his clutch pedal.

The clutch is always fully disengaged and the gears are always drawn to neutral mechanically before a shift is made, thus rendering it impossible to strip a gear.

The rapidity with which gears may be shifted in crowded traffic makes this device almost indispensable in congested city streets.

It completes the electric control of the Haynes car, equipped as the Haynes is, with an electric starting and lighting system.

The boycotting of eggs has been inaugurated in several large cities, New York, Chicago, Philadelphia and Topeka being among the number.

NATIONAL GRANGE NOTES

VARIOUS resolutions were adopted by the National Grange, as follows:

1. Full equal suffrage was endorsed by the Grange.

2. The preparation of an official group picture of the founders of the order was authorized.

3. The protection of migratory birds was favored and the secretary authorized to convey this information to President Wilson.

4. The monopoly of the water powers of the country was looked upon with apprehension, and Congress and the several state legislatures were urged to enact laws to prevent such monopolies.

5. The Grange advocated the establishing of a Lincoln Industrial School instead of the building of a monument at Washington to the Statesman Lincoln.

6. The Grange favored the enactment of a law to amend the constitution of the United States so as to prohibit the manufacture and sale of intoxicating liquors and to submit the same to the several states for ratification.

7. The loan of money deposited in Postal savings banks directly to farmers and home builders at a low rate of interest was favored by the Grange.

8. Relative to the rural credit commissions sent to Europe last summer, the Grange signified its regret that the membership of the commission was not representative of the farmers of the country or calculated to inspire confidence in any report that they may make.

9. To memorialize the President of the United States and Congress to investigate the operation of our copyright and patent laws so far as they operate to restrict legitimate competition or foster monopoly, and further investigate the advisability of revising the patent laws to the end that inventors may be properly rewarded without inflicting an undue burden upon the public.

TRANSPORTATION.

In view of the fact that the Interstate Commerce Commission is considering the feasibility of increasing the freight rates over New England lines, and, further, that the steamship lines between New England and European ports have in the past seven years increased their freight tariff on apples and other farm products more than 40 per cent, and as a further increase in rates is being considered, the National Grange protested against such increase in freight tariffs either on railroad or steamship lines, and recommended that the State Granges urge the subordinate Granges and individual members to use their influence against it.

TAXATION.

Personal property has equal protection under the law and for that reason should contribute toward the support of government. Assessing all tax upon land would work a still greater hardship upon the farmer than the present unjust method of taxation. There is no remedy under existing statutes but a solution of the problem may be found in uniform tax laws in all states of the Union so there shall be no tax dodging possible by moving from one state to another. A tax on incomes properly levied, the Grange believes to be the most just and equitable plan yet devised. If the National Government can uncover the vast millions that have heretofore escaped taxation it would seem to be an opportune time for the states to take up this matter and assess these millions to the end that the farmer and other real estate owners may be relieved, in a measure, from these unjust and iniquitous burdens.

RURAL CREDITS.

The Grange asserts that any legislation for the purpose of bettering farm credits is a part of the great national policy of conservation of food supplies and that as such the government should itself carry out this policy, and it cannot be properly delegated to private capital for general exploitation and profit. The committee further said that any farm credit association which shall receive any privileges by, or under, federal or state laws should be composed of farmers and not of capitalists who have heretofore dominated agricultural credit and created conditions which now demand relief. Any farm credit plan which does not include a direct reduction of the prevailing rates of interest, as well as provide for a long term of small annual payments upon farm mortgages, will not meet agricultural requirements, and, further, the Government of the United States should borrow money at a rate of interest not to exceed 3½ per cent and lend money at a rate not to exceed 4½ per cent to the farmers upon long time farm land mortgages.

The sum of \$100,000 will be retained

in the treasury for permanent investment and such surplus over said amount as may accrue after payment of running expenses and salaries will be placed at the disposal of the executive committee to be used for extension work as follows: Not exceeding \$2,000 to be expended in each state entitled to representation at this session in co-operation and with the approval of the masters of states where used. Not exceeding \$5,000 for extending the order in states not now entitled to representation in the National Grange.

GOOD ROADS.

The Grange declares that the roads needed first are those which put the farmer in close touch with the trading centers and enable the producer and consumer to reach each other quickly, inexpensively and easily, and save the farmer much money in the cost of haulage and enables the consumer to receive a share of the benefits; and while the scenic road advertises the state, the interior highway develops its resources, the former are desirable when they can be afforded but the latter are indispensable. The Grange is in opposition to the many bonding schemes advanced by those seeking touring roads, believing that the pay as you go policy is far more businesslike. Roads are local affairs and their control should remain with the state and the people in whose midst they are. The national and state governments should provide general standards of roads toward which aid is given and protect themselves by inspection and a refusal to make payment for any road falling below specified standards.

Legislature Committee.

At Anderson County Grange convention a senator who had recently become a Granger made the statement that "while the last legislature was in session, laws which were detrimental to the farmer were proposed and that while every other interest under the sun had men there through whom an alarm could be sounded to the interest effected, that no one was there to represent the farmer, and no way in which he could reach any organization of farmers." What about our Legislative Committee? Is it not their duty to hang around the legislative halls when the legislature is in session and act as a live wire between that body and the Grange?—A. B. H.

Selections from Journal of Proceedings.

The following pertinent excerpts from the 41st Journal of Proceedings are furnished by A. B. H.:

You must remember that insurance is not all of the Grange, and that the great question of co-operation is attracting the attention of all people. Opportunity is knocking at the door of agriculture now; the great body of consumers are growing more numerous while that of the agriculturalist is growing less, and the great problem of the future is not of a partisan nature, but of a hungry people clamoring to be fed within their means. The Grange realizes this fact and is looking after these important features, and those of our membership who joined the Grange for insurance alone had better use their best endeavors in building up the Grange for what there is to come to them along other lines, and I can assure you that the insurance will take care of itself.—Insurance Committee.

It is too bad that Kansas, through State Grain Inspector Ross, finds it so difficult to enforce the Kansas grain inspection law. However, when it is remembered that the Kansas City and Wichita boards of trade have, through the concerted effort of all members, fought this law, it is at once apparent how much up-hill the fight must be to enforce it. Inspector Ross recently filed charges against a Kansas City grain company which sold corn to a Thayer, Kan., farmer, which corn graded number three but was represented as grading number two. It was represented to the purchaser that Kansas did not maintain grain inspection at Kansas City and under this misrepresentation endeavored to make the board of trade grading apply. Kansas does maintain grain inspection at Kansas City, and this is a pointer to all buyers of grain on that market that the purchases be made subject to Kansas inspection. With this requirement the grain will be inspected by the Kansas authorities. Kansas farmers are at this time buying hundreds of carloads of corn monthly through Kansas City and Wichita, and the purchasers cannot afford to overlook the stipulation that Kansas grading applies thereto.

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Straight Talk on Plows—No. 2

The first part of your plow to wear out is the Share. No other part of a Plow is of so much importance in the matter of draft, as the Share.

Until a few years ago all plow shares were practically alike. They were bought in the open market—three-ply steel—one soft layer sandwiched between two hard layers—all welded together. When new and hard they held a good cutting edge, but when the temper was drawn to re-sharpen them, it could not be put back without expensive ovens and a refrigerating plant. Then, too, they were easily broken—requiring a new Share.

A few years ago a steel manufacturer of Chicago discovered a process for making soft-center steel from one layer instead of three, which can be safely re-tempered any number of times.

By a secret process known to and used only by the one manufacturer (now the Moline Plow Co.) the outside surface—one-third through from each side—is as hard as the hardest steel, yet the center is soft and fibrous.

This makes a Steel Share tough—tougher than the steel plate used on U. S. battleships—a steel which will stand jars and strains that would break ordinary three-ply steel into fragments. It makes a steel share which can be successfully re-tempered any number of times by the Farmer or his Blacksmith.

These wonderful Shares are

ACME STEEL SHARES



Repeated blows with a heavy hammer fail to break ACME Shares.

Any Farmer can keep an ACME Share as hard and sharp as new—keep a keen cutting edge on it, as long as the share lasts—and with a bonafide guarantee that the Share will not break in the field or when re-tempering.

The factory which manufactures them, together with its secret process, is owned by the Moline Plow Co., and it is now devoted exclusively to making ACME Steel Shares and Moldboards for Moline Plows.

More than one million farmers are today using ACME Steel Shares and Moline Plows.

They are using them because they find them easier on their teams—do not have to be sharpened as frequently as others—have perfect scouring qualities and cost no more than others.



One blow with a light hammer breaks other Shares.

You should demand ACME Shares, and insist on your blacksmith hardening them after sharpening.

Your FLYING DUTCHMAN Dealer sells the BEST EVER and other Moline Plows with ACME SHARES. See him, and write us for our

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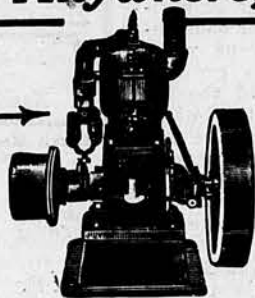
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all-season engine. Does all the work any 4-H. P. engine does and much that no other engine can do.
Operates any binder. Churns, runs the separator, grinds, pumps, washes, etc. Weighs under 200 lbs. Easily moved to where you have work to do.

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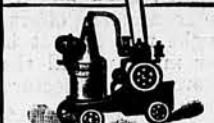
"Used it on 7-inch burr mill—walked away with it."

"Am running an 8-inch I. H. C. grinder, also churn, washer, separator."

"Cut as much wood in six hours as my neighbor did with his 6 H. P. in seven hours. His engine weighed 1000 lbs. My Cushman weighs 190 lbs."

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THE surest method of encouraging the production of beef is to make it profitable to those who are engaged in it. The chief reason for the present shortage of beef cattle is found in the fact that it had proven to be unprofitable to producers through a long period of years. The result was the liquidation of breeding herds. The opposite factors from those which prevailed during the dispersal of our beef breeding herds are present today and will cause a rehabilitation of the beef cattle breeding industry in Kansas and in every other state.—W. A. COCHEL.

THE FARM



The colored farmers of Kansas held their annual conference in Topeka last week. Their organization is known as the "Sunflower State Agricultural Society." The entire range of agricultural practice was discussed at this meeting. A number of prominent negro educators were present, and notably among them was Prof. George R. Bridgeforth, Director of Agriculture of the Tuskegee Institute, which is Booker T. Washington's school. The colored man is gradually gravitating to the farm. The leaders of his race in this country are urging farming upon him. There are many colonies of successful negro farmers in Kansas and Oklahoma. It occurs to KANSAS FARMER that the leaders of the race are wise in promoting agricultural education and presenting the advantages and the adaptability of agricultural pursuits to their people. At the above named conference G. C. Wheeler, associate editor of KANSAS FARMER, talked on the silo and the use of silage. This subject was assigned him, and the interest shown was such as indicated much interest in the subject.

It has been figured that there are three million acres of land in the western one-third of Kansas, which can be profitably irrigated by pumping from the underflow and which water is less than 60 feet below the surface. The development of this area would, beyond question, make Kansas one of the foremost irrigation sections of the country. We believe, too, that the time will come when irrigation by pumping from this same underflow will be practiced to a very considerable extent. However, we are not enthusiastic on the point of irrigation giving immediate relief. It may be many years, at best, before this development can be made. We cannot afford to wait for it. In the meantime the settler of the plains must live and must be building a permanent and a prosperous home. The plains settler will reach irrigation just so soon as his financial condition will permit. For many years to come the principal irrigation from overflow will be limited to the watering of a small area compared with the total acres owned and the farming of which is a necessity. The plains settler must give attention in the meantime to those principles of moisture conservation, crop rotation, the use of dry weather resisting forage and grain crops, and the marketing of these crops through live stock of one kind and another. By this means he will be able to develop his irrigation enterprise to such extent as is regarded advisable. It is far from our disposition to dampen the ardor of any irrigation enthusiast, but it is our belief that we cannot wait for the development of irrigation. In the meantime we must do the other thing and through which the hope for success is such as to warrant a careful trial.

The seeding of alfalfa in rows in the western one-third of Kansas and in Eastern Colorado has had some attention by farmers. To this time, however, the experiments have not been satisfactory, and in most instances have given little encouragement. However, as has been reported in KANSAS FARMER from time to time, there are occasional farmers in these sections who are entirely satisfied with the results obtained from row seeding. It pleases us to note that W. A. Boys, the demonstration agent for that district composed of those counties along the main line of the Union Pacific from Ellis County west, has sufficient confidence in row seeding of alfalfa to interest a number of farmers in his district in the method. As is common to the demonstration plan, the farmers who will undertake such seeding will prepare the ground, seed the alfalfa and care for it as directed by the demonstration agent. The nine or ten men who have undertaken the demonstration will plant a total of 150 acres. This will be seeded with good upland alfalfa seed. On each farm will be seeded a check plot sown broadcast. This to show the results obtained by the two methods. Readers of KANSAS FARMER will recall that those successful growers of alfalfa in rows have found it necessary, and in fact attribute their

success to the clean cultivation of the field. They attribute failures of row seeding to the lack of cultivation and the crowding out of the alfalfa by weeds and grass. The western grower of alfalfa who depends upon rainfall for moisture must not expect the same high tonnage yields as compared with yields obtained in regions of greater rainfall. The western farmer, however, must compare the alfalfa yield with the constituents of feed obtained through other forage crops he is able to grow. The comparison should be made largely on the basis of the protein provided and needed, and when making this comparison he must recognize the necessity of protein as a balance for the other roughages. We think in the final analysis it will be shown that the return from an acre of alfalfa-producing land on the plains of the West—measured by the need of protein and not acre yield in tons—will establish its need. There is another feature of alfalfa cultivation to be taken into consideration, and that is the matter of its value in a rotation scheme for Western Kansas. Row seeding of alfalfa deserves a careful trial on all lands in Kansas on which moisture is limited.

It is not unusual to hear the remark that the farmers' institute, the agricultural paper, the agricultural college and other institutions the design of which is for improved agricultural conditions, have little if any effect in bringing about such object. However, the man who has traveled throughout Kansas the past 15 or 20 years and who can compare conditions today with those of the former times cannot help but see on every hand the wholesome effect of such agencies. This was demonstrated at a farmers' institute in Wabaunsee County a few weeks ago. The question was asked, how many farmers had selected their seed corn for 1914. Of the 30 corn raisers present, 20 had selected their corn and 10 had not. We will guarantee that 10 years ago no such showing as this could have been made. In fact, it is doubtful if as late as five years ago one farmer in ten in any community had selected his seed by November 1 of the year preceding that in which it was to be planted. It may be that the percentage in this Wabaunsee community is larger this year than other years because of the scarcity of good seed and the probable market of surplus seed at good prices. However, the "select your seed corn early" campaign was projected in advance of the ripening of corn this year. This, beyond any question, has had its effect on hundreds upon hundreds of communities to the same extent as in this Wabaunsee County community.

Not long since we discussed the cattle situation with a small grower of feeder cattle. He was panicky over the results which he thought he could foresee through the importation of stock from other countries under the new tariff law. He was certain that thereby the prices on cattle and on beef will be lowered. It occurs to us, however, that there is no justification for alarm over present conditions and no serious damage threatens the cattle market. KANSAS FARMER readers who have been following the market articles appearing in KANSAS FARMER and which are prepared by our Kansas City correspondent—who, while not associated with any packer, firm of cattle commission salesman, or any other line of the packing and cattle industry, nevertheless is close to the real situation as viewed by packer and dealer in live stock—will have noted that in his opinion no serious damage threatens the cattle industry in this country. It must be borne in mind that there are other countries of large population which countries do not produce their own beef and consequently are large import markets, therefore, those exporting beef and cattle countries cannot and will not center their surplus in the United States. It appears that the constantly increasing millions of people in this country can take care of all the surplus beef that outsiders have to offer at a price which the consumer can afford to pay. It is our part in this country to concern ourselves in the economical production of beef. In the past it

has not been produced as economically, generally speaking, we think, as it could have been. It is for the American farmer to feed the American people at a price this people can afford to pay for the commodities it consumes as food. Just as sure as the world moves, if the American farmer does not feed the American people at the prices the consumer can afford to pay, then he must expect that the consumer will make an effort to secure his supplies elsewhere. There is, however, a phase of the meat situation—as well as that pertaining to eggs, butter, flour, and every other necessity of life—which must be considered by the consumer, and that is the matter of so handling himself as to reduce to a minimum the distribution expense. There is another phase, and that is the matter of middlemen's profits, which can partially be controlled by the consuming public, but the principal control of which must come through federal authority. In other words, if between the producer and the consumer there is a set of handlers who are growing rich because of the low prices at which the commodity is sold, this becomes a matter of federal regulation. Investigation has not yet established that there are such conditions existing between the producer and the consumer, but there is a strong suspicion of such condition, and the situation relative to the cost of living at present is such as will ferret out the facts, and when the facts are ascertained we have sufficient confidence in our federal government to believe that an adequate remedy will be supplied.

Silos Needed in Ness.

The Utica Enterprise, published by Earl Hoffer, hands out this line of

or more per pound for seed which would otherwise sell for from 12 to 20 cents per pound, and inasmuch as the ordinary seed is not as hardy as Grimm, the first severe winter may kill the entire crop, and so the farmer who thinks he has bought Grimm seed not only loses his labor and the crop on his land, but the cost of seed at a high price.

