

KANSAS FARMER

For the improvement



of the Farm and Home

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Established 1863. \$1 a Year

MORE farmers are engaged in the growing and marketing of hogs than in the production of any other class of meat producing animals.

In the hog we have an animal, the female of which produces young in whole litters and two litters a year. The price of a cow will buy two or three sows; the pigs from the sows will produce a pound of increase for four or five pounds of dry matter and be ready for market in nine months; while fattening cattle will require from ten to twelve pounds for the same amount of increase.

The hog is ever the poor man's friend and stands ready to convert the raw materials of his farm into a finished product of far greater value.

From every county comes reports of the scarcity of brood sows. The breeder, dealing out the high priced feeds to his pigs, is taking courage as he sees the product of his skill and care develop and realizes how necessary they are on these many farms.

Good seed is the first essential to success in the hog business. This must come from the breeders of pure bred hogs who had the nerve and forethought to hang on to the cream of their breeding stock through the trying conditions of the past season. —G. C. W.



These are Hog Days on the Kansas Farms

MARKETING CHARGES

All Interested in Items of Expense in Marketing Agricultural Products—Commissions Have Increased Recently

THAT the items of cost receive too little attention from agricultural interests is being recognized more and more daily. Markets for agricultural products feel this new recognition by an increasing number of comments as to the profits or losses in the commodities producers sell on them. The increased attention to cost is also apparent in the watchfulness of producers over the rates of commission prevailing on markets for live stock, grain, hay and other products. Interest along this line has doubtless been stimulated by the recent advanced commission charges on hay at Kansas City from 50 cents to 75 cents per ton.

Commission rates assessed against farmers and shippers who sell various farm products on the Kansas City market have advanced in recent years in common with advances in other commercial fields. The charges for selling live stock and other products at Kansas City, however, do not cover the expense of the selling agents in disposing of the commodities alone, but also include advertising expenses, the expenses entailed in mailing circulars, sending traveling representatives on the road, the capital investment, which varies considerably, and the labor hire.

A general advance of about 25 per cent was made in the cost of selling live stock on commission at the Kansas City market and other live stock exchanges about two years ago. The farmer, feeder or shipper who sends a car of cattle to the Kansas City market must pay 60 cents per head commission to the commission dealer to whom he consigns the animals for sale. The minimum charge per car of cattle is \$12 and the maximum is \$15. Thus, if a load contains less than 20 head, the shipper pays in excess of 60 cents per head commission. If the load contains more than 25 animals, the commission rate is less than 60 cents per head, as the maximum charge per car is \$15. This is one of the reasons why the newest 40-foot live stock cars are in demand from shippers. The long cars, according to commission merchants, are one of the reasons for the last advance in the maximum charge for selling cattle from \$12 to \$15 per car. In addition to the commission charge, the shipper must pay to the Kansas City Stock Yards Company a yardage charge of 25 cents per head. This charge covers the yardage cost, no matter how long the animals are held at the stock yards before being sold. If the shipper desires to feed his animals hay before selling them, he must buy of the stock yards company, which places the feed in the pens at \$1 per 100 pounds. On calves the rate of commission is 30 cents per head and the yardage charge 10 cents per head.

On hogs the rate of commission at the Kansas City yards is 20 cents per head, with a minimum of \$8 and a maximum of \$10 per car on single deck loads. The maximum on double deck cars is \$15. The yardage charge is six cents per head. Corn for feeding is delivered to pens at \$1 per bushel.

The rate of commission for selling sheep is 15 cents per head, with a maximum charge of \$10 per car and a minimum of \$8 for single decks. The maximum charge for double deck cars is \$14 per car. The yardage charges on sheep are five cents per head. Sheep are rarely fed on the market, as those sent from long distances are usually unloaded and fed at feeding stations surrounding the Kansas City yards.

On the Chicago market shippers are forced to pay a terminal charge of \$2 per car. The terminal charges are absorbed by railroads at other markets. Cattlemen's organizations have fought the Chicago terminal charge for years unsuccessfully. However, it has doubtless lost the Chicago market much business. The decline of the Chicago market as a handler of Texas quarantine cattle dates from the assessment of the extra terminal charge of \$2 per car on live stock.