It is difficult to detect substitutes for Grimm in the seed, and farmers are urged to buy Grimm only from reliable dealers who can trace the seed back to its source. In many cases the seedsman and retailers are not deliberately perpetrating a fraud, as they have purchased the seed for Grimm and sell it in the belief that it is Grimm.

Similarly it is found that for the dry land regions where the winters are severe and there is little snowfall and comparatively little moisture, the northern alfalfa seed grown in cold regions on dry land is especially useful. Much of this seed comes from Montana and it is found that unscrupulous dealers have been selling seed raised under irrigation in that state as Montana dry land alfalfa seed.

Numerous tricks are employed in the substitution and adulteration of alfalfa seed. Our recommendation is that the seed be purchased from reliable seedsman and dealers who are able to state when and where the seed they sell was procured and who will vouch for its having been kept in the condition in which it was received from the grower.

Strong for Ponds.

I was disappointed when Governor Hodges called off his pond week, for the water question is vital.

Forty years ago when I settled on

NOT FOR NESS COUNTY ALONE

The wheat crop may or may not make, but the milk cow, the silo and hen are sure things.—Utica (Ness County) Enterprise.

straight talk to its readers: "After all, silo building is a bigger and more portentous subject and of greater moment to this part of the state, its citizens and its permanent interests, than getting in the wheat crop, though it could well be laid aside until that was accomplished. For this section can not expect to rely for maintenance or prosperity on its wheat crops, though it should not fail to take advantage of favorable conditions to make an effort to profit by them, and it may reasonably expect a fair measure of prosperity through the intelligent use of the silo, which presents in a large measure the solution of the problem of converting our average run of products into profitable assets. They and the lines of industry associated with their use are what we must depend upon to bring about the proper development and improvement of the country and make it a safe proposition to those who will give their energies to its reclamation and to making its idle acres into communities of homes. The new agriculture is essential to this transformation and the silo is a fundamental factor in it, especially under the conditions that exist here. It is to be regretted that no more progress has been made in the construction of silos than has so far been made, but with the start we have it is probable progress will be much faster in the future if the importance of the matter is not lost sight of. There ought to be a silo on every farm ready to take care of next season's crops, and it should be seen to that the crops are raised to fill them. This, of course, couldn't be done the past season, but there is no reason to anticipate that it cannot be done next year."

Alfalfa Seed Substitutions.

Large quantities of ordinary alfalfa seed are being offered for sale under the name of "Grimm Alfalfa." The attendants of the Federal Department of Agriculture display at the Tulsa Dry Farming Congress a few weeks ago were specially urging farmers to look out for this substitution. In this display, by the way, the government presented many interesting studies regarding the adulteration of alfalfa seed and the misrepresentation surrounding the trade in such seed. It was also stated that large quantities of irrigated alfalfa seed are being sold as northern-grown dry land seed. It was shown that in many cases such seed was not even domestic seed but was wholly or in part imported Turkestan seed. This practice of selling other seed for Grimm results in the farmer paying from 40 cents to a dollar

this farm all the creeks—and they are only three or four miles apart—were good running streams, and promised an abundant supply of water. I was here fifteen years before the creek on my farm stopped running, and it stopped running then only for a short time during the summer. This is the first year since I have been here that the creek has not raised and run at this time of the year. Wells that never have been dry are going dry and each year water is becoming more scarce.

How can the water supply be maintained? This can be done only by damming. If the state and counties do not take hold of the situation and the people help to put in and keep up a number of dams, in a very few years the water supply will be gone.

A very few farmers have ponds, but these farmers can dig wells anywhere around the ponds and get plenty of water. There should be three or four big ponds in every township, and hundreds of little ones.—A. DUBOIS, Agra, Kan.

Kansas Traveling Library.

Several subscribers have recently written asking how they can obtain the Kansas traveling library for their communities. The interest in this library seems to be such as to warrant reference through KANSAS FARMER. If interested subscribers will write Kansas Traveling Library Commission, care State Capitol, Topeka, Kan., they will obtain full information as to how the library can be had, the terms of its usage, etc.

Bloat Remedy from Missouri.

Our subscriber, W. S., Salem, Mo., submits this remedy for bloat in cattle: "Drench with borax. It causes the animal to belch and so the accumulated gas passes off. Rub and press upward under the body, with a plank or board, with one man on each side of the animal. This will assist the animal in discharging the gas."

He adds further: "I like KANSAS FARMER. It is a most excellent paper and ought to be read by every farmer and stockman in Kansas and Missouri. We in our neighborhood are long on growing on our farms all the vegetables, fruit, molasses and live stock products needed for family use. I believe that every farmer everywhere can provide fully 90 per cent of his table necessities from his own garden and farm if he will. So to do helps along greatly in conserving the profits of the farm. I keep 125 head of sheep."

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Stumps cost you too much money. Pull them out! Get a Hercules. Now is the time. I'm making a very special sacrifice-price offer. Only a few men will get in on this proposition. Never such an opportunity before. Same 30-day free trial offer—same 3-year unqualified guarantee against breakage. Write me!

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LIVE STOCK



Few Fattening Cattle on Kansas Feed Lots.

Very few cattle are being finished for market in Kansas lots the present season. There has been a strong disposition all along the line for feeders of cattle to unload. Many having bought feeders last summer at high prices have become discouraged with the conditions which have prevailed.

High-priced corn invariably tends to force the early liquidation of full fed cattle. As long as this disposition exists, with so many feeders cashing in, packers will undoubtedly be able to keep the prices at their present level. With the great scarcity of beef which exists all over the country this condition cannot be permanent, however.

Farmers who have been forehanded enough to accumulate reserve of rough feed, especially in the form of silage, are fortunate indeed. Under these conditions cattle can be carried over and be on hand for the next year's grass and ready for finishing when a new crop of corn is available.

Feeders and handlers of cattle must plan to have a more permanent, dependable feed supply in order to take advantage of such conditions as exist this season.

Silage on the Pure-Bred Farm.

G. A. Laude, one of our Woodson County pure-bred breeders, writes us that he has opened his silo and is now feeding to the cattle of his pure-bred herd 30 pounds of silage daily per animal, and one pound of a mixture consisting of equal parts of cottonseed meal and linseed meal. These cattle are also getting a good feed of badly damaged dry fodder. There was absolutely no grain whatever in this silage, the crop having been harvested in a very immature condition.

Mr. Laude says the cattle show a noticeable thrift in their general appearance and are making a fair gain in their weight. He notices also that they eat the damaged fodder better than they would if they were not getting silage. His observation is that this limited amount of silage actually stimulates the capacity for inferior roughage. Increasing the capacity of cattle for consuming the low-grade roughage of the farm is a very important factor under present day conditions.

This same fact was observed in the experiment in wintering cows at the Hays Station last year. These cows consumed considerable quantities of wheat straw in connection with their silage ration.

Silage For Hogs.

We have been asked by F. J. W., one of our readers in Edwards County, whether silage has ever been used for fattening hogs. This reader would like to know whether heavy seeded crops of feterita would not take the place of sorghum or alfalfa pasture for hogs.

Silage has been used for feeding hogs but too much should not be expected of it for this purpose. Silage is essentially roughage feed and it cannot be used as a substitute for grain in ordinary feeding even though a crop carries a heavy amount of grain. A ton of the resulting silage would contain not to exceed three or four bushels of grain.

As a winter substitute for pasture silage is a good feed for hogs, although they will not eat very large quantities of it in comparison with the amount consumed by ruminant animals.

Alfalfa is especially valuable because it contains a relative amount of protein. Such crops as sorghum, kafir, feterita, or corn, even though used in the green, succulent condition, will not supply sufficient amount of protein to give the best results. The man having silage should always see that his hogs receive a portion during the winter season. It will keep them in thrifty, healthy condition, and will to a certain extent take the place of the pasture crops of the summer.

Seven-Cent Hogs and 95-Cent Corn.

W. L. H. writes us from Reno County, Kansas, asking us to advise through our columns as to what we think about the hog proposition this winter with corn at 95 cents and pork selling at 7 cents.

There is certainly not much encouragement for the finisher of pork under the conditions prevailing at the present

time. The "Trend of the Markets," as furnished exclusively for KANSAS FARMER by our special market correspondent, took up this matter of the hog market in our issue of October 25.

The packers have undoubtedly followed their usual tactics in hammering down prices this season of the year as much as possible. The extremely high prices of grain which have forced premature marketing of many hogs has been of great assistance to them in accomplishing this purpose.

The feature of this fall's hog run has been the lighter weight of hogs coming to market. During the month of November the hogs arriving at Kansas City averaged in the neighborhood of 178 pounds, which is 28 pounds per hog lighter than the run of November a year ago. This run of light weight hogs is but a reflection of the situation as to the corn market. Many of the hogs being marketed are really not finished, and this, in connection with the lighter weight of the hogs marketed, undoubtedly means that the total amount of the stored products will be considered less than under normal conditions as compared with the total number of hogs marketed.

This draining of the country of its hog stock will undoubtedly result in there being a great shortage of hogs next spring, and it is our opinion that the present low price cannot be held at its present level very much longer.

I would suggest that KANSAS FARMER readers interested in this matter of the hog market turn to our issue of October 25 and read the article appearing on page 2 of that issue. In our issue of December 6 also will be found some valuable suggestions on the condition of the hog market.

Protecting Hogs from Cholera.

We are asked by our reader, F. S., of Osborne County, for information through the live stock department on vaccination of hogs as a protection against cholera. Our correspondent should secure a copy of Bulletin No. 182 from the Kansas Experiment Station, entitled "Vaccination Against Hog Cholera." This bulletin can be secured by addressing the Director of the Experiment Station, Manhattan, Kan. A request sent to the United States Department of Agriculture for bulletins on hog cholera will also bring literature treating on this subject.

The serum will cost in the neighborhood of \$1 per head to vaccinate a shoat weighing from 100 to 125 pounds. The serum alone gives temporary immunity only, and is used mainly in the vaccination of herds which it is desired to protect for only a short period of time.

In the simultaneous vaccination, which is necessary to give permanent immunity, virulent blood or virus is used. No one can use this without authority from the State Live Stock Sanitary Commission with the exception of the veterinarians connected with the Agricultural College. It is always best to have a skilled man to do the vaccinating, even though the serum alone is used.

There are a good many plants now manufacturing serum for vaccinating hogs. There has been much fraud practiced in this business, but at the present time the federal government has established a system of inspection which compels these plants to be handled in a far more satisfactory manner.

Many of our farmers do not realize the work that has been accomplished at the Kansas Experiment Station in manufacturing and distributing of the cholera serum.

More than 300,000 hogs have been saved during the last few years in Kansas by the use of anti-hog cholera serum. Kansas was one of the first states to produce an anti-hog cholera serum, and, up to date, the veterinary department of the Agricultural College has sent out more than 16 million cubic centimeters of serum. The Kansas serum plant is one of the largest in the world. It makes more than one million cubic centimeters a month, or enough serum to vaccinate about 20,000 hogs weighing 200 pounds. Serum is sent to all parts of Kansas, and into seven other states. A reserve of one-half million cubic centimeters is kept on hand by the veterinary department to be used

35 BUSHELS PER ACRE was the yield of WHEAT

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on many farms in Western Canada in 1913, some yields being reported as high as 80 bushels per acre. As high as 100 bushels were recorded in some districts for oats, 50 bushels for barley and from 10 to 20 bushels for flax. J. Keys arrived in the country 5 years ago from Denmark, homesteaded, worked hard, is now the owner of 300 acres of land. In 1913 he had a crop of 300 acres which will realize him about \$4,000. His wheat weighed 55 lbs. to the bushel and averaged over 35 bushels to the acre. Thousands of similar instances might be cited of the homesteaders in Manitoba, Saskatchewan and Alberta. The crop of 1913 was an abundant one everywhere in Western Canada. Get for descriptive literature and reduced railway rates. Apply to Department of Immigration, Ottawa, Canada, or Canadian Government Agent. Geo. A. Cook, 125 W. 9th St., Kansas City, Mo.

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Don't take chances with spavin, splint, curb, ringbone, bony growths, swellings or any form of lameness. Use the old reliable remedy—

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Its power is testified to by thousands of users. At druggists \$1 a bottle; \$5 for \$5. Ask your druggist for book, "Treatise on the Horse." Write Dr. B. J. Kendall Co., Enosburg Falls, Vt.

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We manufacture all sizes and styles. It will pay you to investigate. Write for catalog and price list.
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Tag your stock—best and cheapest means of identification. Name, address and number stamped on tags. Only \$1.00 per hundred and up. Catalogue and samples free on request.
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in case of a sudden outbreak of hog cholera within the state.

Because of the crowded condition of the present serum plant, the work of keeping the pens clean is much greater than it should be. Also, the operators are somewhat hindered by their laboratory equipment. To continue the present production of serum, and maintain sanitary conditions, it is necessary that some improvement be made. The college has decided to build a new plant which, when completed, will be one of the best equipped plants in the United States. Work has been begun on the new plant.

The new serum plant is to consist of a two-story brick building for the laboratories and office, a crematory for burning all refuse and carcasses, and hog pens. The site selected for the plant is about three-quarters of a mile north of the college campus. It will be connected with the college water system and will have a large cement water tank for reserve. The cost of the entire plant is estimated at \$10,000.

The building is to be 60 by 24 feet, and will be heated by steam. The first floor will be used for laboratories, and an inside pen for convenience in hyper-immunizing and bleeding the hogs. The laboratories will have cement floors and white enameled tile walls; both distilled and tap water will be available. The office, also, is on the first floor. The second floor is for laboratories and storage rooms. The basement will be used for the furnace and a cold storage room for keeping serum. Work is now in progress on this building.

Dishonest Veterinarians and Tuberculin Control.

In the Farm and Fireside in a recent issue Dr. C. W. McCampbell, Secretary of the Kansas Live Stock Registry Board, discusses at considerable length the cause for dishonesty and unfitness among veterinarians. As the two chief causes Doctor McCampbell seems to think that the lack of the proper appreciation of honest, capable services by the farmers is one of the chief causes leading up to unfitness on the part of some of our veterinarians. This tendency of the farmer to buy poor veterinary services really tends to create a demand for quacks and tricksters. Another chief cause for this condition he attributed to the failure on the part of many of the veterinarians to make the interests of the farmer their interests. It is undoubtedly true that there is no such high standard of ethics held to by the veterinarian profession at the present time as prevails through the medical profession at large. The tendency is in that direction, however, and the veterinarian is more and more coming to take his place as a reputable member of society.

Dishonest, unprincipled men have undoubtedly gained entrance into the ranks of the veterinarians. In connection with the matter of applying tuberculin tests there has been an immense amount of dishonesty practiced. This has perhaps had as much to do with the reluctance of many farmers and stockmen to accept the tuberculin test as any one thing. Here in Kansas we have had numerous shipments of cattle from other

states, accompanied by certificates purporting to be those of qualified veterinarians showing the freedom of the cattle from tuberculosis.

It would appear that the only protection the Kansas buyer had was to investigate most thoroughly the honesty and reliability of the men from whom they purchased the cattle. In the state of Illinois this practice became so serious that surrounding states even went to the extent of petitioning the federal government to place a quarantine against this state on account of the many fraudulent test certificates issued by local veterinarians. One branch line railroad even refused to accept shipments consigned to certain states without federal inspection.

The sanitary authorities of Illinois are now offering a new form of help in their effort to clean up Illinois herds from tuberculosis. This plan in brief is to establish what are known as state accredited herds. Dr. O. E. Dyson, the new state veterinarian, proposes this plan in order to promote confidence in the healthfulness of cattle in the state and to satisfy the demands of other states from which shipments are practically barred at the present time. The State Sanitary Board of Illinois has decided to officially "recognize as being free from tuberculosis every herd of pure-bred cattle within the state coming within the provisions set forth in the form of an agreement between the owner and the state board under which an authoritative standard of health must be permanently established and easily maintained without depreciating in the slightest degree the actual value of any herd." It is to be hoped that under the provisions planned the more progressive cattle breeders of the state will have an opportunity to realize an increase of at least 25 per cent of the present value of their herds. If the progressive cattle owners of the state are willing to adopt this proposed plan of official recognition, the board will use their best efforts to secure the co-operation of the state live stock sanitary boards of other states so that these progressive cattle owners may have unrestricted movement of their cattle throughout the United States.

In order to place a herd in the state accredited list it will be necessary for all the cattle in the herd, including calves under six months old, to be subjected to a tuberculin test officially administered, and in addition each animal must pass a thorough physical examination by a competent veterinarian.

If the progressive breeders of Illinois take up with this plan they will in the course of time relieve this state from the present situation which exists owing to the condition of its dairy cattle. It will very soon be seen that the ability to advertise a herd as "state accredited" will give the breeder great prestige in the selling of his stock to other states. A similar method of handling tuberculosis may become necessary in Kansas.

The legal standard for whole milk in Kansas is: Total solids, 11.75 per cent; solids, not fat, 8.5 per cent; fat, 3.25 per cent. Skimmed milk must contain 9.25 per cent total solids, and cream must contain 18 per cent of butter fat.