AVERAGE COST ON HORSES, \$4.

The average cost of selling horses at auction on the Kansas City market is about \$4 per head. This cost includes \$2 commission per animal, a yardage charge of 25 cents, feed at 60 cents per day, insurance up to \$250 per head, which costs 10 cents, 25 cents for halters and 25 cents for "braiding and rolling." Trimming, which costs 25 cents, and shoeing, which costs 25 to 50 cents per shoe, are optional with the seller.

Mules are sold in lots or singly as cattle. The average cost of selling mules

is about \$2.25 per head. This includes \$1 for commissions, feed at 50 cents per day, 25 cents for yardage, and 10 cents insurance. Roaching, the charge for which is 15 cents, is optional. Shoeing is also optional.

WHEAT COMMISSION 1 CENT PER BUSHEL.
The cost of marketing grain on the Kansas City Board of Trade is practically the same as the charges at other primary markets. The commission rate on wheat is one cent per bushel. No dealer is permitted to make a higher charge than that specified in the rules and regulations. Neither is a lower rate allowed. On consignments of rye, barley, kafir, as well as wheat, the commission is one cent per bushel; shelled corn and oats, one-half cent per bushel; snapped corn and ear corn, one cent per bushel; bran, shorts and other mill feeds, \$5 per car; flax seed, one cent of the gross proceeds, and seeds of all descriptions, excepting flax seed, 1 1/2 per cent of the gross proceeds. The commission charges on alfalfa meal is 50 cents per ton.

Besides the regular commission charge there are other minor expenses that must be paid by the consignor of grain shipping to Kansas City. The private inspection department of the Kansas City Board of Trade charges 50 cents per car for inspection and grading, while the Missouri inspection bureau makes a similar charge on all grain it grades. The Kansas state inspection department charges one cent per 1,000 pounds for inspecting grain, which averages about 65 cents per car on wheat, 55 cents per car on corn, and 35 to 40 cents per car on oats. Every car of grain shipped to Kansas City is weighed and a charge of 50 cents is made for this. Another charge, which is variable, is interest on the draft. Generally, when a shipper sends a car of wheat to Kansas City on a commission basis, he makes a sight draft on the receiver, who must pay this draft before the car is released to him. Probably several days to a week elapse before the car of grain is sold and paid for. An interest charge of not less than 6 per cent on the amount of the draft between the time it is paid and the sale of the car is charged to the shipper. These are the only extra expenses, aside from the regular commission charge.

In the Kansas City speculative market, commission for buying and selling for future delivery is one-eighth cent per bushel on all grain.

Under a rule recently promulgated by the Kansas City grain exchange, farmers or others who sell grain to members of that organization through bids on track at their stations, must meet a charge of one-half cent per bushel to cover interest and expenses of the buyer. One of the objects of this new rule is to give the big elevator operators and commission dealers more equal chances.

Produce dealers over the entire country make a uniform charge of 10 per cent of the gross proceeds on all consignments. No extra costs enter into produce shipments.

The recent advance in commission rates on hay from 50 to 75 cents per ton brings the commission charge for selling this commodity up to \$7.50 for every average car of ten tons. In addition to the commission rate of 75 cents per ton, the members of the Kansas City Hay Dealers' Association charge 50 cents per car for plugging samples, 50 cents per car for weighing if the hay is sold to a Kansas City consumer, and 15 cents per car for "watching" the hay. The "watching" charge is to cover the expenses of employing a watchman to protect shipments unloaded for the inspection of buyers.

A membership on the Kansas City Board of Trade, or Grain Exchange, is worth \$2,200 now. The grain man who purchases a membership must pay the Board of Trade a transfer fee of \$500, which brings the cost up to \$2,700. The Board of Trade has about 200 members. Some of them do business in other markets, but find it profitable to own a membership. Members sell or buy grain for fellow members at one-half regular commission rates. A membership on the Kansas City Live Stock Exchange, which has about 200 members, is worth about \$1,500. The transfer fee for Live Stock Exchange memberships is \$100. A membership in the Kansas City Hay Dealers' Association is worth about \$500 now. The hay association has 55 members. No price has been set on membership in the Kansas City Produce Exchange. About three years ago the old produce exchange was dissolved for violating the anti-trust laws of Missouri.



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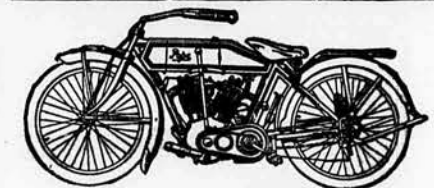
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STOCK BREEDERS GET HEARING.

The National Society of Record Associations held a meeting in Chicago during the winter, and as one of the results of this meeting, took up with the Interstate Commerce Commission certain grievances which the live stock shippers of the country have against the railroads. Briefly stated and freed from the legal wording necessary in carrying such a case before the Interstate Commerce Commission, this formal complaint of the live stock breeders of the United States is against the rates, weights and requirements of all the railroads in the United States on the shipments of live stock in less than carload lots. The stockmen consider the values given in the limited liability live stock contract as entirely too low. If a shipper chooses to bill an animal at actual value, say \$250, he is required to pay 10 per cent increase in the rate for each 100 per cent increase in value. This extra charge is really insurance paid to the railroad on the extra value on which it assumes risk. Experience has shown that the risk of loss in the shipment of breeding animals is very slight indeed and does not exceed one shipment in 500. The railroads, in collecting such insurance charge, actually collect about \$3,000 to protect themselves against a possible loss of \$250.

The importance of this lies in the fact that the Supreme Court of the United States has decided, in several cases involving live stock, that the shippers can recover only the amount named in the contract, whether loss be due to negligence or not. Breeders must, therefore, to protect themselves give the actual value of the animal shipped, and are entitled to a reasonable alternative rate.

It has also been contended by live stock shippers east of Chicago, that the arbitrary minimum imposed by the railroads, work injustice. The requirement on the eastern roads that breeders shipping breeding stock in less than car lots furnish an attendant still further hampers the shipper.

All these various matters were called to the attention of the Commission in February by a committee of the National Society of Record Associations. This committee has been informed by the Commission that nothing can be done except after a full hearing upon a formal complaint. This complaint has been duly filed and public hearings on the case will be held in Chicago as soon as the date can be assigned. The Secretary-Treasurer of the National Society of Record Associations is Wayne Dinsmore, Union Stock Yards, Chicago. Breeders of pure-bred stock over the country having any specific records relative to cost incurred in the shipping of breeding animals, should furnish such information to Mr. Dinsmore to be used in connection with public hearings on this case.

HOW PLANTS FEED.

The wonderful processes involved in plant growth take place with such regularity that they are too often given little thought by those of us who see these operations going on continually around us. At this season of the year when nature is springing into life and every leaf and blossom is actively working out these marvelous processes, there should be renewed interest taken in the chemistry of plant growth.

The gentle warming of a green plant in a vacuum produces a large loss in weight; this loss consists chiefly of water which is being evaporated from the tissues of the plant. If the process continues, other volatile substances such as wood alcohol and acetic acid are given off. This may continue until nothing remains but the black, porous substance commonly known as charcoal. By strongly heating in air this charcoal will burn and nothing will remain but the white ash or mineral material. This mineral material may be further analyzed and separated into its component parts by the processes of chemistry. All this material which the chemist can

separate out was brought together by the plant during its period of growth.

An enormous amount of water is required in plant growth. Not only does the plant itself contain a very large proportion of water, but large quantities must be passed through its tissues and evaporated from the various parts. Experiments have shown that for every pound of dry substance in a crop, from 225 to 912 pounds of water must pass through the tissues of the plant. The production of a 20-bushel crop of wheat per acre requires the actual use of six acre-inches of water. The mineral elements found in plants, including potassium, sodium, calcium, magnesium, iron, manganese, sulphur, phosphorus, nitrogen, chlorine and silicon, in their various combinations are carried in very dilute solutions of water to the plant tissues. Water thus becomes an important agent in transporting plant food from the soil to the plant.