KANSAS CROPS AND PRODUCTS IN 1913

The yields and values of the year's crops and products, as reported on Thanksgiving Day by the Kansas Department of Agriculture, are as follows:

Products—	Amount.	Value.
Winter and spring wheat.....	bus., 72,458,051	\$ 56,375,410
Corn.....	bus., 18,420,052	13,378,475
Oats.....	bus., 28,125,677	11,842,570
Rye.....	bus., 563,383	414,306
Barley.....	bus., 1,779,002	888,650
Emmer ("Speltz").....	bus., 7,092	3,514
Buckwheat.....	bus., 476	428
Irish and sweet potatoes.....	bus., 3,254,293	2,738,032
Castor beans and tobacco.....	.....	.....
Flax.....	bus., 240,435	259,712
Broom corn.....	lbs., 6,020,550	299,108
Millet and Hungarian.....	tons, 90,856	691,835
Sugar beets.....	tons, 55,011	300,026
Sorghum for syrup.....	gals., 254,800	127,400
Sorghum, kafir, milo and Jerusalem corn for forage.....	.....	17,200,466
Tame hay.....	tons, 1,692,655	18,526,768
Prairie hay.....	tons, 1,061,297	9,410,547
Wool clip.....	lbs., 367,880	73,576
Cheese.....	lbs., 69,897	11,482
Butter.....	lbs., 44,622,671	12,560,469
Milk sold, other than for butter and cheese.....	.....	1,246,428
Poultry and eggs sold.....	.....	11,041,950
Animals slaughtered or sold for slaughter.....	.....	80,604,877
Horticultural and garden products.....	.....	3,299,639
Honey and beeswax.....	lbs., 484,415	73,756
Wood marketed.....	.....	87,488
Total value.....	.....	\$241,466,375

NUMBERS AND VALUES OF LIVE STOCK.

	Number.	Value.
Horses.....	1,039,860	\$103,185,300
Mules and asses.....	242,398	30,299,750
Milch cows.....	862,906	48,322,738
Other cattle.....	1,551,782	58,967,716
Sheep.....	196,151	882,680
Swine.....	1,637,365	18,011,015
Total value.....	\$265,669,197
Grand total.....	\$507,135,554

*Product of 1912.

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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.

GOVERNMENT FARMERS WANTED.—Make \$125 monthly. Free living quarters. Write Ozment, 44F, St. Louis.

WANTED—MAN AND WIFE PAST 40 years old without children to keep house for bachelor on farm. Address Lock Box 81, Conway Springs, Kansas.

MEN WANTED TO LEARN BARBER trade. Term not limited. Tools free. Call or write. Topeka Barber College, 327 Kansas Ave., Topeka, Kan.

MEN FOR ELECTRIC RAILWAY MO-tor men and conductors. Fine opportunity; about \$80 monthly. Experience unnecessary; no strikes; state age. Address Box M, care Kansas Farmer.

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

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DAIRY



Butter dealers seem to think that the recent reduction in the tariff on butter will not affect the finer grades of butter produced in this country, but is likely to have a marked effect upon the value of the poorer or under-grades. If this guess is correct, it means that the standard of butter quality in the United States in general must be raised. The quality of our butter now is generally good from a strictly commercial standpoint, but there is a considerable per cent of under-grades, which, while selling well now, might be crowded out of the market by imported goods.

An Illinois farmer writes: "We hired a man once because we noticed that he spoke pleasantly to his team. It was a small thing, but the straws show which way the wind blows. He stayed with us three years—only left to go onto a farm of his own—and all that time we never heard a curse, or saw a blow struck in anger. The stock did better during those three years than it had done for a long time. The cows looked more thrifty, the horses grew less skittish and restless, and even the young stock settled down into regular, sober habits. Did it pay? Try it yourself and see."

I. D. Graham, formerly one of the editors of KANSAS FARMER and now assistant chief of the Department of Live Stock of the Panama-Pacific Exposition, writes that he has made a 500-mile trip through California visiting with dairymen and creamerymen. He is delighted to note the interest in and the development of the dairy and creamery interests of that state. He says that these interests have assumed the task of raising \$40,000 for the erection of a working dairy, cheese factory and ice cream factory during the exposition. Kansas creamerymen know that dairying has within the last ten years grown by leaps and bounds in California. They know this because formerly much Kansas butter was shipped to California. During recent years the shipments have been greatly reduced.

It is our idea that among dairy farmers the family can and should use the products of the dairy to the fullest extent desired. It must be remembered that the products of the dairy cow are the most nutritious and most economical in usage of all available food products. The family should have all the milk and cream it can use. An appetizing delicacy is whipped cream, and it may be used in half a hundred table combinations. Cream for whipping should not be in excess of 18 to 20 per cent fat. Such cream should be thoroughly cooled and aged and as a result of the latter very slightly soured. The acidity is one of the essential features in the satisfactory whipping of cream. To be sure, it should not be sufficiently soured so that in the whipped product it can be tasted, but cream that is just slightly acid will whip easiest, stand up longest and prove the most palatable.

The taint of gasoline in cream butter is a new and foreign odor to those who handle cream. The editor in his day has handled cream in considerable quantities, and this one is new to him. However, we recently sampled a can of such cream. Evidently it came from a farm on which the cream separator is operated by gasoline engine. As the use of such engine increases in farm dairies, so will the gasoline taint increase, and this taint will follow to the butter. In discussing the matter with a butter maker he stated that one-third of the cream delivered to his creamery was produced by gasoline engines operating the separators. This shows the increasing general use of such engine. It is well for the farm dairyman to arrange his separator room so that the odors of gasoline will not be taken up by the milk and the cream. It would seem that this could be done without arranging a separate engine room. The engine should exhaust outside of the room in which the milk is handled. The careful handling of the gasoline should then result in no trouble.

This fall's wheat and rye pasture and the consequent abundant milk flow ob-

tained therefrom, teaches better than anything else the advantages of green and succulent winter feed for the milk cow. The farm dairyman who realizes these advantages can, if he will, most years have wheat and rye pasture. The principal thing is that of seeding immediately following harvest. We believe that seven of every ten years such early seeding will result in fall pasture. Spring pasture is fully as essential as winter pasture and can be had more easily. The results obtained through late fall and early spring pasture should be a substantial and unquestioned argument in favor of the silo which preserves the green crop of the summer for winter's usage in a succulent condition. After all, succulence in the feed of the milk cow is an element to which too little attention has heretofore been given. Succulence is absolutely essential to a good milk flow. Since we have in Kansas the corn and the sorghums with which to fill the silo, the well fed and consequently most profitable dairy herd should be provided with the succulence required.

The question often arises as to whether milk rich in fat or medium in fat is most desirable for human food. One thing appears as accepted and which is taught by all hygienists, dieticians and physicians, both in Europe and in the United States, namely, that it is not the so-called rich milk that best answers the food needs of human beings. European milk for domestic consumption in general is medium fat, and the European experts invariably recommend the use of milk that contains the lower fat percentages and milk which ranges from 3 to 4 per cent. The high fat milks are condemned as constipating, overheating and unbalanced food. The European idea on this point is gaining currency in the United States. We think the position of scientists on the milk question has particular reference to the feeding of children. On this point in a recent bulletin on the feeding of infants, the Colorado State Board of Health says: "In regard to cow milk, the public naturally wish to get the worth of their money and a minimum standard of butter fat should be maintained, yet it appears to be true that very rich Jersey milk is more liable to cause gastroenteric disturbances than milk poorer in fat." We think the medium rich milk is accepted as the proper food for infants and children or others whose diet is largely composed of milk. The ordinary city consumer who buys domestic milk from wagons, however, looks upon milk rich in fat with the most favor. This, because he can pour from the bottle the cream to be used as cream and the skim milk is in fact that which is consumed as drink. In preference to paying an extra price for milk rich in fat, the city consumer had better buy his cream in the form of cream and pay the moderate price for milk moderately rich in fat for drinking. Human milk ranges low in fat, from less than 3 per cent to slightly more, and it is fair that this percentage be accepted as Nature's guide in the selection or the preparation of milk for food for infants.

A KANSAS FARMER reader near Topeka bought recently a pure-bred Holstein male with the understanding in the transaction that he was to have "the papers with the animal." The papers came, and these were a certificate of registry and a certificate of transfer. The purchaser thought he should receive a pedigree and phoned KANSAS FARMER for information as to whether or not such pedigree was by the common understanding of the trade, included in the understanding relative to "the papers." Our answer may be of interest to readers in general. It is not customary, except by specific agreement, for the seller to furnish an extended pedigree. Such pedigree is one tracing the breeding of the animal's ancestry back seven or eight or more generations. Not all breeders or dealers in pure-bred stock have these pedigrees. Did they have them, there is no reason why they should not be willing to transfer the pedigree with the animals sold. They are of no more value to the original owner than is the old deed to a piece of land that has passed out of the owner's possession.

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The customary practice in such matters is to deliver the certificate of registry, which is a guarantee of pure breeding, and which in the case of the Holstein certificates gives the name and registry number of the dam and sire. This is the only certification of pure breeding needed. The transfer certificate is that which certifies on the records of the association the transfer of the animal from the seller to the new owner. The pedigree itself is really a record of the breeding and is not, as generally understood, one of the papers to be delivered by seller to purchaser except under specific agreement. The cost, in the case of Holsteins, is 50 cents for working up an extended pedigree. KANSAS FARMER has the herd books of a number of the pure breeding associations, and these are accessible to our readers, who, when in Topeka, might drop into our office and work up pedigrees for themselves. In the dairy breeds we have only the records of Holsteins, but of the beef breeds, swine and horses, our files are quite complete.

Test Association to Continue.

The Dickinson County Cow Testing Association, which, in a few weeks, will have concluded the first year of its organization, will be re-organized. Farmers owning 311 of the 365 cows now being tested, have subscribed for another year's work. It is believed by Ralph W. May, the tester, that the number can be increased to 500 cows, this being the number needed to conduct the work on the most economical and satisfactory basis. The Abilene Reflector reports that at the meeting for the re-organization of the work, the members were enthusiastic and that paper is of the opinion that the testing association is a permanent institution in the locality in which it has been given a year's trial.

Mr. May, the tester, writes KANSAS FARMER: "I desire to thank you for the publication of your articles favoring and supporting the cause of the association. At our meeting these articles were the cause of much favorable comment and expression of good will toward you."

KANSAS FARMER has received several inquiries from farmers in other localities who are desirous of detailed information relative to the organization of cow testing associations. These inquiries have been referred to O. E. Reed, Professor of Dairying at the Kansas Agricultural College. Farmers and others interested in the organization of such associations should write direct and obtain the information necessary to enable them to begin subscribing members. In every locality in which cows are milked and the required number for the organization of an association can be had, it will pay to investigate the methods of organization with a view to getting cow testing started.

Bates Family Developed For Milk.

It will be recalled that in these columns a few weeks ago we commented upon the herd of milking Shorthorn cattle which Professor McKay of this country had discovered in England and which he was reported as saying had been bred and selected for milk for thirty-five or forty years. The average annual production of this herd of 200 cows, was given as 6,400 pounds. We took Professor McKay to task somewhat for calling this a dairy herd. In our correspondence with him on the subject, he makes this interesting statement:

"In the dairy districts of England farmers have confined themselves almost entirely to the Bates type of milking Shorthorn. They have bred and selected these animals for thirty-five or forty years for their usefulness as milk producers and consequently they may now be termed a dairy breed. The cows are very much larger than the average dairy cattle although they are not as beefy as the Cruikshank or beef type of Shorthorn. In fact, in England farmers look upon these two types as two distinct breeds of cattle. The English people may be termed beef eaters; therefore, while they are dairying they desire to grow beef as well. Hence they are radically in favor of the milking Shorthorn or the Shorthorn grades of the Bates families. While these cows have won a number of times in butter contests in the different places throughout England, it could not reasonably be expected that they would produce as economically as the true dairy breeds, but with the English way of caring for and feeding them, their average milk production is much larger than the average of the so-called 'scrub' cow we have in this country. All of the importations of the Shorthorns from England to this country during recent years have been of the beef

type and dairying with this class of cattle could not be expected to prove profitable. It appears to me that where people in the corn belt sections insist on keeping a so-called dual-purpose cow, that the milking Shorthorn of England would approach nearer this type than any other breed of cattle."

We learn from the letter from which the above is quoted, that Professor McKay is preparing a bulletin for general distribution and in which is discussed the adaptability of the English milking Shorthorn to dairy purposes in this country. The fact is that he has several bulletins in the course of preparation, each dealing with a particular breed investigated by him in several of the old countries. He is not writing about the Holstein, the Guernsey, or the Jersey. He says the merits of these breeds as dairy cattle are too well known in this country to justify his saying anything further about them. He will write of the milking Shorthorn as seen in England, and Danish red cattle as seen in Denmark, and of the Ayrshire as found in Scotland.

Professor McKay has made frequent excursions of investigation through the older countries, inquiring particularly into the producing side of the dairy business. He has as much, if not more, information relative to this phase of dairying than any other man in this country and KANSAS FARMER will in due time give its readers the gist of his writings on this subject.

The Motorcycle Hurries Things Along.

Everywhere you travel the motorcycle is in evidence. The number is rapidly increasing. The greater number of these machines are ridden by farmer boys. To a considerable extent they have replaced the horse and buggy—a necessary part of the boys' equipment when we were one of them. In an unlimited number of ways it can be of help in general farm operations. The ability of the motorcycle to cover the ground quickly makes it possible for the farmer to send to town for parts of machinery or supplies, and have them back in quick time. With the motorcycle this trip can be made by one man without loss of time on the part of any of the horses or farm hands. Without the motorcycle an extra horse has to be kept or one has to be taken from work in the field to make trips of this kind.

Establishing the Farm Dairy

(Continued from Page Four.)

other words, I mean to say that if a man has efficient dairy cows giving milk of such test there is plenty of money in the milking of such cows. A herd of Holsteins averaging 3.4 per cent is a good average.

I do not know what the Governor's plan is relative to maintaining ample dependable help. I have no doubt he has worked this out. The help question with a herd of fifteen to twenty cows—a herd of which size will come within the limits of the average dairy farmer—does not involve any considerable problem. Two persons can milk this number of cows without assuming a burdensome chore. This is particularly true if the milking surroundings are comfortable. If help were short I would seriously figure on arriving at the point at which I could install a mechanical milker. These milkers are thoroughly practical and the expense of installation is justified in the case of the twenty to twenty-five cow dairy, provided, of course, the cows are of real dairy quality. A dairyman friend of mine who was confronted with this help proposition secured a young man milker or two from Wisconsin. He found that the farm hands of that state are not opposed to the milking of cows as are the farm hands of Kansas. To be sure, the Wisconsin farm hand has, as a rule, we believe, been accustomed to reasonable milking conveniences. That is to say, a barn which can be and is kept fairly clean and a barn otherwise comfortable. The Wisconsin farm boy is brought up in the milking business. This is true of the boys in many other states, and we think if we wanted dairy help we would investigate the possibilities of importing such help. Our friend advised that he had no trouble in making satisfactory arrangements for wages. I know of a dairyman who hires a man and his wife, furnishing them with a small house and the products of the farm with which to supply their table. When not milking, the man does farm work. The hired man's wife helps with the milking. We think there are several ways by which the help proposition in a properly organized dairy can be satisfactorily solved.

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For Sale—Eleven 10-pound cockerels, sired by exhibition cock, direct from William Cook & Sons. His sire won first at Madison Square Garden. Cockerels are from hens of good color and weight. Also five cockerels from Cook's \$200 setings, all \$10 each. If not satisfactory, money refunded less express. Eggs in season.

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PURE BRED POULTRY

PLYMOUTH ROCKS.

BARRED ROCKS—68 PREMIUMS. 50 cockerels, \$2 each and up. Mrs. D. M. Gillespie, Clay Center, Kan.

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PURE BARRED ROCK COCKERELS, \$1.50 each. Vigorous, farm-raised. Mrs. H. Buchanan, Abilene, Kan.

BARRED ROCK COCKERELS, THOR- oughbred. Strong bony fellows, fine color, \$1.50 each. H. H. Unruh, Hillsboro, Kan.

BUFF ROCK COCKERELS, \$5 EACH, TO make room. Fine big fellows. Satisfaction guaranteed. C. R. Baker, Box 3, Abilene, Kan.

WHITE ROCK PULLETS, \$1.00 EACH, to make room. Nice, well matured. Satisfaction guaranteed. Mrs. Fred Seville, DeSota, Kansas.

BARRED PLYMOUTH ROCKS FOR sale. Cockerels at \$2; pullets and last year's hens at \$1 each. Four male and four female Hampshire pigs for sale. E. S. Tallafarro, Route 3, Russell, Kan.

BARRED ROCK COCKERELS—UTILITY birds for the farm flock, hatched from mated pens. Light colored, \$2.00 each; medium and dark, \$3.00 to \$5.00. C. C. Lindamood, Walton, Kan.

WHITE ROCKS—BRED FROM OUR MIS- souri State, Kansas City, Little Rock, Jefferson City and Western Missouri winners. Four good hens and a cockerel, \$10.00. Edelstein Heights Farm, Harrisonville, Mo.