Carbohydrate material constitutes the larger portion of all plant tissue and the manner in which this carbon, hydrogen and oxygen, of which the carbohydrates consist, are united to form this material in plant growth, is a most interesting process. The carbon, which is the element of charcoal, comes directly from the air. Carbonic acid gas or carbon dioxide, a compound of carbon and oxygen, is always present in the air. While this carbonic acid gas constitutes only a very small portion of the air, the total amount over each acre has been calculated to be 28 tons. This carbonic acid gas of the air is constantly being added to by the breathing of animals and the decay of organic material.

This gas from whence the carbon of the plant is secured, is a compound requiring the use of considerable force or energy to separate it into its two elements, carbon and oxygen. The action of the sunlight is the energy which is used by the plant in decomposing the carbonic acid gas. It is accomplished through some marvelous power which the green matter of the leaves is able to develop through the agency of sunlight. It is not very definitely known just what products are first formed in the leaf from the material thus secured, but it soon changes to starch and cellulose, compounds consisting of carbon, hydrogen and oxygen. These chemical processes which take place in the plant cells in the forming of the various compounds of the plant tissues are most mysterious to the chemist, and in spite of the many investigations which have been made, no one understands exactly how these processes take place.

The proper degree of warmth is necessary for these various processes to take place, and the free oxygen of the air is absolutely essential. Oxygen is continually being used in various parts of the plant. Germination of seeds cannot take place unless free oxygen is avail-

able. For this reason a well aerated soil is essential to the proper germination of all seeds.

Most plants depend for their nitrogen upon soluble compounds of this element secured through the roots. It is fortunate, however, that one great group of plants are able through the microscopic organisms or bacteria growing on their roots, to use the free nitrogen which constitutes four-fifths of the air. This power which this group of plants possesses enables them to be independent of soil as regards their necessary nitrogen and for that reason the leguminous plants occupy a most important place in our agriculture. Large quantities of nitrogen can be taken directly from the air by these plants and stored in their tissues and eventually add to the reserve of nitrogen in the soil, to later become available to plants depending upon the soil for this element.

The uses of the mineral matter or ash in the plant are but imperfectly understood.

This mineral matter is absolutely essential and the various plants seem to have the power to select the various minerals necessary from the soil in which they grow.

WHEAT AND FLOUR TESTS.

Last summer a short course was given at the Kansas Agricultural College by the department of milling industry, in which instruction in wheat and flour testing was offered. Quite a number of millers, bakers and flour salesmen of the state were in attendance at this school. It has just been announced that a similar course will be offered this year, May 18 to May 30, inclusive. The experimental mill is now installed and in operation and the laboratories are in good shape to make this instruction well worth while.

The mill representatives are asked to bring with them a 10-pound sample of their flour for laboratory tests; also quart samples of the blend of wheat from which their flour is made. As much actual laboratory practice will be given to those in attendance as the time will permit.

The Interstate Agricultural and Industrial Congress which was held in St. Joseph, Missouri last year, was so successful in point of attendance that a second annual congress is being planned for the dates assigned being December 9, 10, 11 and 12. Those in charge of this congress are planning to develop the educational features to the fullest extent possible. Lectures from the best authorities will be given on agriculture, soil management, dairying, horticulture, live stock and poultry. It is expected that displays will be made by the agricultural colleges of the neighboring states. R. M. Bacher, 114 South Fifth St., St. Joseph, Mo., is chairman of the executive committee.

NEW WORLD RECORD COW.

Banostine Belle DeKol has been able to hold the world's record for butter fat production for less than two years. A Guernsey champion now comes to the front.

The American Guernsey Cattle Club reports as follows on this new champion:

"The Guernsey cow, May Rilma, owned at the famous Chesterbrook Farm, the home of the late A. J. Cassatt, now owned by his son, Capt. E. B. Cassatt, Pennsylvania, has given in three hundred and sixty-five days, 19,639.50 pounds of milk which contains 1,059.59 pounds of butter fat. This cow was bred and raised at the farm and her year's work has been carefully supervised under the regulations for the Advanced Register of Guernsey cattle conducted by the American Guernsey Cattle Club. While officially supervised by the representatives of the Pennsylvania Agricultural Experiment Station, her work has also been checked by six similar institutions in other states and by a representative of the dairy division of the United States Department of Agriculture.

"This record surpasses that of any cow of all the dairy breeds in the world. May Rilma is producing more butter fat in her thirteenth month than in her first, thus widening the distance beyond her nearest competitor and more firmly establishing herself as Queen of the Dairy World."

This remarkable cow, during the time she has been making this record, has been kept in a box stall and milked three times daily. She has consumed a daily grain ration of about 18 pounds; the proportions being 9 pounds of bran, 3.6 pounds of gluten meal, 1.8 pounds cottonseed meal, 1.8 pounds linseed oil meal and 1.8 pounds hominy fed with a very small portion of molasses and dried beet pulp. The roughage ration consisted of silage, alfalfa and clover hay. She also consumed during a part of the winter, 16 pounds daily of carrots. When in 1911 Pontiac Clothilde DeKol 2d produced in one year 1017.3 pounds of butter fat and the next year Banostine Belle DeKol produced 1058.34 pounds of butter fat in 365 days, it seemed hardly possible that these records could ever be excelled. This wonderful Guernsey cow, however, has raised the record a notch and judging from the fact that she is producing more butter fat in her 13th month than in her first month, she has done it easily.

COSTS OF MARKETING.

It is only recently that the farmers have been giving much attention to matters pertaining to the marketing of their products. This really constitutes at the present time the most important phase of the farming business. In the interests of furnishing all the information possible connected with the cost of marketing products, KANSAS FARMER is printing in this issue a brief summary of the actual cost of marketing the leading farm products on the Kansas City markets. Before being in a position to find fault or to criticize the cost of handling products after they leave the farm, a thorough understanding of what these various items are, is essential. Those interested in this subject should read carefully this article and preserve it for future reference. It contains much information which is not in possession of the public generally.

These various cost items have increased quite materially during the past two years. With these increases in the various commission rates and other charges assessed against the farmers and shippers, the thought at once arises in the mind of the producer as to whether these increased rates are justifiable in return for the services rendered. The recent advance in the commission rates on hay from 50 cents to 75 cents a ton, has aroused considerable opposition on the part of those handling hay. A number of organizations have filed formal protests against this raising of commission rates on hay.

Smut Treatment Cannot be Combined With Use of Carbolic Acid to Prevent Ants

S EED smut in kafir can be absolutely prevented by treating the seed with a formaldehyde solution, 50 gallons of water to one pint of formaldehyde. A gallon of this solution will treat a bushel of grain. Spread the seed in a thin layer on a clean floor and sprinkle until thoroughly and evenly wet.

The grain should be shoveled over to make sure that every seed has been wet with the solution. The pile should then be covered with canvas or some blankets to keep in the fumes of the formaldehyde, and left for from six to twelve hours. It can be dried by spreading out in a thin layer and stirring frequently. The sacks, drill and every article coming in contact with the seed must be disinfected with the same solution. The smut spores are destroyed by this solution.

We have been asked whether the crude carbolic acid treatment to prevent injury from the kafir ant, could not be combined with the smut treatment. The crude carbolic acts as a repellent and must be applied full strength to be effective. If combined with the smut treatment it would be so dilute as to be of no avail. The smut treatment must be given first, and then, just before planting, the seed can be dipped in the crude carbolic acid.

FEED THE CROPS ON THE FARM

Live Stock of Kansas Could be Doubled With Profit—Meat Only Product Steadily Rising in Value for Fifty Years



HEIFERS FED AT KANSAS EXPERIMENT STATION THE PAST WINTER CAME FROM THIS RANCH.—THESE YOUNG CATTLE SHOW A SPLENDID TYPE OF BEEF ANIMALS.—THE AVERAGE FARMER HAS FALLEN FAR BEHIND THE RANCHMAN IN LIVE STOCK IMPROVEMENT.

IN addressing the visitors in attendance at the recent cattlemen's meeting in Manhattan, Dean Jardine advocated live stock on every farm in Kansas.