SOME SLENDID BARRED ROCK cockerels and cockerel-bred pullets, sired by Sensation, first prize cockerel at State Show, 1913. For further information write me. Mrs. R. J. Molyneux, 523 Baltimore St., Wichita, Kan.

HAWK'S BARRED ROCKS WON AT last American Royal first, second, pullets; first, third, hens; fourth, pen. Exhibition and high-class breeding birds, both sexes, for sale. Right prices. Write wants. Hawk's Barred Rock Farm, Chas. A. Hawk, Prop., Atchison, Kan.

SEVERAL BREEDS

TURKEYS, CHICKENS, DUCKS, GEESE. Emma Ahlstedt, Roxbury, Kan.

WHITE ROCKS AND PEKIN DUCKS for sale. C. Herron, Hope, Ind.

PAYING 16 CENTS FOR STRAIGHT coops hen turkeys; young toms, 14c; old toms, 15c; springs, 12½c; stags, 10c; H. hens, 12c; ducks, 11c; geese, 10c. Coops loaned free. Daily remittances. The Cope's, Topeka, Kan.

BUFF LEGHORNS, BLUE ANDALU- sians, Silver Pencilled Wyandottes, Red Cap Pekin and Indian Runner Ducks, Geese, Bronze Turkeys. Always winners at leading state fairs and state shows. Special prices for quick delivery. Hanson's Poultry Farm, Box K, Route 2, Dean, Iowa.

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CHOICE INDIAN RUNNERS.—DUCKS, \$1.50; drakes, \$1.25. Mrs. E. M. Jones, Granger, Mo.

ENGLISH INDIAN RUNNER DUCKS. Brown breasted, rich in color. Eggs only. Booking orders. Louis McDonald, Topeka.

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CHOICE PURE-BRED S. C. BUFF Orpington cockerels one dollar each. Wm. Gutzmer, Le Roy, Kansas.

SINGLE COMB WHITE ORPINGTONS. From St. Louis 1913 winners. Pens, \$20.00 and up, according to quality. W. G. Langehenig, Jackson, Mo.

S. C. WHITE ORPINGTON COCKERELS—Every bird from son of first cockerel, Madison Square, New York, 1911. Every bird shipped on approval. If not satisfactory, return at my expense. \$2.50 to \$5.00. Ed Granerhotz, Esbon, Kan.

S. C. BUFF ORPINGTONS, R. C. AND S. C. Rhode Island Reds, White Chinese, Toulouse and White Emden Geese (both males and females). We have pure-bred stock and guarantee satisfaction. Write us. Chiles Poultry Yards, Chiles, Kan.

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POULTRY



The boycott seems to be aimed more at the price of storage eggs than at the price of fresh eggs. In fact the latter are so scarce as to leave no room for a boycott on them.

The paying hen is the laying one, and the laying hen is the singing one. If you want your hens to sing, give them good attention, and that means good housing, good food, and everything essential for the best welfare of the birds.

The writer can testify to the fine eating quality of the Bourbon Red turkey, Mrs. C. D. Myers, Fredonia, Kan., having made him a present of one for his Thanksgiving dinner. A more tender or delicious turkey we never ate, and Mrs. Myers has 160 more of them.

One would suppose from the nice fall and winter weather we have been having that the hens would be laying in great shape, but complaints reach us from all sections that the hens are on a strike. We presume that they laid so late in the fall that they molted late, and won't lay again till they get a good rest and their feathers are renewed.

In cold weather hens go to roost very early, and as the nights are long, it is essential that they have a full meal before retiring. Hens are also very early risers, and if you are a late riser yourself, or have other chores to do before you can feed the hens, you had better scatter some grain on the litter or floor of the poultry house after the hens go to roost so that they can get it as soon as it is daylight.

One December 3 one million fresh laid eggs arrived in New York City from near by poultry regions. Another million, still fresh, arrived from the outlying zone. Still another million came from over the seas in Europe. Almost four million fresh eggs from European henneries were due in a few days. Still the price of eggs keeps abnormally high and there is much dissatisfaction among householders over the situation, who threaten to boycott the egg trade.

Eggs are eggs these days. The high price of eggs has created havoc with the domestic arrangements of C. P. Swanson, contractor at St. Charles, Ill. Mrs. Swanson is suing for divorce because her husband won't provide her with sufficient eggs. "My wife uses 15 eggs a day, and that is going some with eggs at 45 cents a dozen," said Swanson. "She is suing because I do not provide enough eggs. Let her tell it to the court." Let us hope the court will sentence both of them to start a poultry and egg farm.

There are now about 720,000,000 of the 1912 crop of eggs in cold storage in this country, according to experts. Most of them are stored away at Chicago, Kansas City, Buffalo, New York and Jersey City. The speculators are holding them for a profit of \$3 a case, or 10 cents a dozen. The Housewives' League is drafting a federal cold storage bill which is intended to limit the profit on storage eggs to 50 per cent cost. That is, eggs bought in April at 18 cents a dozen could not be sold in the following fall or winter at more than 27 cents a dozen, plus storage charge of two or three cents a dozen.

It is poor policy to purchase damaged grains of any kind to feed to poultry. Feed everything sweet and clean; mouldy foods should be given a wide berth. The health of the birds is dependent largely upon what is fed to them, and if you wish to main health and vigor in your flock, you should give some attention to this matter of feeding. Use a balanced ration if possible. If you don't know how to balance your feed, get some experienced poultryman to tell you. If you will give him the list of grains that you have, or are most accessible to you, he will tell you the proportions to use in feeding for the best results. All grains are not available at all places, and you must use what is at hand as far as possible. It will pay at times to sell some grains that one has a surplus of, and buy others so as to help out the balanced ration.

How to Ship Chickens.

We are going to use the chicken more and more as beef grows scarcer. The time may come when we will all raise chickens, even when hard pressed for room, allowing them to share our beds with us as do the Sicilians! But at present the great poultry producing districts of the United States center about the Mississippi Valley, where the fowl has range and feed. The Department wants to know if there is waste in poultry shipping, and it has been studying the situation. We all know the still too popular method of shipping dressed poultry—a barrel containing alternate layers of chickens and ice, with a gunny sack tied over the top and only the earnest wish of the shipper to keep the mess sweet. The soaking of the birds in the melted ice, the dirty heads and feet, and the gradual dissolving out of the soluble parts of the flesh, causes, in actual decay, a great loss in eating quality and in food value. The barrel thus packed was put into a freight car and "rushed" to its destination.

The Food Research Laboratory of the Bureau of Chemistry is carrying on extensive investigations as to the least wasteful and most sanitary methods of killing, packing and dressing poultry. The Laboratory is trying to co-operate with the shipper and educate the consumer—a large undertaking. Every householder ought to know the things that the Laboratory is saying. It says that chickens should be starved, except for plenty of water, for 24 hours before killing. This does away with the necessity of eviscerating, which gives such great opportunity for pollution. When a chicken is killed it should be properly bled. At least 30 per cent of all chickens coming to the New York market have been improperly bled. These chickens lose in flavor and keep ill. A careful study is being made in the laboratory of the relative keeping qualities of well and ill-bled fowls. This is being determined for every phase of their marketing—their condition after chilling in the packing house, at the end of the railroad haul, and when they have passed through the various channels of a great city to the consumer.

When the bird is killed the portion of the brain tissue that controls the muscles holding the feathers in place must be destroyed so that dry picking is easy. After packing, chilling. When chickens are alive their temperature is 103 degrees F. This must be reduced to 32 degrees F. or less before the birds can be packed for the long, hard haul in the refrigerator car. But the range of temperature permitted is small. Below 30 degrees F. the flesh is frosted.

The laboratory says that good refrigeration is necessary from start to finish of the chicken's journey to the consumer. We are to become as dependent on our refrigerator cars for our food supply as England is upon her ships. The modern refrigerator car must become a chill room on wheels if it is to serve the public satisfactorily and bring financial profit to the railroads. It ought to have good insulation. The same car with its unbroken load must not vary in temperature over five degrees, stoves must be used in one part of such a journey and ice in others. A great many experimental shipments of poultry have been made by the laboratory to learn the best available way of conducting the handling. It has devised a refrigerator car which meets the requirements found in its investigation and it has found first-class packers glad to profit by the suggestions it makes.—U. S. Bulletin.

A subscriber asks for information relative to the annual meeting of the Farmers' Alliance Insurance Company of Kansas. We chanced to observe in a newspaper notice to the effect that the twenty-sixth annual meeting will be held on January 6, 1914, at 10 A. M., at the company's office in McPherson, Kan. Also that five directors will be elected, each for a three-year-term, and that the report of the secretary and treasurer will be made and all other business properly coming before the meeting will be considered. C. F. Mingenback is secretary, and I. F. Talbott is president.

PURE BRED POULTRY

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FINE S. C. WHITE LEGHORNS. ALEX Spong, Chanute, Kan.

S. C. WHITE LEGHORN COCKERELS, nicely bred with good size, \$1 each. H. B. Browning, Linwood, Kan.

S. C. BROWN LEGHORN COCKERELS, extra quality. \$1.50 each. Mrs. L. H. Hastings, Thayer, Kan.

SINGLE AND ROSE COMB BROWN Leghorns. World's most famous winners and laying strain cockerels, \$1.50 up. Plainview Poultry Farm, Lebo, Kan.

SINGLE COMB WHITE LEGHORNS. Cockerels, \$1 and up. Guaranteed to please. Show record free. W. F. Wallace, Diagonal, Iowa.

TURKEYS

BOURBON RED TURKEY TOMS FOR sale. Emma Avery, Woodston, Kan.

MAMMOTH BRONZE TOMS, \$3.50, DURING December. Frank Hoover, Sabetha, Kan.

PURE-BRED WHITE HOLLAND TUR- keys. Winnie Litton, Peabody, Kansas.

BOURBON RED TURKEYS.—MRS. PAUL Bushkowsky, Whitewater, Kan.

BOURBON RED TURKEYS, BUFF ROCK chickens. C. S. Hart & Sons, Milan, Mo.

FINE BOURBON RED TURKEY TOMS, \$4.50 each. Victor Bull, Marietta, Kan.

WHITE HOLLAND TURKEYS—LARGE- boned, healthy. Write G. M. Kretz, Clifton, Kan.

BOURBON RED TURKEYS—FINE PURE- bred birds. Toms, \$4.50; hens, \$3.50. Chas. Crane, Conway Springs, Kan.

PURE-BRED BOURBON RED TURKEYS, Buff and White Orpington Partridge Rock chickens. A. M. Farmer, Pratt, Kan.

BOURBON RED TURKEYS—THOR- oughbred young toms and hens for sale. W. H. Oliver, Reger, Mo.

FOR SALE—MAMMOTH BRONZE TUR- keys, White Wyandotte cockerels. Alex Thomason, Havana, Kan.

WHITE HOLLAND TURKEY TOMS, \$3; hens, \$2. H. F. Fritzmeyer, Route 5, Box 15, Stafford, Kan.

MAMMOTH BRONZE TURKEYS. ONE Tom last year weighed 50 pounds; 25 years' experience. Toms \$5.00, hens \$3.50. Mrs. U. A. Towns, Route 5, Bethany, Mo.

BOURBON RED TURKEYS OF A NEVER defeated show record. Large framed, early hatched and correctly marked. Hens, \$3.50; toms, \$4.50. Mrs. Clyde Meyers, Fredonia, Kan.

MAMMOTH BRONZE TURKEYS.—20 toms, weight 20 lbs., extra choice, \$3.50 each; 12 hens, \$2.25 each. These prices for 30 days. C. F. Behrent, Oronoque, Norton Co., Kan.

WYANDOTTES

WHITE WYANDOTTES, 80 CENTS TO \$3.00. Mrs. E. S. Louk, Michigan Valley, Kan.

GOOD HEALTHY COCKERELS AND pullets in Silver Wyandottes. Prices reasonable. H. L. Brunner, Newton, Kan.

CHOICE BUFF WYANDOTTE COCKER- els at reasonable prices. John P. Ruppenthal, Russell, Kan.

BUFF WYANDOTTES—CHOICE BREED- ing stock at all times. A few good cockerels on hand. Must be taken soon. Wheeler & Wylie, Manhattan, Kan.

RHODE ISLAND REDS

S. C. REDS—FINE DARK RED COCK- erels, \$1.00 each until January 1. Harry Dickson, Blue Rapids, Kan.

PURE-BRED S. C. R. I. RED COCKER- els. Mammoth Bronze Turkeys. John W. Henry, Osborne, Kansas.

ROSE COMB RED COCKERELS, \$2, \$5. White Indian Runner Drakes, \$1. Satisfaction guaranteed. C. Thompson, Orlando, Okla.

WALKER'S STANDARD STRAIN OF S. C. Reds. Stock and eggs. Quality and prices made attractive. Address Walker Poultry Co., Chillicothe, Mo.

S. C. R. I. REDS—WE HAVE EXTRA nice old and young birds with size and color at reduced prices. Moore & Moore, Wichita, Kan.

BIG-BONED DEEP RED R. C. REDS. Long back, low tail, red eyes, high scoring. \$2.50 and \$5 each. Guaranteed. Highland Farm, Hedrick, Iowa.

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FOR SALE—PURE-BRED WHITE Langshan cockerels, \$2.00 and \$2.50 each. Henry Neidig, Madison, Neb.

BLACK LANGSHANS, OLD AND YOUNG. High scoring stock. Write for prices. Mrs. D. A. Swank, Blue Mound, Kan.

Standard Papers

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HOME CIRCLE



"You Kansans," Charlie Blakesley in his Kansas City Starbeams quotes a Missourian as saying, "always have your brass bands going and your flags flying. We in Missouri get tired of your cocksureness. Tell me what you have decided about the hen, for instance. Does she 'sit' or does she 'set'?" "We don't bother about a thing like that," retorted the Kansans. "What concerns us is, when she cackles, has she laid or has she lied?"

Black is not the "mourning color" in all countries, although used as a symbol of sorrow in America and Europe. The South Sea Islanders express both grief and hope in black and white striped garments, violet is the Turkish emblem of mourning, yellow is worn in Burmah and Egypt, and the widows among the peasantry in Brittany wear yellow caps to symbolize their bereavement. In Bokhara deep blue is the mourning color, as it was in the Roman republic, in Syria, Armenia and some other small countries sky-blue or azure indicates the assurance that the departed has gone to the abode beyond the skies, grayish-brown is worn among Ethiopians, and white, emblematic of hope, is used in China, Japan, and various dependencies, as it was in Spain until the close of the sixteenth century, and in ancient Sparta.

How to Grow Asters.

Asters succeed best and are easier grown in rich loamy soil. Fine specimens can be grown in almost every section by sowing seed early in boxes in a sunny window. When one or two inches in height transplant to permanent beds. The large late branching sorts should be two feet apart each way, the tall varieties 18 inches apart, and the dwarf varieties 10 inches apart, by this method you will avoid the two great enemies of the asters, the black beetles, which appear when they commence to flower, and destroy the blooms and buds, which so often occurs when the seed is sown in the open ground the first of May. The first requisite in growing asters is a good rich soil well supplied with manure, but unless the soil is kept fine and loose and never allowed to bake or become hard their growth will be checked, and vitality destroyed. Air cannot penetrate baked soil and it soon dries out, so constant cultivation is necessary to success. Leaf blight sometimes occurs just as the plants bud, but is not apt to do so when kept cultivated. Small beetles sometimes during August eat the flowers. Early in the morning knock off into a pan and destroy, or cover with a cheap fly netting. If the flowers droop on a warm day, water the soil with soap suds made of Ivory soap and sprinkle close to the stem, for this sudden drooping is caused by lice, un-

less drooping for water. Dwarf and tall varieties make fine pot plants, but the large types do not. The dwarfs when transplanted should be set in pots at least four inches in diameter inside measure, the tall varieties in pots of from six to seven inches in diameter, inside measure.—Journal of Agriculture.

So often when crocheting a lace edge it is desirable to know how to turn a corner. If you don't happen to have the directions for doing so, try this method: Take a piece of the straight lace, and place a small straight-edge (not beveled) mirror diagonally across it, or in such a position as to reflect a mitered corner. This will show clearly just how the stitches should go.

Some Christmas Customs.

The Christmas tree comes to us directly from the Germans. In that country the children all believe in Santa Claus and the Christmas tree has a prominent place in every home. In Norway and Sweden the season is one of good cheer and early preparations are made to bring happiness to all classes, poor and rich alike. In no other country probably are the birds and animals so well remembered. Sheaves of grain are fastened to the tops of tall poles and renewed every day for a week, and many are the birds that partake of this feast. The cows and horses share in the general happiness by having a double ration on Christmas day. In certain southern countries where Spanish is spoken, "Yule-tide" is celebrated without the evergreen tree. Here there is a quaint superstition. It is thought that the animals have speech on Christmas day, and so when the cocks crow and the bulls roar and the sheep bleat, they are proclaiming the glad tidings of the Nativity—that Christ is born in Bethlehem. Many a child listens and tries to make out this wonderful conversation among the beasts and birds when Christmas morning dawns.—Our Dumb Animals.



6178



6021

No. 6021—Ladies' Shirt Waist. A pretty and fashionable shirt waist design is here offered. The garment is made with front and collar in one and may have long or short sleeves. The short sleeves are finished with pointed turn-back cuffs. Silk, linen, madras, poplin or serge may be used. The pattern, No. 6021, is cut in sizes 34 to 42 inches bust measure. Medium size will require 2 1/4 yards of 36-inch material and 1/2 of a yard of 24-inch contrasting goods. Price of pattern, 10 cents.

No. 6178—Ladies' Novel Tailored Suit. The illustration shows an ideal design for a street dress. It has a coat blouse, made quite plain in both front and back. The closing is slightly on the bias and the overlapping side is outlined by a single sharp rever. The skirt is a two-piece model and the closing may be placed at either of the seams. The dress pattern, No. 6178, is cut in sizes 34 to 42 inches bust measure. Medium size requires 4 1/2 yards of 44-inch material. Price of pattern, 10 cents.



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TURKEYS

WHITE HOLLAND



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Is made easy at the Big Store for those who cannot come for personal selections. Our mail order shoppers fill your orders for any merchandise ordered, from staples to novelties, and toys, as carefully as if buying for themselves. Our holiday stocks are completely ready—larger, more complete and attractive than in any previous season—with the prices all marked in your favor. Write for full information about any lines of goods desired, stating your requirements. We pay parcels post in the United States, express in Kansas.

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In the Jewelry Business

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Families Can Have Better Health.

The balanced ration of many Americans today is made up something as follows:

Bread, butter, eggs, meat and fish, potatoes; patent medicine laxatives.

Many Americans customarily suffer from one of the following complaints: Indigestion, constipation, rheumatism. A simple change of the daily menu might go a long way to remedy these ailments, according to the Federal Department of Agriculture specialist in charge of canning club work. This specialist recommends a change to a menu more in keeping with nature's plans, something as follows:

A NOVEL, ARTISTIC JEWELRY STORE

"OLD COLONY HALL"

Miss Addis

817 Kansas Ave.

THE STORE FOR

"Gift Givers"

Bread, butter, meat, fish, eggs, fruit, vegetables, greens.

He recommends that every family provide a diet of fruit and vegetables for every day in the year. This would do much to eliminate the need of patent medicine laxatives that figure so prominently in many Americans' bill of fare. If every home kept on hand enough canned products so that there might be a can of fruits, a can of greens, and a can of vegetables for every day during the winter, there would be little need for the laxatives now so regularly purchased from the corner drug store. There would also be great economy in the substitution of an inexpensive food for more expensive ones.

More home canning, done at the proper season, would enable the average family always to have the proper quantity of canned products, and would save an astonishing amount of food that goes to waste every year. It is estimated that over 50 per cent of all the vegetables, greens, fruits and berries that grow in this country go to waste and are actually lost to those who need them. This is simply because some housewives have not learned to care for these surplus products efficiently and to make them available for the winter months by canning.

"The care of tires is essential, if the expense of running an automobile is to be kept at a minimum," says F. A. Henderson, manager of the adjusting department of the Goodyear Tire & Rubber Co., Akron, Ohio. "Premature deterioration is due to neglect, therefore educating the consumer is a remedy for short service, and in addition increases his faith in the tires he uses."

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ARKANSAS VALLEY HAY AND STOCK RANCH

170 ACRES in fine alfalfa, sweet clover and prairie hay. All well fenced, house of 7 rooms, bearing fruit trees; nice grove, 3 miles town, 7 miles county seat and Division Ranch joins free range. Price, \$50 per acre. Can furnish good title and terms. 6% int. Owner must retire on account of old age. Also have a few quarters smooth raw land real cheap. Commission to agents. Write today. BOX 451, SYRACUSE, KANSAS.

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.

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160-acre well improved farm for sale. **W. C. WHIPP & CO.**, Concordia, Kan.

FOR SALE—Improved and unimproved grain and stock farms, \$10 to \$30 per acre. A 320-acre homestead relinquishment, level, good soil, cheap. **Jas. Hildreth, Dighton, Kan.**

FARMER INVESTOR—I have in Arkansas, Missouri and Oklahoma, farms of all sizes and prices. I have the choice of Benton Co., Ark., fruit farms. Write for prices and terms. **FARRICK, The Land Man, Hiwassee, Ark.**

ALFALFA FARM BARGAIN. 110 acres best river bottom land, only 3 miles of Emporia; well improved, 40 acres fine alfalfa. Price, \$100 per acre. Always have a bargain. Write me what you want in first letter. **FRED J. WEGLEY, Emporia, Kansas.**

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.**

CALIFORNIA LANDS. **ALFALFA LANDS—ANTELOPE VALLEY**, only 70 miles from Los Angeles, on S. P. R. R., 40 to 640 acre tracts, \$10 to \$45 per acre. Ten years' time. One-tenth cash. Ask for pamphlet. Please mention this paper. **SOUTHERN PACIFIC LAND AGENCY, 410 Grosse Bldg., Los Angeles.**

WISCONSIN LAND Now is the time to buy **GOOD FARM LAND CHEAP.** Write for prices and terms. **SHELDON LAND CO., Eau Claire, Wis.**

WHEAT LAND FOR SALE. one of the finest quarters in southwestern Alberta, Canada, all in cultivation. Fenced, 5-room house, small barn. Price, 30 dollars per acre. Will trade for eastern Kans. mow land. Address owner, **E. R. Koontz, Richards, Mo.**

IF YOU WANT TO BUY Land, either for home or investment, with fertile soil and ample rainfall, write us. Pasture land from \$3 to \$12.50 per acre. Farm land that never fails to produce crops if properly tilled, \$15 to \$35 per acre. **SOUTHERN REALTY CO., McAlester, Okla.**

FOR QUICK SALE, \$35.00 PER ACRE. 200-acre improved farm in Vernon Co., Missouri. Well located, good land; 7-room house, good barn and other outbuildings; nice grove and orchard; 1 mile to inland town, 6 miles to good railroad town. \$1,500 cash, balance easy terms. If you are looking for a big bargain and fine home, investigate at once. Address owner, **M. MILLER, Petrolia, Kansas.**

Fine Butler County, Kan., Stock Farms. 360 acres, 4 miles from county seat; 100 acres first-class first bottom and 100 acres finest smooth deep soil second bottom in cultivation and alfalfa; good improvements, timber, abundance water, 160 acres pasture. Price, \$20,000. No trade.

160 acres, five miles county seat; 70 acres finest bottom and second bottom, 40 acres fine alfalfa, 70 acres best alfalfa soil, 40 acres wheat, abundance water, timber, highly improved, beautiful home. Price, \$11,500. No trade.

The above are two of the best farm propositions in Southern Kansas for the money, no exception. **V. A. Osburn, El Dorado, Kan.**

A DICKINSON COUNTY BARGAIN. Eighty acres all smooth land, fine black loam, can plow every foot of it. Large 9-room house, well finished; cellar, cistern, well and mill; good barn, plenty large; cow barn separate, some orchard. This is for sale at a bargain. Inquire of **Briney, Fauts & Danford, Abilene, Kansas.**

130 ACRES, 1 1/4 miles of fine city of 2,000; high school etc., best wheat, corn, alfalfa land in world; 80 a. in wheat now and you ought to see it, balance in best of timber. Produced better than 40 bu. wheat per a. 1912. In center of oil gas belt. Unleased, can lease any time for cash rental and share. No incumbrance. Will sell at once, \$80 a., and is worth \$100. Come and see—you will buy. Terms. **LOCK BOX-926, Fredonia, Kansas.**

COLORADO TRADES. 600 acres, Greeley district, improved, irrigated, price \$40,000. 40-acre suburban tract, near Denver, well improved, paid water for irrigation, 10 acres fruit, alfalfa, etc., price \$35,000. Beautiful modern Denver residence, Capitol Hill location, price \$25,000. Will trade together or separate for good land or city property in Eastern Kansas, Nebraska, Missouri or Iowa. Send for details. **W. B. FRASER, 412 Colo. Bldg., Denver, Col.**

FARM LANDS FOR SALE

CHOICE FRUIT and poultry ranches for sale in western states and British Columbia—any size from 5 acres up—monthly, yearly or all cash payments. No irrigation needed. Price \$50 to \$150 per acre. Actual government reports show that ranchers making from \$400 to \$2,000 per bearing acre. Come and see. I have sold to over 500 people in eighteen months—send for the Kootenay Magazine—price 50 cents, but free to readers of this paper if you state your nationality, amount you have to invest and one reference. Beautiful mountain lake 85 miles long—never freezes—no rainy season, no crop-killing frosts. No severe storms, droughts or cyclones. Plenty of work in mills, mines and on ranches for laboring men. Wages the best. I live there myself. Write me personally. **Fred L. Harris, President International Fruit & Farm Lands Co., (Inc. \$500,000), Minneapolis, Minn.**

Where Irrigation Irrigates. No. 164—40 acres. Nearly all in alfalfa. Paid up water right, perpetual; 6 miles from Farmington. \$5,500. Terms. Also have many farms for exchange. Write and send list. **The Farmington Land & Investment Co., Farmington, New Mexico.**

LOOK 200 ACRES, \$4,000. \$1,200 cash, terms to suit buyer on balance. We sell or trade lands or anything anywhere. "Ask Kirwan & Laird about it," West Plains, Howell Co., Mo.

FOR SALE

200 Acres of unimproved prairie pasture and hay land, 40 acres of which is smooth mow land; 160 acres rough prairie pasture land, about 100 acres of it could be mowed; spring water. Priced right. Terms reasonable if sold soon. No trades. **W. L. WARE, GARNETT, KANSAS.**

Close to County Seat 400 Acres, 3 miles from Iola, county seat of Allen County, Kansas. Good 5-room house, barn and other outbuildings; grove and orchard; on rock road, telephone line and R. F. D.; 280 acres under plow; 80 acres fine meadow, 40 a. pasture. All choice land. Will raise alfalfa and other paying crops. Splendid neighborhood. For quick sale, \$50 per acre. \$5,000 cash, balance easy terms. Investigate. It is a snap. Address owner, **M. MILLER, Petrolia, Allen County, Kansas.**

HERE IS A SNAP

320 Acres, finest land in county. Smooth and level, 3 1/2 miles to church, post office, railroad and three elevators; 8 miles from county seat. Good barn, granary, well and wind mill; comfortable house. Price, only \$40 an acre; mortgage \$8,000 can be carried 4 years at 7 per cent. The place has 200 acres of finest wheat in the country. **H. B. BELL LAND COMPANY, Room 5 Commerce Building, Phone 2, Dodge City, Kansas.**

HOME ADJOINING TOWN. 240 acres, 6-room house, plumbed for gas; good barn; 140 acres in cultivation, 40 acres alfalfa, balance meadow and pasture; natural gas on farm; royalty, \$300 per year. Price, \$1,000; one-half cash, balance 5 years at 6 per cent. Also other farms for sale in corn, gas and oil belt of N. E. Oklahoma. **J. A. NETTAK, Nowata, Oklahoma.**

If you would like to live in the most beautiful city in the West, with unsurpassed educational, business and religious advantages, in a city clean, progressive, where real estate values are low but steadily advancing, where living expenses are reasonable, a city with natural gas at lowest price, address the **SECRETARY of the COMMERCIAL CLUB, Topeka, Kansas.**

FARMERS! STOCKMEN WE ARE GIVING AWAY THIS BIG 42-INCH TELESCOPE

Here is a valuable, practical gift to our farmer and stockmen friends—a powerful five-section telescope, 42 inches long extended, and made by one of the world's best known manufacturers. It is built of the best materials throughout and is brass bound. With each telescope we furnish a solar eye-piece for studying the wonderful sights in the heavens. The eye-piece is a powerful magnifying glass too, and can be used to study insects mentioned in crop bulletins, fungus growths on plants, and for a sun glass.

Makes Distant Objects Seem Near.

The lenses in these telescopes are made by experts and are carefully adjusted. Objects can be seen many miles away that are indistinct to the naked eye. Farmers and ranchmen find these telescopes very valuable in watching stock or people 5 or 10 miles away. By watching the clouds with this telescope some can tell the approach of storm early and prepare for it.

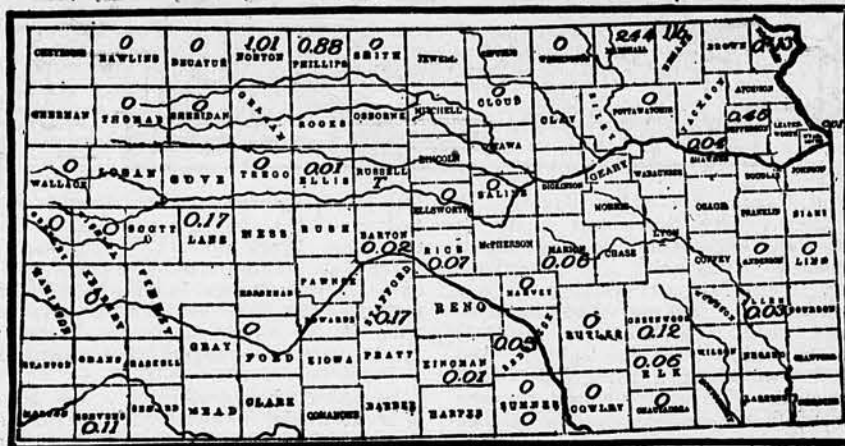
Our Great Offer.

We will send one of these great telescopes free and prepaid to all who send \$1.50 to pay for one two-year subscription to **Kansas Farmer**, or for one renewal and one new subscription each for one year, both for \$1.50. We will refund your money if you are not entirely satisfied. All orders filled promptly. Address **KANSAS FARMER, Topeka, Kansas.**



To reach the well-to-do Farmers of Kansas and surrounding Territory with a Heart-to-Heart Business Talk, use our Classified Columns. Ready buyers at a low cost.

KANSAS CROP REPORT FOR WEEK ENDING DECEMBER 13



Rain Chart prepared by T. N. Jennings from reports collected by the Weather Bureau. UNITED STATES WEATHER, OB SERVER'S REPORT BY COUNTIES.

Allen—Fair weather, mild temperature. Favorable conditions for agricultural interests.

Anderson—Fine week. Wheat, rye and grass looking good. Stock still on pasture. Barton—Very heavy white frost for six mornings.

Butler—Clear and pleasant. No rain. Wheat, alfalfa and rye looking fine. Chautauqua—Recent rains spoiling late feed. Wheat getting too high. Pastured wheat doing nicely.

Decatur—Snow. Ground not frozen deep. Creek runs strongly.

Doniphan—Clear and unusually pleasant week, with mild temperature.

Elk—Six clear days. Feed drying some, but badly spoiled. Stock doing well.

Ellsworth—Wheat in fair condition.

Greeley—Snow melted fast. Fine clear weather.

Greenwood—Wheat and alfalfa all right. Wheat getting rank. Too wet to pasture.

Jefferson—Flows along. Fodder damaged by recent rains. Cattle getting a part of their living on bluegrass. Plenty old corn for seed.

Johnson—Grass and wheat doing well. Water in wells and cisterns.

Kearney—Ideal conditions for all fall feeding. Plenty of moisture. Wheat looking fine. Stock doing well.

Kingman—Ground in fine condition. Wheat looking excellent.

Lane—Very favorable weather.

Linn—Stock doing well on pastures. Too wet to plow.

Logan—Rain during previous week, 4.07 inches. Wheat in good shape for winter.

Marion—Fly injuring wheat.

Marshall—Ground very wet; wheat safe yet. Stock mostly out of wheat fields on account of mud.

Nemaha—Five inches of rain. Grass and wheat growing. Shock fodder damaged.

Norton—Wheat doing fine. Hard frosts every night.

Phillips—Roads very bad. Wheat doing well.

Rawlins—Rain and snow; 3.69 inches of moisture.

Rice—Wheat in fine condition.

Russell—Fine week. Ground too wet to pasture wheat. Wheat and grass growing fine. Frost every night.

Saline—Pleasant week. Light freezing nights. Roads and fields drying on surface.

Sedgwick—Clear most of week.

Seward—Wheat growing nicely. Ground wettest ever known this time of year.

Sheridan—Wheat looking fine. Enough moisture to carry wheat through until March 1 or longer.

Smith—Fine rain. Wheat in fine condition. Roads very bad. Freezing at night.

Sumner—Heavy frosts. Alfalfa and oats growing. Roads bad.

Thomas—Rain. Three-inch snow. Stock in good condition. No farm work done.

Washington—Dandelions in bloom.

Wichita—Ground covered with snow all week. Wheat in fine condition.

FIELD NOTES

Orange Herd Boar. S. B. Amcoats, Clay Center, Kan., offers for sale his big Poland China boar, A's Big Orange by old Big Orange and out of J. O. James' best breeding sow. This boar is a two-year-old and a splendid breeder, but Mr. Amcoats has to change herd headers and so offers this one cheap.