"The Kansas Agricultural College and Experiment Station," he said, "is doing everything it can to encourage the production of more live stock in Kansas. We believe the only possible way to build up the agriculture of this state to a point where it will be more profitable than it is today, to a point where it will yield larger interest on the capital invested, is by introducing a system of farming that includes the handling of live stock on every farm.

"If the live stock population of Kansas could be doubled within the next year, it would be the greatest blessing that could come to the state.

"The history of the world's agriculture points clearly to the fact that live stock is fundamental to the development of a permanently profitable agriculture. We cannot point to a single nation, state, county, or farm whose system of farming did not include live stock and which existed for any length of time with continued prosperity. An agricultural system based upon grain farming is, according to the records of the past, doomed to failure.

"At the present time Kansas plants some sixteen million acres of its most fertile lands to grain crops. Over a large proportion of this area, little if any live stock is carried. A large proportion of the grain products is shipped out of the state, leaving the soil impoverished. The actual fertilizer value of this exodus of plant food amounts to more than \$25,000,000 annually. This system of farming has been going on since the settlement of Kansas, and the effect of the loss of the fertility shipped

out of Kansas is becoming evident in the older farming districts of the state. If the farmers continue to ship the products of their soil out of the state, and thus deplete the fertility of their land, they will soon be confronted with the proposition of spending large sums of money for fertilizers, to enable them to grow more grain crops.

"We need only examine the yields of the state for the past ten years to see that they are remaining stationary, if not decreasing, each year. While this condition has been growing more apparent, the land values have gone up 136 per cent in these same ten years.

"While the state is still young and soils are still fertile, we should adopt a system of farming that will insure the permanent upkeep of the soil fertility. The only system that will do this is one which includes more live stock on every Kansas farm, one which enables every farmer to feed out most of the products he derives from the soil, and thus return in the form of manure the millions of dollars' worth of plant food which is now going out of the state.

"The advent of the silo and the introduction of such drouth-resistant forage crops as kafir and cane, which have proved to be superior to corn in yield and equal to corn in feeding value, insure an abundance of choice feed for every county in the state. Growing live stock is now a practical proposition for every Kansas farmer."

The up-to-date farmer cannot get away from the fact that, broadly speaking, he has practically two jobs on his hands the year around. The first one, and the one to which he has perhaps given the greater portion of his energy, is the growing and producing of farm crops. A farmer may easily attain to a high degree of success in this line and still not secure the measure of profit

from his farming operations as a whole that he should. The other job, and probably the bigger one of the two, is the marketing of what he has produced in such a manner as to secure the largest amount of net profit from his farm business as a whole.

It has been pointed out by Dean Jardine in the quotations given above that the method of marketing what is produced has a very close relation to the future productive capacity of the farm. Selling the products of the farm in the raw form cannot continue. Already fertility has begun to decline. To the men who have realized the necessity for making this change in the method of marketing crops, the various problems of live stock farming are probably less familiar than the growing of grain crops. It is a generally accepted fact that the breeding and feeding of live stock is a much higher type of farming than the growing of the various grain crops.

Many of our best farmers have seen the necessity of making this change in method, but from lack of proper knowledge of the handling of live stock they hesitate to take up this branch of farming; others fear that the market for live stock products may be so glutted in the years to come that no profit will come from the conversion of the various farm crops into live stock and live stock products. To such, the observations made by Prof. W. A. Cochel, one of the leading experts of the country along the line of animal production, will be of great interest. In writing for the Kansas Industrialist recently, Prof. Cochel said:

"The present deficiency in the supply of meat-making animals is not confined to Kansas and adjoining states, nor to the United States, but is world-wide. Meat is one of the few products of the farm which have shown a gradual but

continuous rise in value during each five-year period for the past fifty years.

"The importation of foreign meat may have a temporary effect on values, but every carcass sent to the United States simply increases the shortage in foreign countries. During the first three months of the current year there were 131,914 fewer cattle received at the six leading live stock markets than during the same period last year. All the foreign beef imported into the country during that period replaces less than half the deficiency in our own markets. With our increase in population it is doubtful if native and foreign meat will ever hereafter be available in such quantities as it has been in the past.