FAIRVIEW JERSEY FARM, R. A. GILLILAND, PROPRIETOR. Mayetta, Kan., Route 1, Dec. 12, 1913. Kansas Farmer, Topeka, Kan. Gentlemen:—Please find check enclosed for the amount of my advertising up to date. Will say that my ad exceeded my expectations by far. Will send in another change soon. Yours very truly, **R. A. GILLILAND.**

Angus Bulls. With this issue K. H. Brown, Bolivar, Mo., is offering a number of Angus bulls. They are good individuals and come from some of the best families, and are well grown out. These bulls will make herd headers and are priced very reasonably. Mr. Brown has been breeding Angus cattle for 15 years and has all the best families represented in his herd—the Trojan, Eriola, Prides, Blackbirds and Drummonds. He is a good feeder and has some extra good cattle. If you are looking for a herd bull at a reasonable price you can find it at Mr. Brown's place at Bolivar, Mo. Please mention Kansas Farmer when you write.

Shorthorn Bulls. S. B. Amcoats, in his advertisement in this issue, offers for immediate sale six choice young red Shorthorn bulls. They are the low-down blocky sort, and all of them are in fine breeding form. They range in age from 8 to 15 months. Among them are a couple of pure Scotch breeding; the others are all Scotch topped. Bulls of such quality and of serviceable age are very scarce, and we suggest that it would be well to write Mr. Amcoats at Clay Center, at once, if in the market for a bull.

Bishop Bros.' Big Percherons. Bishop Bros., Towanda, Kan., whose ad appears on page 17 of this issue, are making a specialty of the Percheron stallion business. They have gained for themselves the reputation of handling and selling as good a lot of stallions as can be found anywhere. At the present time they have as good a lot as can be found in any barn. They are the big, weighty, drafty kind, with bone, quality and conformation that will meet the requirements of any buyer, or the needs of any locality. It is always the aim of these dealers when buying young stallions to grow and develop, to select the very best, as far as possible, in order that they may have desirable ones to offer to their trade when they are of serviceable age. If one is contemplating the buying of a stallion, it will pay him well to inspect the horses offered by this firm before buying, as he can surely find the kind that will please. Their three-year-olds weigh from 1,750 to 2,100 pounds, are blacks and grays, and are very attractive.

Jersey Sale Brings Crowd. The sale of registered Jersey cattle made at Clay Center, Kan., on December 12, brought together the biggest crowd of Jersey fanciers that were ever assembled at one time in a Central Kansas town. At least 75 men from outside the county were present, many of them going home without the coveted Jersey. Nearly all of the cattle went to parties living at some distance from the point where the sale was held. The offering was a very desirable one, but a large number were calves and the average was not a high one. Twenty-five head sold for an average of about \$100 per head, but the large number of little calves and aged cows cut down the average for the whole sale. Willard Brown topped the sale at \$160, buying No. 18, a beautiful young five-gallon cow in Mr. Smith's consignment. Mr.

Safer Railroad Crossings.

Unless motorists come to their senses and do more careful driving they will in the years to come be compelled to comply with laws which will greatly interfere with the pleasure of driving. Railroad companies are now urging a statute which will require a motorist to "stop and look" before driving over a railroad crossing. Such a law would remove much satisfaction from auto driving, but present carelessness of drivers, if persisted in, will result in such a law.

The overhead or underground crossings over railroads are the safest and best ways to solve the grade crossing danger," says State Highway Engineer Gearhart, "but in a prairie state like Kansas there are few opportunities to put in these types on account of the steep grades it would give to the highway. And then the cost of such crossings is pretty high. The worst places should be improved by the overhead or underground crossings wherever possible, but it will, of course, take a long time to get these improvements.

"To make these crossings reasonably safe at once, the brush and earth obstructions should be removed. In many places the railroads should help with this work. They should at least put in bells at every crossing. I believe the Public Utilities Commission should investigate this matter, and if it has authority it should require all railroads to install alarm bells."

Bruce Saunders
President

JACKSON COUNTY BREEDERS' ASSOCIATION

MOST PROGRESSIVE BREEDERS OF
JACKSON COUNTY UNDER THIS HEAD

Devere Rafter
Secretary

SHORTHORNS.

Oak Grove Shorthorns headed by the great bull "White Starlight" by Searchlight. Dam by Choice Goods. Every cow in herd straight Scotch. **ROBT. SCHULZ**, Holton, Kansas.

ABERDEEN ANGUS.

"BLACK DUSTER" heads our herd, mated with as richly bred cows as can be found. Choice cows with calves at foot, and re-bred. Also young bulls. Berkshires. **George McAdam**, Holton, Kan.

POLLED DURHAMS.

"TRUE SULTAN" heads herd. Shown at 9 leading fairs last year, winning 9 firsts and 8 junior championships. We are mating him with cows of equal breeding and merit. **Ed. Steglin**, Straight Creek, Kan.

HERFORDS.

HEREFORD BULLS. Choice, richly bred individuals, ready for service. Also Dur-o-Jersey gilts bred for spring farrow. Percherons for inspection. **M. E. GIDEON**, Emmett, Kansas.

HOLSTEINS.

SHADY GROVE HERD. For immediate sale, four choice young bulls of excellent breeding and out of high record dams. Also three-year-old herd bull. Inspection invited. **G. F. MITCHELL**, Holton, Kan.

SEGRIST & STEPHENSON. Breeders of registered working high testing Holsteins. Choice young bulls out of record cows for sale. Farm adjoins town. **Holton, Kan.**

"BUFFALO AQUEINALDE DODE," son of a 24-lb. cow, heads our Holsteins. Cows are as good as we could find. Young bulls for sale later. Visitors always welcome. **DAVID COLEMAN & SONS**, Denison, Kan.

HOLSTEINS. Best of breeding and individuality. Registered and unregistered O. I. C. sows of the best strains. Also White Wyandotte chickens. Stock for sale. **J. M. Chestnut & Sons**, Denison, Kansas.

PERCHERONS.

BANNER STOCK FARM. Percherons headed by "Incus," grand champion at American Royal, 1911; weight 2,240. Big registered jacks and jennets for sale. **BRUCE SAUNDERS**, Holton, Kansas.

FEW PERCHERONS FOR SALE. Also in the market for some fillies. **JAS. C. HILL**, Holton, Kansas.

JACKS AND JENNETS.

M. H. ROLLER & SON, Circleville, Kan., breeders of jacks and jennets. Established 1881. All ages for sale. One imported Percheron and one high grade Belgium stallion.

When writing advertisers, please mention Kansas Farmer.

JERSEY CATTLE.

Linscott Jerseys. The oldest and strongest herd in Kansas. One hundred head, consisting of cows in milk, heifers and young bulls. Reasonable prices. Island breeding. **R. J. LINSOTT**, Holton, Kansas.

FOR QUICK SALE—Jersey Herd Bull "Daisy Corona's Champion," an excellent sire of high producing heifers. Can't use him longer to advantage. Will sell cheap. **R. A. GILLILAND**, Mayetta, Kansas.

SUNFLOWER JERSEYS, headed by Imp. "Castor's Splendid," mated with real working cows. Choice young bulls of serviceable age for sale. **H. F. ERDLEY**, Holton, Kansas.

SPRING HILL DAIRY FARM. Jerseys headed by "Diploma's Dictator," cows of richest breeding. Choice young bulls and heifers for sale. **J. B. PORTER & SON**, Mayetta, Kan.

"Fontain's Valentine" heads our choice, pure-bred, unrecorded cows in calf to this bull, for sale. **W. E. LINTON**, Denison, Kan.

DUROC JERSEYS.

Pleasant Home Farm. Choice Durocs. Headed by "K's Golden Rule," grandson of Golden Rule, dam of Tatarax breeding. Prize winning Black Langshans. Stock for sale. **George H. Klusmire**, Holton, Kan.

OAK GROVE FARM DUROCS. Headed by "Freddie M" 9471, grandson of the noted Colossal. Sows in herd of equal breeding and merit. Visitors welcome. **F. M. CLOWE**, Circleville, Kansas.

POLAND CHINAS.

MAPLE HILL POLANDS.—Will sell my herd boar at a bargain. Grandson of Colossus. Fine individual. Fall pigs, either sex. Also Partridge Wyandotte chickens. **WALTER DODSON**, Denison, Kansas.

HIGHLAND STOCK FARM. Poland Chinas Shorthorns. 15 choice, big bone, spring and summer boars for sale, sired by "Expansive Wonder." Also fall boars. **BROWN HEDGE**, Whiting, Kansas.

MAHANS BIG POLANDS have both size and quality. Headed by a son of the great Expansive. Sows of unusual size and smoothness. 25 fall pigs, either sex, for sale. **J. D. MAHAN**, Whiting, Kansas.

COLEMAN'S BIG SMOOTH POLANDS. 150 in herd. Herd boars, Ross Hadley, Hadley C. Expansion, Price We Know, Mastodon and Mogul sows. Herd has tops from many sales. 20 bred gilts and 25 fall pigs for sale. Also Jersey cattle. **JOHN COLEMAN**, Denison, Kan.

P. E. McFADDEN, HOLTON, KANSAS. Live stock and general farm **AUCTIONEER**

PERCHERON SALE

On Thursday, January 8, 1914

I will sell at Public Auction, commencing at 10:30 a. m., on my Pioneer Stud Farm, 17 miles South of Salina, three miles East and one mile North of Lindborg, two miles South of Bridgeport,

Forty-one Head

PERCHERON STALLIONS, MARES AND COLTS

Consisting of

20 Mares - Seven Stallions - Fourteen Colts

The mares are all bred and in foal by the two grand champion stallions, Ilmen (20190) 78696 and Kangourou (92369) 91241. Ilmen (80190) 78696 was awarded grand championship at the American Royal Live Stock Show at Kansas City in 1912. Kangourou (92369) 91241 was awarded reserve championship at the American Royal in 1913.

Most of these mares were worked on my farm the past summer and every attention was given to secure them safe in foal.

My stallions consist of yearlings, two's and three-year-olds, with as much weight, bone and action as you could ask for.

I have several colts that now weigh over 900 pounds, and among them are the second and third prize winners at the Iowa State Fair.

THURSDAY, JANUARY 8

WRITE FOR CATALOGUE

When the clock shows 'Ten-Thirty' we will be selling horses.

NOTE.—Will also sell fifty (50) head of grade farm mares, most of them in foal. Also fifty (50) head of mare mules weighing 1,100 pounds, with more fat and quality than any two carloads of mules ever before offered at public auction in Kansas. Five teams of these mules will be sold in pairs, the balance in car lots.

AUCTIONEERS—SAYER, CURPHEY AND SWARD.

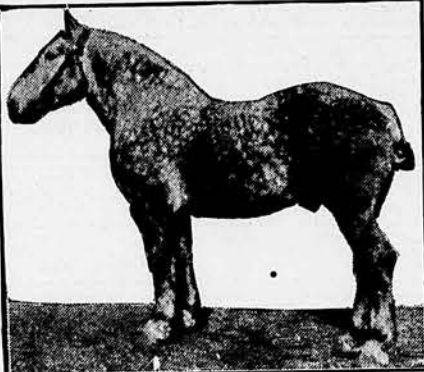
C. W. Lamer, Salina, Kansas

(OFFICE AT NATIONAL HOTEL.)

IMPORTED MARES AND STALLIONS

Importation arrived October 1, 1913. I have personally selected the best young stallions and mares I could buy in France and Belgium, two and three years old. They all have good breeding quality, sound and good colors, and will make ton horses. Every horse absolutely guaranteed. If you are looking for a first-class stallion or a good pair of mares, come and see me. I mean business. My barns three blocks from Santa Fe depot.

W. H. RICHARDS
Emporia, Kansas



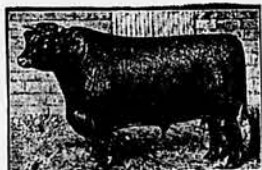
ROBISON'S PERCHERONS

Stud headed by the champion, Casino 27830 (45462). Stallions and mares of all ages for sale. Come and see the largest pure-bred herd in the West before buying. One hundred and fifty head for sale.

J. C. ROBISON
Towanda - - - Kansas.



SHORTHORN HEIFERS FOR SALE



We must reduce our herd, and offer for immediate sale twenty-four choice heifers in age from 18 to 36 months. All but three are nice dark roans. They have from five to eight Scotch tops and represent some of the very best families. Five have had their first calf. Of the remainder all but four are bred to our bred bull, Alexander Chief 372671. They were all sired by British Bond, a pure Scotch bull, weight 2,200, sired by Imp. British Glory. A very choice lot, and will be priced reasonably in lots to suit. We are anxious to move them within the next two weeks. Also eighteen bulls of serviceable age, same breeding.

HOADLEY & SIGMUND, Selden, Sheridan County, Kansas.

25 HEAD STALLIONS and MARES

The cheapest place in America to buy. A dollar saved is two earned. This is what we do for you. Home-bred stallions as low as \$300. Our imported horses, the cream of Europe, at prices unequaled on earth. Two-year-olds from 1,650 to 2,000 pounds now, with a world of bone and quality. Forty head of real brood mares, big-boned, rugged, matched pairs of blacks, grays and bays, all bred and safe in foal by our head horse. Write and see what we say. "We more than meet competition, we create it."

L. R. WILEY, EMPORIA, KAN.



AMERICA'S FAMED HORSE DISTRICTS This particular district, famed for Percherons. The Chandler herd, noted for draftiness, substance and bone, is a strong factor in turning the tide to American-bred Percherons. Possibly not French fat, but bigger frames, stronger vitality, better feet and legs. American users love this useful type and get them from my big bunch reg. studs, yearlings to fours. Write today. **FRED CHANDLER**, Route 7, Charlton, Iowa.



BLUE VALLEY STOCK FARM

Largest Belgian Importing and Breeding Establishment in the West. Importation of Belgian stallions and mares arrived Sept. 7. Many of our horses were medal winners at the foreign shows this year; all are sound, acclimated and ready for service. Lowest prices and safest guarantee of any firm in the business. Also a few extra good Percherons. Write us. **W. H. BAYLESS & COMPANY**, Blue Mound, Linn Co., Kan.

54 Percheron Stallions

We have 54 as good stallions as can be found in any herd, from coming 2's to 5-year-olds. We can sell a better and a bigger stallion for the money than any firm in the business. We fully guarantee every stallion. Write us what you want. **BISHOP BROTHERS**, Towanda, Kansas.



FIELD NOTES

Dan Wilcox, owner of Crystal herd of O. I. C.'s, Cameron, Mo., is offering a few choice boars and also some bred gilts. The boars are by Frost's Buster, the great sire and prize winner. They are out of the best sows of this great herd, are strictly high class herd header prospects and are priced low. The gilts are a select lot; some are bred to Frost's Buster, others to his great young boar, Expectation, a son of Frost's Buster and out of the great sow, Cole Helen, and a few to the great young boar, Illustration. If you want the kind that win the ribbons at the big fairs Mr. Wilcox has them. His prices are right.

M. E. Moore & Company, the old established Holstein breeders of Cameron, Mo., have reported to us the completion of two 7-day official tests. These tests were conducted under the supervision of the Missouri Experiment Station. The record of Belle Bessie Korndyke was 590 pounds milk and 23.6 pounds butter. The 4-year-old, Shadybrook Lady Payne, made a milk record of 519.4 pounds milk and 24.5 pounds of butter. In these days of stiff competition, authenticated tests of dairy animals are becoming more and more important. The proprietors of this old established herd recognize this fact and are making a practice to secure as many of these tests of their cows as possible. Kindly mention Kansas Farmer when writing.

JERSEY CATTLE.

WEST VIEW JERSEY FARM

Herd Bulls—Financial Countess Lad, the only national champion whose dam, Financial Countess, was also national butter champion. Ruby's Financial Count, Register of Merit dam with milk record of 56 pounds per day, sire a Register of Merit son of Financial King. Cows in calf to Financial Lad for sale.

J. E. JONES, Proprietor, Nowata, Okla.

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.

W. N. BANKS, Independence, Kan.

REGISTER OF MERIT JERSEYS.

Offer a fine young cow in milk and bred to Oakland's Sultan for \$150. Also a granddaughter of Golden Fern's Lad bred to same bull, \$200. Choice heifers, \$100 up. Bulls from high-testing dams, \$50 to \$150, including a son of Gambo Knight.

R. J. LINSKOTT, Holton, Kansas.

GREEN HILL JERSEY FARM

For Sale—Several young bulls up to 15 months old, sired by Viola's Majesty. Dams, American and imported cows of choice breeding and individuality.

D. LEE SHAWHAN, Lees Summit, Mo.

GOLDEN RULE JERSEY HERD

Headed by the Island-bred bull, Cicero's Rochette Noble. We are consigning choice heifers bred to this bull to the S. S. Smith sale to be held here December 12; also heifer calves and bulls of serviceable age. Ask for catalog.

Johnson & Nordstrom, Clay Center, Kansas.

BENEFER JERSEY CATTLE.

A few bull calves for sale, sired by Sultan of Comfortholm. Dams of Golden Lad breeding. Also high scoring S. C. White Leghorn cockerels.

E. L. M. BENFER, Leona, Kansas.

JERSEYS FOR PROFIT

AMERICAN JERSEY CATTLE CLUB, 324 W. 23d St., New York.

RED POLLED CATTLE

AULD BROTHERS
Red Polled Cattle

Heifers and young bulls for sale. Prices right. Herd headed by Prince, one of the best sons of Actor.

AULD BROS., Frankfort, Kansas.

RED POLLED CATTLE

For Sale—A choice lot of registered cows, bulls and heifers. Several herd headers.