"With everything indicating a continued deficiency in the meat supply, farmers and land-owners are justified in increasing their herds up to the full carrying capacity of their farms.

"Kansas is adapted by nature to the production of live stock. Winters are usually dry, with comparatively few days of extremely low temperatures. The valleys produce heavy yields of alfalfa, rich in protein, for maximum growth, and of corn, rich in starch and oil, for highest finish. The western prairies are especially adapted to the production of kafir and other drouth-resistant plants with which silos can be filled and which can be held over for periods of low yields. By combining silage with small quantities of concentrates, an ideal winter ration is secured for breeding herds and for stockers and feeders. The live stock farmers in every part of the state are prosperous and happy. Those who are attempting to farm without live stock are restless and discontented. For these reasons the college and experiment station is encouraging greater live stock production in every county in the state."

WHERE dairymen experience such high prices of grain feeds as prevailed during the past winter they must cast about for cheaper substitutes to replace these grains and, if needs be, even experiment with new feeds.

It was when wheat bran climbed to \$1.50 to \$1.60 per hundred pounds that I decided to experiment with alfalfa meal as a substitute. It is generally conceded that good alfalfa approaches very closely wheat bran in nutrient content and for this reason from an economical standpoint should not be fed together, especially when alfalfa is generally so much cheaper pound for pound.

I was feeding a herd of over 100 cows on a grain ration consisting of three parts of corn chop and one part wheat bran by weight. The bran was used more to lighten up the corn chop, which was ground rather fine, than for any other purpose.

I replaced the bran by an equal amount of alfalfa meal by weight and fed this ration to the cows in exactly the same amounts per head as when the bran was used. The meal was really of rather in-

Substitutes for Corn and Bran

By H. E. DVORACHEK, Colorado

ferior quality, and was bought at eighty-five cents per hundred pounds. It lightened up the chop far better than did the same weight of bran. When fed to the herd for one month, no appreciable decrease or increase in milk flow, or variation in fat content of the milk was noticeable. At the end of a month's feeding of the meal, I returned to bran for another month with scarcely any change in quantity or quality of milk produced. In individual cases there was a slight rise in production with the return to bran, but not sufficient to warrant feeding it at the relative prices. The rise seemed more prevalent among cows well advanced in their period of lactation.

I next tried feeding larger quantities of the meal by mixing three parts of chop with two parts of meal. The meal is very bulky for its weight and there-

fore made the grain ration bulky. The cows were fed alfalfa hay ad lib in racks out of doors and so did not relish their grain ration in such a bulky form. They did not refuse it, but it was noticeable that they did not clean it up as eagerly as the less bulky ration fed formerly.

Although we did not weigh the daily allowance of hay, it seemed that the cows ate less hay. This would seem entirely possible, considering that some of the cows were getting as high as fifteen pounds of this grain mixture daily. I did not use this mixture more than ten or twelve days as I could notice a falling off in milk flow with the herd in general. I accordingly reduced the proportion of meal to one instead of two parts to the three of chop. I believe the decrease in flow was largely due to an insufficient amount of chop in the

ration, and apparently too much bulkiness of the grain, so that it was not entirely relished.

I was satisfied with the results obtained with the one part of meal, and so continued to feed it instead of bran. I could buy a good quality of meal at \$1 per hundred pounds. Corn, chop, however, soared to \$1.75, and so it was high time to search for some cheaper substitute for this great dairy feed. Barley was equally high priced and could scarcely be bought because it was not on the market. I turned to dried beet pulp which could be purchased at \$1.30 per hundred. I replaced one part of corn with the pulp, making the mixture two parts chop, one part pulp and one part meal. The pulp was thoroughly mixed with the chop and meal and the mixture fed dry. The results were gratifying. The cows relished the ration, and with individual members of the herd a slight rise in milk flow could be noticed after feeding it for some time.

This mixture was fed for nearly a month, and I intended at the close of the month to add another part of the

[Continued on Page Nine.]