HALLOREN & GAMBILL, Ottawa, Kansas.

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.

GEO. GROENMILLER & SON, Pomona, Kansas.

RILEY COUNTY BREEDING FARM. Registered Red Poll Cattle. Fifty head in herd, headed by 2,400-pound Commander 11372. Six extra choice coming yearling bulls for sale.

ED NICKELSON, Leonardville, Kansas.

RED POLLED CATTLE

A few choice bulls, ready for service, priced reasonable.

I. W. POULTON, Medora, Kan.

PHILLIPS COUNTY HERD OF RED POLLS.

Young bulls ready to ship. Bred cows and heifers, best of breeding. Inspection invited.

Charles Morrison & Son, Phillipsburg, Kan.

RESER & WAGNER'S RED POLLS.

Richly bred herd headed by Waverly Monarch. Bulls of serviceable age all sold.

Fresh cows and young bulls for sale in spring. Reser & Wagner, Bigelow, Kan.

ANGUS CATTLE

CHOICE REGISTERED ANGUS CATTLE

Cows, heifers and young bulls. Nothing but the best. Wire, write or phone.

R. S. WILLIAMS, LIBERTY, MO.

Excelsior Springs car line route. Only 14 miles from Kansas City. Car every 45 minutes. Home 'phone 262.

REGISTERED ANGUS BULLS

For Sale—Choice young herd bulls, from best families; also registered Poland China boars and gilts of extra quality. Prices reasonable. Write at once.

K. H. BROWN, Bolivar, Polk Co., Missouri.

To reach the well to do farmers of Kansas and surrounding territory with a heart-to-heart business talk, use our Classified Columns. Ready buyers at a Low Cost.

SHORTHORN CATTLE

LOOKABAUGH'S SHORTHORNS.

At private sale. Six or nine months' time if desired. Young heifers and bulls, \$100 and up. Two heifers and bull, not related, \$225 for the three. Others higher. High-class herd bulls close to imported Scotch dams, sired by such sires as Lavender Lord by Avondale. Nicely bred young heifers from milking strains. Young bulls, the farmer's kind. Cows with calf at foot and rebred. Great variety of prize-winning blood. If you want breeding stock, do not miss this opportunity. My foundation Shorthorns carry the blood of the best families and most noted sires of breed. Over 200 head from which to select. If you cannot come, write.

H. C. LOOKABAUGH, Watonga, Blaine County, Oklahoma.

Pearl Shorthorn Herd

Yearling bulls all sold. Have 20 bull calves, oldest a March calf. Reds, roans and red with white marks. Some of them from white heavy milking dams. Some sired by the big roan Scotch bull, Valiant, and some by Highland Chief. Few coming two. Visitors always welcome.

C. W. TAYLOR

Abilene, Kansas

TOMSON BROS.' SHORTHORNS

200 HIGH-CLASS CATTLE, 20 leading Scotch families, other standard sorts also. We offer 20 heifers, yearlings and two-year-olds, choice breeding and quality; 10 select bulls of Augustus, Victoria and other Scotch families; breeding stock of all ages. Address either farm. Jas. G. Tomson, Carbondale, Kan., R. R. station Wakarusa, on main line Santa Fe, or Jno. R. Tomson, Dover, Kan., R. R. station Willard, on main line Rock Island.

Cedar Lawn SHORTHORNS

For Sale—Six choice young bulls ready for service, in age from ten to fourteen months. Good individuality and of the best known Short-horn families. Also few big-type Poland China boars and gilts. Inspection invited.

S. B. AMCOATS, Clay Center, Kan.

Springdale Shorthorn Herd

Headed by Athens' Scotchman, a son of the noted Athens Victor. Cows represent the very best milking families. Herd numbers about 70 for sale; 15 choice young red bulls, the blocky, beefy kind. Also 50 Silver Laced Wyandotte Cockerels. Inspection is invited.

Alvin Tennyson, Lamar, (Ottawa Co.) Kan.

YOUNG BULLS

Eight to 13 months, weight 700 to 900. Big-boned growthy fellows, nicely bred. Four or five nice cows and heifers. Either bulls or females, \$100 to \$150.

JEWELL BROS., Humboldt, Kan.

SEAL'S MILKING SHORTHORNS.

Eight choice young red coming yearling bulls, sired by Seal's Gauntlet, grandson of Gifford's Red Gauntlet. Same number of choice young heifers. Attractive prices for a short time. Joseph Seal, Wakefield, Kan.

Dual Shorthorns, Hornless. 5415½ pounds butter sold 1911. No calf tasted skim milk. Infant male calves. J. H. Walker, Lathrop, Mo.

When writing advertisers, please mention KANSAS FARMER.

POLLED DURHAM CATTLE

ROAN HERO

THE INTERNATIONAL CHAMPION, AND

ACACIA PRINCE X 8079-338156

the first prize winners, head my herd of Double Standard Polled Durhams. M. P. Ry. 17 miles S. E. of Topeka, Kan. Farms adjoins town. Inspection invited.

D. C. VAN NICE, Richland, Kan.

POLLED DURHAMS

FOR SALE TEN HERD BULLS

sired by Roan Choice, the junior champion of 1911. Prices reasonable. Write and see my herd.

C. J. WOODS, CHILES, KAN.

Scottish Baron For Sale

Double standard, weight 2,200; extra individual. Also 12 Shorthorn cows in calf to him, and younger bulls. Inspection invited.

JOSEPH BAXTER, Clay Center, Kansas.

POLLED DURHAMS AND PERCHERONS

FOR SALE.

Young bulls and heifers sired by a son of Roan Hero. Also some choice young stallions and fillies. Prices right.

D. L. & A. K. SNYDER, Winfield, Kansas.

FOR SALE—Four choice yearling D. S.

Polled Durham bulls with quality, size and fine color. Write or come and see them.

C. M. ALBRIGHT, Overbrook, Kan.

HORSES AND MULES.

JACKS AND JENNETS

20 Large Mammoth Black Jacks for sale, ages from 2 to 6 years; large, heavy-boned, broken to mares and prompt servers. A few good jennets for sale. Come and see me.

PHIL WALKER,

Moline, Elk Co., Kansas.

PERCHERONS FOR SALE

My entire herd. All line bred Brillants. Mares, Lulu and Fancy; two-year-old filly, Goldust; stallion, Teddy R., coming four; two 2-year-old stallions, two suckers, both stallions. All recorded.

Stallions have certificates from Stallion Registry Board of Nebraska. All sound.

H. C. STRYKER, Rising City, Nebraska.

SHORTHORN CATTLE



HOLSTEIN CATTLE.



Pure-bred Registered
HOLSTEIN CATTLE

The Capital, Topeka, Kansas, June 16, said: "When Maid Henry, the famous 13-year-old Holstein owned by the Kansas Agricultural College, was working so hard for the record of 19,600 pounds of milk and 835 pounds of butter in a year's time, dairymen prophesied that the Maid would be ruined. But Maid Henry returns to show that she is some cow even after breaking a record. She has a 114-pound male calf, born just the other day, to prove it."

Send for FREE Illustrated Descriptive Booklets.

Holstein-Friesian Asso., F. L. Houghton, Sec'y, Box 114, Brattleboro, Vt.

Bonnie Brae Holsteins

80 Head of high-grade Holstein heifers and cows from 2 to 6 years of age. A number just fresh. All to freshen this fall and winter. Also a few young bulls, high grade and registered.

IRA ROMIG, Station B, Topeka, Kansas.

SUNFLOWER HERD—A Herd Sire, Hill-top Pontiac Abbecker, 116019. Born January 16, 1913. Dam, 21 pounds at 4 years. Twenty of his nearest tested dams average 25 pounds butter, 7 days. Mostly white, a choice individual, ready for service. Price, \$250. Other good ones, \$150 up. Bull calves, \$100 up. The best are the cheapest.

F. J. SEARLE, Oskaloosa, Kan.

M. E. MOORE & CO.

CAMERON, MISSOURI. Choice young Holstein cows and heifers for sale. Also few young bulls. Tuberculin tested.

PURE-BRED SELECTED HOLSTEINS.

We now have about 50 head cows, three to six years old, mostly springers, some to freshen soon; 12 head two year old first calf heifers; a few young bulls. Cows are high grade and bred to registered bulls.

Edmunds & Young, Council Grove, Kansas.

HIGH-CLASS HEAVY SPRINGING GRADE HOLSTEIN COWS

for sale at Manhattan, Kan., during the week of the Farmers' Short Course at the Kansas State Agricultural College.

ARNOLD & BRADY, MANHATTAN, KAN.

HOLSTEINS FOR SALE.

Large registered bulls, cows and heifers. Also five carloads of grade cows and heifers. Our herd is state inspected and tuberculin tested.

THE SPRINGDALE STOCK RANCH, Concordia, Kansas.

SPRINGDALE FARM HOLSTEINS.

Five high-grade heifers and pure-bred bulls not related. Heifers marked half and half, bred to pure-bred bull three-eighths white, to freshen March 1 to 14. Priced to sell.

S. E. ROSS, ROUTE 4, CRESTON, IOWA.

For Sale—Fine Holstein bull 15 months

old, sired by Butter Boy; extra good calf. Also good milk cow.

DR. E. G. L. HARBOUR, Baldwin, Kan.

CHENANGO VALLEY GRADE HOLSTEINS

Two hundred nicely marked well-bred young cows, and heifers, due to freshen within the next three months. Also registered bulls ready for service.

F. J. HOWARD, Bouckville, N. Y.

HOLSTON'S HOLSTEINS.

Home of Madison Diamond DeKol 94475, one-day milk record 101 pounds 10 ounces. Six bulls for sale, calves to yearlings, grandsons Madison Diamond DeKol. One Pontiac bred bull. CHAS. HOLSTON & SONS, R. 1, Topeka, Kan.

COOKE'S HOLSTEINS.

Cows 3 years or older, \$225 to \$600. Nothing cheaper. No heifers or heifer calves for sale. Bulls 4 to 10 months, \$125 to \$175. Mostly sired by grandson of Pontiac Korn-dy.

S. W. COOKE & SONS, Maysville, Mo.

HOLSTEIN BULL CALVES always on

hand, and worth the price.

H. B. COWLES, Topeka, Kansas.

BUTTER BRED HOLSTEINS.

For Sale—Some choice bull calves. Prices very reasonable. Write me your wants today, as these bargains will not last long.

J. P. MAST, Scranton, Kan.

HEREFORD CATTLE

LANDER'S

Brookside Herefords

Herd headed by Gay Lad 14th by the champion Gay Lad 6th and out of Princess 16th. Six yearling bulls and ten bull calves for sale, also seven yearling heifers, the best of breeding and choice individuals. Prices reasonable. Write or call.

WARREN LANDERS, Savannah, Missouri.

When writing advertisers, please mention KANSAS FARMER.

FIELD NOTES

FIELD MEN.

O. W. Devine.....Topeka, Kan.
Jesse R. Johnson.....Clay Center, Kan.
W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Percherons.
Jan. 8—C. W. Lamer, Salina, Kan.
Jan. 27, 1914—Lee Bros., Manhattan, Kan.
Feb. 17—Joe Dvorak, Marion, Kan.
Feb. 25—J. C. Robinson, Towanda, Kan.

Jack.
Feb. 26—H. J. Hineman & Sons and D. J. Hutchins, Sterling, Kan.

Holstein Friesians.
Feb. 3-4—Henry C. Glissman, Omaha, Neb.

Jersey Cattle.
March 5—Everett Hays, Hiawatha, Kan.

Poland Chinas.
Jan. 20, 1914—Roy Johnston, South Mound, Kan.

Feb. 5—John B. Lawson, Clarinda, Iowa.
Feb. 7—Wigstone Bros., Stanton, Iowa.
Feb. 10—H. B. Walter, Effingham, Kan.
Feb. 11—H. C. Graner, Lancaster, Kan.
Feb. 11—C. S. Nevius, Chiles, Kan.

Feb. 12—H. L. Faulkner, Jamesport, Mo.—at Norton, Kan.
Feb. 17—H. Fegenmeyer, Clarinda, Iowa.

Feb. 17—L. E. Klein, Zeandale, Kan.
Feb. 17—E. M. Wayde, Burlington, Kan.
Feb. 18—J. R. Cline, Iola, Kan.

Feb. 18—J. H. Harter, Westmoreland, Kan. Sale at Manhattan.
Feb. 18—(Night sale)—L. R. McClarnon, Braddyville, Iowa.

Feb. 19—J. O. James, Braddyville, Iowa.
Feb. 19—W. Z. Baker, Rich Hill, Mo.
Feb. 19—J. L. Griffith, Riley, Kan.

Feb. 20—W. A. Baker, Butler, Mo.
Feb. 20—A. J. Swingle, Leonardville, Kan.
Feb. 26—Edward Frazier, Drexel, Mo.

Feb. 27—W. A. Davidson, Simpson, Kan.
Feb. 28—A. R. Reystead, Mankato, Kan.
March 3—George Wedd & Son, Spring Hill.

March 4—L. V. O'Keefe, Bucyrus.
March 4—John Kemmerer, Mankato, Kan.
March 10—Joshua Morgan, Hardy, Neb.

Duroc Jerseys.
Jan. 27—Ward Bros., Republic, Kan.
Jan. 30—N. B. Price, Mankato, Kan.

Jan. 31—A. M. Rinehart & Son, Smith Center, Kan.
Feb. 6—Leon Carter, Asherville, Kan.

Feb. 7—Horton & Hale, DeKalb, Mo. Sale at Rushville, Mo.
Feb. 8—Howell Bros., Herkimer, Marshall County, Kan.

Feb. 9—E. A. Trump, Formoso, Kan.
Feb. 10—Kansas Agricultural College, Manhattan, Kan.

Feb. 11—Thompson Bros., Garrison, Kan.
Feb. 12—J. A. Porterfield, Jamesport, Mo.
Feb. 12—Edw. Fuhrman & Sons, Oregon, Mo.

Feb. 21—Dana D. Shuck, Burr Oak, Kan.
March 5—R. P. Wells, Formoso, Kan.
March 7—E. G. Munsell, Burlington, Kan.

March 13—Samuel Drybread, Elk City, Kan.

More Dairy Cows.
L. R. Brady, of Manhattan, Kan., is now at Fort Atkinson, Wis., securing a carload of high-grade Holstein cows.

Colonel Brady says they will be the best he can buy. These cows will at once be for sale to the dairymen and farmers of Kansas. See Arnold & Brady advertisement in this issue.

Wakefield, Kan., Dec. 11, 1913. Kansas Farmer, Co.—My ad in Kansas Farmer has surely brought results. Had inquiries from six states and have sold six heifers and a young bull to Robert H. Hanson, Jamestown, Kan., and a young bull to J. M. Baker, White City, Kan., and still they are going.

Will have to employ a stenographer if they don't let up. Yours truly,

JOSEPH SEAL.

Axelton Made Good Jersey Sale.
E. L. Axelton's dispersion sale at Garrison, Kan., December 11, was well attended and very satisfactory prices received for the registered Jerseys. The roads were very bad and the Jerseys were sold along with a lot of other stock and as a part of a general farm sale. The general average was just a trifle below \$90 per head, calves and all. A partial list of buyers follows:

1—David Delair, Oketo.....\$150.00

2—W. Johnsmire, Cleburne.....120.00

3—Theo. Haag, Holton.....110.00

4—C. B. Johnson, Garrison.....85.00

5—Theo. Haag.....95.00

6—C. B. Johnson.....87.50

7—Theo. Haag.....125.00

8—Theo. Haag.....125.00

9—Howard Bayles, Garrison.....82.00

11—R. O. McGee, Marysville.....95.00

14—J. A. Comp, White City.....55.00

15—W. F. Holcomb, Clay Center, Neb. 47.50

Williams' Angus Cattle.
Don't fail to write R. S. Williams, Liberty, Mo., about his herd of Angus cattle which is for sale. Mr. Williams has cows, bulls and heifers for sale at reasonable prices. They are in good condition and carry the blood lines of all the best Angus families—the Trojan Eras, Prides, Blackbirds and Drummonds. Mr. Williams has a few imported cows in the herd that he will sell. He has a choice lot of yearling and two-year-old heifers that would make money for anyone who would take care of them.

Please read ad in this issue and write your wants or take the electric car at Kansas City and go see these cattle. The pastures are right at the edge of town. Kindly mention Kansas Farmer when you write.

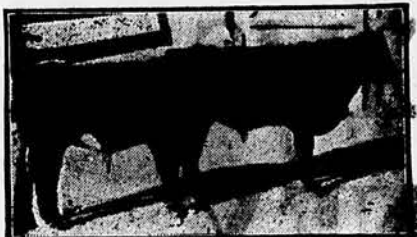
Kafir Demand on Increase
(Continued from page 2.)

in the last month. The mild weather, which enabled the farmers to save much feed, and the rich wheat pastures, have helped to stimulate buying of feeder lambs and sheep by Kansas, and that state has been the heaviest purchaser at Kansas City the last month. Just now, at least, the investments in feeding lambs and sheep appear much safer than the purchases of stocker or feeder cattle.

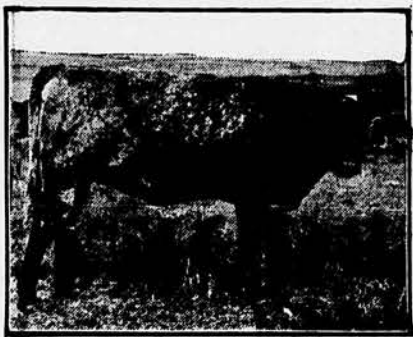
However, much depends on the proper handling of the former. Those feeding them should not market half-fat offerings. There will be too many of these following storms in the fore part of this winter from Iowa and other states where thousands are being run in corn fields without protection.

FIELD NOTES

Fine Bronze Turkeys.
This week we start advertising for C. F. Behrent, proprietor of Highland Stock Farm, Oronoque, Kan. Mr. Behrent offers for sale 20 big heavy-boned nicely bronzed turkey toms at the very low price of 3.50 each, and 12 fine young hens of equal quality at \$2.25 each. Mr. Behrent is also a breeder of registered Hereford cattle and big-type Poland China hogs. The fine bull, Shadeland, heads his Hereford. The cow herd is bred along the best lines off Hereford breeding, with lots of Anxiety blood. Mr. Behrent owns jointly with his neighbor, J. F. Foley, the great breeding boar, Blue Valley Look, third prize boar at Hutchinson this year. Mr. Behrent is a young man of unusual intelligence and he loves good stock, and will in the future devote his energies to building up his herds. When in the market for anything in his line, write him freely, mentioning Kansas Farmer.



Taylor Still Has Bull Calves.
The above cut was made from a snapshot taken on the farm of C. W. Taylor of Abilene. Mr. Taylor has been offering some extra good Duroc boars and some Scotch and Scotch topped yearling Short-horn bulls, but reports to us that the yearlings are all gone and that he is having to answer a lot of unnecessary questions as a result of his ad in Kansas Farmer. He still has 20 calves left, the oldest being a March calf. He is changing the copy of his ad this week, offering these bull calves. He has also sold all of his Duroc Jersey boars except one. Kindly look up him ad in this issue and in writing to him please mention Kansas Farmer.



The accompanying cut is from a snapshot of one of the fine horn heifers now for sale by Hoadley & Sigmund, Selden, Kan. Few western herds can show a line of heifers like this. They have from five to eight Scotch tops and are choice individuals. See advertisement in this issue.

When writing advertisers, please mention KANSAS FARMER.

Bred Sows and Gilts.
V. E. Carlson, our advertiser located at Formoso, Kan., reports the sale of the Holstein bull recently advertised to a man in Oklahoma. He is just about sold out on his big-type Poland China hogs and asks us to change his advertisement to spring and fall yearling gilts and tried sows, all bred for spring litters to the great big boar, Mollie's Jumbo, one of the biggest and best Poland China hogs in this section of Kansas. Mollie's Jumbo is a son of Old Jumbo. He stands 36 inches high and has 10-inch bone, measures 74 inches from end of nose to root of tail. Mr. Carlson bought this boar at Peter Mow's sale last June. This sale made an average of \$164 on hogs, and this boar was the only one coming to Kansas. The gilts and tried sows offered are all of large type and are good individuals. The prices asked are very reasonable, and they won't last long at such prices.

Madison Diamond DeKol 94475, one of the great cows of Charles Holston & Son's herd. As a 3-year old this cow made an official seven-day record of 461 pounds of milk and 17.55 pounds butter, a thirty-day



record of 1951.7 pounds milk and 69.5 pounds butter. She has an unofficial seven-day record as a six-year old of 697.8 pounds milk, 25 pounds butter, and a one-day milk record of 101.8 pounds. If interested, in high class Holsteins look up their card in Kansas Farmer. They can suite you.

The Harriman Are Pleased.
In a letter from Colonel Harriman this week he says: "Enclosed find two checks, one for my auction card and one for ad of Harriman Brothers' Short-horn cattle ad. We have had good results from the cattle ad. We sold a very fine Scotch bull to Henry Forbes, Topeka, Kan., and made other sales through the advertising." The Harriman Brothers, of which Colonel Harriman is a member, have a very fine herd of cattle and a number of extra good Scotch bulls for sale. The Colonel is one of Missouri's most able auctioneers, and has made some of the best sales on record. If you are going to sell horses, jacks, Short-horn cattle or big-type Poland China hogs, you can not make a mistake in employing Col. R. L. Harriman, of Bunceton, Mo. Please read ad in this issue and write or wire for date. Kindly mention Kansas Farmer.

POLAND CHINAS



ADVANCE 60548

The mammoth 2-year-old grandson of the great Expansion is the sire of the great line of fall pigs I am offering for sale at weaning time. Either sex. The dams of these pigs are a splendid bunch of brood sows of the Black Mammoth breeding. None better in big-type Polands. Priced to sell quick. Book your order early and secure choice, mentioning Kansas Farmer.

PAUL E. HAWORTH, Lawrence, Kansas.

Spotted Poland Chinas

Some splendid spring gilts for sale, or will hold and breed for early next spring litters. A few dandy boars left. Booking orders for fall pigs. These are the old original big-boned spotted kind.

THE ENNIS FARM, Marine Station, Mo. (24 Miles South of St. Louis.)

ERNHART BIG TYPE POLAND CHINAS

50 head of strictly big type Poland China pigs for sale at reduced prices for 30 days. Herd headed 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. ERNHART & SON, Bechtel, Kansas.

P. L. WARE & SON'S POLAND CHINAS

FOR SALE—Spring boars, sows and gilts, bred or open. Also one extra good fall boar, a herd header. Prices reasonable. Write us.

P. L. WARE & SON, Paola, Kansas.

SPRING BIRDS, 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. CHASE, Meriden, Kansas.

BIG ORANGE AGAIN BOARS.

Extra good March and April boars, sired by "Big Orange Again," and "Gritter's Surprise." Dams—By "A. Wonder," "Miller's Chief Price," and Fodendorf's "Chief Price Again." Immuned. Priced right.

A. J. SWINGEE, Leonardville, Kan.

TWO GOOD POLAND CHINA SPRING BOARS

Sired by U. Wonder and out of Mogul sows. A few spring gilts by U. Wonder and Orange Dad by Big Orange. Ninety fall pigs, will sell pairs or trios. Write us today.

THURSTON & WOOD, Hildale, Kan.

CLAY JUMBO POLAND CHINAS

Headed by the only Clay Jumbo, assisted by Big Joe, an A. Wonder boar. Six choice fall and twelve selected spring boars at bed rock prices. Also gilts.

EAS. W. ANDERSON, Leonardville, Kan.

Hildwein's Big Type Polands

Herd headed by Gold Standard Junior and Wonder Ex. Herd sows representing best blood lines.

WALTER HILDWEIN, Fairview, Kan.

HARTER OFFER'S POLAND BOARS

No fall sale. Twenty choice spring boars, tops of 35, best of breeding, \$20 each. Also five fall boars, good ones, \$25 each. Nothing but the best shipped.

J. H. HARTE, Westmoreland, Kan.

BIG POLAND CHINA SPRING PIGS

Sired by Peter Mow 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 Bedemacher, Box 13, Mulberry Grove, Illinois.

GREAT SON OF GOLD METAL

Heads our herd, mated with Utility, dam of the noted \$530 litter; Colossus, O. K. Price and Gold Metal. Fine lot of pigs out of these sows, most of them sired by Melbourne Jumbo. Inspection invited.

AUSTIN SMITH, Dwight, Kan.

BIG TYPE POLAND CHINA GILTS.

Full yearlings and tried sows, bred to "Mollie's Jumbo," 74 in. long, 36 in. high and has 10-in. bone. Gilts \$20 and up; fall gilts and tried sows \$20 each. They are out of big dams. V. B. Carlson, Formoso, (Jewell Co.) Kansas.

FOLEY'S EXTRA CHOICE POLANDS

Five spring boars, good ones; ten extra choice spring gilts bred for spring also a few tried sows bred. Reasonable prices.

J. F. FOLEY, Oronoque, (Norton Co.) Kan.

Immune Poland China Boars and Gilts.

Ten big strong spring boars, \$20 each if sold soon. Thirty spring gilts, bred, \$25 each until January 1, or while they last.

Hubert J. Griffiths, Clay Center, Kansas.

Merton's Big Smooth Poland Chinas

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.

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.

Faulkner's Famous SPOTTED POLANDS

We are not the originator, but the preserver of the:

Old Original Big-Boned Spotted Polands: Write your wants. Address

ET. L. FAULKNER, Box K, Jamestown, Mo.

ASHEVILLE'S BIG SMOOTH POLANDS

Eight good big smooth spring boars still for sale, mostly by First Quality, others by Pan Look, out of our big sows. Popular prices. Jas. Arkell, Junction City, Kansas.

FIFTY IMMUNE POLAND FALL PIGS

Extra choice, either sex, sired by the great King of Kansas, and out of mighty big sows. Attractive prices.

J. L. GRIFFITHS, Riley, Kansas.

HAMPSHIRE HOGS

HIGH QUALITY HAMPSHIRE.

Spring Boars and Gilts, sired by prize-winner, T. R. Fancy. Will sell Mollie 6th, one of my best sows, due to farrow October 12.

S. E. SMITH, Lyons, Kansas.



ECLIPSE FARM HAMPSHIRE.

Bred sows, spring and summer pigs for sale. A. M. ECLIPSE, Medora, Kansas.



HAMPSHIRE HOGS.

Bred sows, spring pigs, pairs or trios not akin. Pat Malloy and General Allen blood lines. Prices reasonable. F. C. Wittorf, Medora, Kan.

POLAND CHINAS

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.

R. B. DANER, Hiawatha, Kansas.

WONDER POLAND CHINA HERD
Headed by Model Wonder, assisted by a son of Blue Valley. Mated to big sows as can be found. We offer spring gilts by first named boar and bred to the other ones at reasonable prices.

O. R. STRAUSS, Milford, Kan.

BRED SOWS FOR SALE.
I will sell a few choice Poland/Gilts, brood sows, sired by Missouri Governor and bred to a son of Kansas Hadley by Big Hadley. A few extra good spring boars for sale. Write me. L. R. WILEY, SR., Elmdale, Kan.

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

SPOTTED POLAND CHINAS. June and October Boar Pigs for Sale. A. S. ALEXANDER, Burlington, Kan.

OHIO IMPROVED CHESTERS

Crystal Herd O. I. C's

Headed by Frost's Buster 29745 by Thea 30442. A few choice boars by this great sire, \$25 while they last. Will weigh 225 pounds and up. Bred gilts, March farrow, \$35 to \$50. Gilts bred to Frost's Buster, Expectation, and Illustration. They are the kind that win the ribbons.

DAN WILCOX, Cameron, Mo.

FROST'S O. I. C's

FOR SALE—Ten good spring gilts, 70 fall pigs in pairs or trios not akin. All sired by prize winners. Address—

S. D. & B. H. FROST, Kingston, Mo.

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.

D. W. WOLFE, Route 2, Carrollton, Mo.

O. I. C. SWINE

Harry W. Haynes, Meriden, Kansas.

AUCTIONEERS.

Be an Auctioneer

Travel over the country and make big money. No other profession can be learned so quickly that will pay as big wages. Write today for big free catalog of Home Study Course, as well as the Actual Practice School, which opens January 5, 1914.

MISSOURI AUCTION SCHOOL
Largest in the World. W. B. Carpenter, Pres., 1400-1404 Grand Ave., Kansas City, Mo.

Col. Jas. T. McCulloch Live Stock and General Auctioneer. Ten years of experience in the best breeding.

Clay Center, Kansas.

R. L. HARRIMAN

LIVE STOCK AUCTIONEER. Bunceton, Missouri.

Col. Wm. Myers Live Stock, Best Estate and General Auctioneer. Beloit, Kansas.

LAFE BURGER

LIVE STOCK AND REAL ESTATE AUCTIONEER. Wellington — Kansas.

W. C. GURPHEY Pure-Bred Stock and Big Farm Sales. Salina, Kansas.

Col. N. E. Leonard Live Stock and General Auctioneer. Use up-to-date methods. Pawnee City, Nebraska.

COL. FLOYD CONDRA Stockdale, Kansas. Guarantees his work.

Col. Frank Regan Live Stock and General Auctioneer. Estlin, Jewell County, Kansas.

Col. C. A. HAWK Live Stock and General Auctioneer. Effingham, Kansas.

L. R. BRADY Fine Stock Auctioneer. Ask those for whom I have sold. Manhattan, Kansas.

Col. Jesse Howell Live Stock and General Auctioneer. Up-to-date methods. Herkimer, Kan.

STANDARD BOOKS

FOR THE FARMER AND BREEDER. Address, Kansas Farmer, Topeka, Kan.

HORSES AND MULES

JACKS AND JENNETS.

Eighty large-boned black mammoth Jacks, 15 to 16 hands standard, guaranteed and priced to sell. The kind all are looking for. Also good young Percheron stallions. Reference, banks of Lawrence. Forty miles west of Kansas City, on Santa Fe and U. P. Railroads.

AND H. HARTMAN, Lawrence, Kansas.

CHANCE VALLEY JACK FARM.
Sixteen jacks, from 4 months to 3 years old. Yearlings up to 15 hands standard. One jack just turned 3 years old, weight 1,050. Forty jennets in herd, second to none, some for sale. Twenty years a breeder.

W. D. GOIT, Xenia, Bourbon County, Kan.

Kentucky Jack and Percheron Farms.
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NEWBORN PIGS
Gilt pigs, 100 to 125 weeks old, either sex. Sired by Robin Hood, Premier 2d, or Ashland, a son of Elmer Lord, Fry mider. Nothing but the very choicest specimens offered. Bred, registered, crated, H. G. H. Hare, one, \$20; two, \$35; three, \$50.

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T. A. BORMAN

READY ABOUT JAN. 25th, 1914

SURE FEED IS SURE MONEY

*T. A. Borman, editor of
Kansas Farmer, has
written a book pointing
out the cash value of
grain sorghums to the
farmers of the southwest*

THE BORMAN SORGHUM BOOK

is an interesting and valuable Book showing how Kafir, Milo and Cane fed through the silo to live stock of all kinds will bring assured prosperity and will build permanent homes

In this year 1913 the value of sorghums—kafir, milo, Jerusalem corn, sorghum—grown in Kansas exceeded the corn value by four million dollars. The acre corn value was \$2.01. The acre sorghum value was \$7.28. This shows \$5 an acre in favor of sorghums compared with corn, in a year of severe dry weather. But not all the land in Kansas should be planted to sorghums—the book tells why.

For 12 years in Kansas kafir has been 23 per cent more valuable than corn! That is the kafir record for 1901-1912, inclusive. Think of a difference in favor of kafir of \$2.12 per acre! The kafir was planted on the poorer and drier soils, too. This is a comparison of the poorer lands with the best. The book tells of the methods of kafir growers who far exceed this average.

Kafir is selling in the Kansas City market now at 100 per cent higher than a year ago. Corn is only 40 per cent higher. Kafir is higher than ever before in the history of the Kansas City grain trade. The true value of kafir as a feed is being recognized. The book tells why a farmer can feed it at a greater profit than heretofore.

Kafir—including all its numerous varieties—is the third largest cereal crop in the world, feeding more than 700 million people. It is grown in Africa, Egypt, Japan and other countries under those conditions of climate and soil which make it adapted to the Southwest Plains region of which Kansas, Colorado, Oklahoma and Texas are a part. The book tells why kafir, milo and cane are the "sure feed crops" of these states.

The grain of the sorghums—kafir, milo, etc.—is near the equal of corn in feeding value. The forage in the shock or through the silo is at least the equal and may be superior to corn. The book tells why this is so and how the growth and feeding of sorghum crops will increase the live stock-carrying capacity of the land.

The proper use of grain sorghums will increase the value of every acre of land in Kansas. They will do this because they will provide feed for all kinds of live stock every year if the planting and cultivation methods are right. The book tells why this is so.

The book is not one of statistics. Of course, it contains some figures, but they are woven into an interesting, readable and instructive story. The experience of hundreds of sorghum-growing farmers is condensed therein.

This book tells of every phase of grain sorghum farming. There is not a thing you can think of that has not been touched upon. The planting, harvesting, feeding, varieties, and the sections adapted to each sorghum, are a few of the important topics.

This is a new book about a kind of farming not yet fully understood. Sorghum farming is a promising hope for the Great Southwest. It is a sure money-making book.

Twenty-five dollars in cash is offered for an acceptable name for this book. See conditions of contest on page 3, this issue.

Mr. Borman's book is printed on a fine quality of book paper, is full of pictures and is neatly and substantially cloth bound, and the price will be \$1.25 per copy. To KANSAS FARMER subscribers who renew their subscriptions in December, a copy of this book will be sent with a year's subscription to KANSAS FARMER, for only \$1.50, postpaid. The first orders to be received will be filled first, about January 25. To order fill out the coupon, sending your remittance by personal check, draft or money order. Make all remittances and address all letters to KANSAS FARMER, 625 Jackson St., Topeka, Kansas.

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Gentlemen: I enclose herewith \$1.50 for which please send KANSAS FARMER one year and a copy of Mr. Borman's Book on Sorghum, postpaid.

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