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

AN inquiry comes as to the proper depth to plant corn. No hard and fast rule can be laid down as to the proper depth of planting. The condition of the seed bed will have considerable to do with the depth that it is desirable to put the seed into the ground. It is important that the seed bed be in such condition that a uniform depth of planting can be maintained over the whole field.

When the conditions are favorable as to moisture and the seed bed is in first class shape it is seldom desirable to cover seed deeper than two inches. In the case of late planted corn where the surface soil may have dried out, it may at times be necessary to plant corn three or four inches deep in order to secure quick and uniform germination.

The Small Silo.

We have just had an inquiry from one of our readers asking how small a silo it is practical to build. Practically all the discussions we have had on the subject of silage, the building of silos, etc., have been prepared from the standpoint of the farmers having a considerable amount of stock to feed. During the past four or five years the necessity for the silo has become more and more apparent and practically every mixed farm can make use of a good silo.

In all this discussion, however, the small farmer, the man with only a few acres of land near town, who may have a cow or two, some pigs and a bunch of hens, has been left out of consideration. The silo is as much a necessity, if not more so, to a farmer feeding stock under such conditions as to the large farmer. The small silo cannot be so economically constructed in proportion to its capacity as the larger silos. It is also much more difficult to get the silage packed solidly in the silo of small size. The capacity of a silo increases in proportion to the square of the diameter; whereas the area of the surface of the walls increases directly proportional to the increase in the diameter. This means that the walls of the small silo have a larger surface area in proportion to its capacity than a large silo. For this reason the friction of the material on its walls will be greater and much more tramping will be required to thoroughly exclude the air.

In the western part of the state where pit silos are very generally used, the silos of small size have been found to be thoroughly practical. Silos as small as four feet in diameter and 12 to 16 feet deep have been successfully used. Of course in this type of silo the cost of construction has been very small. If the silo is built above ground the tendency would be for the cost of the silo per ton capacity to increase considerably as the size was decreased.

One of the silo companies has taken up the proposition of building and selling what is known as a "chicken silo." The silos are being built in sizes holding from 3 to 25 tons; the diameter ranging from 5 to 8 feet and the height from 10 to 22. In order to use a small silo of this kind to the best advantage a small cutter should be owned, likewise the power necessary to operate it. With this equipment the small farmer is in a position to store all the green material produced on the farm. Sweet corn fodder from which the ears have been removed and sold as roasting ears can be run into a silo of this kind, and various materials which might ordinarily be wasted entirely.

These small sized silos should, if possible, be constructed inside of a barn or other building, as the silage will freeze more in winter time than in a silo of large size, on account of there being so much more surface exposed. With a small silo the wage earners and others living on the outskirts of towns and villages can add greatly to their income by increasing in live stock production small tracts of land.

Poisoning Pocket Gophers.

One of our readers from Marshall County inquires as to best methods of destroying gophers in alfalfa fields.

Poisoning is the most thorough and easily applied method of ridding a badly infested farm of the pest. It is also the best method if the territory to be freed from gophers is of considerable extent. In either of the above cases one man can accomplish as much with poisoned bait as a half dozen could in the same time with traps. The danger of

killing stock or useful birds and animals, attending the use of poison for prairie-dogs, English sparrows, and the like, is entirely eliminated by the plan of introducing the bait through small openings into the gophers' burrows.

Since the pocket gopher lives naturally on the roots and tubers of native plants, or on succulent vegetation drawn down into the burrow from the surface, it follows that a close substitute for these articles will make the best bait for poisoning. Knowledge gained by personal experiments and by careful inquiry among farmers and fruit growers goes to show that pieces of potato, apple or sweet potato, poisoned by inserting a few crystals of strychnine into slits made with the point of a knife, answer the purpose very well.

A specially prepared poisoned syrup is sent out by the Agricultural College at Manhattan. The syrup is sold by the college at actual cost of manufacture, which at present is \$1.10 per quart can.

The method of using this poison commends itself as a time saver. Pour boiling water over as much shelled corn as you will need—the quart of syrup will poison a half bushel—and let it stand several hours to swell and soften. Drain off the water and pour over the grain enough of the syrup to render it sticky when thoroughly stirred together.

gophers, if any, may become wary, and in that case they should be trapped.

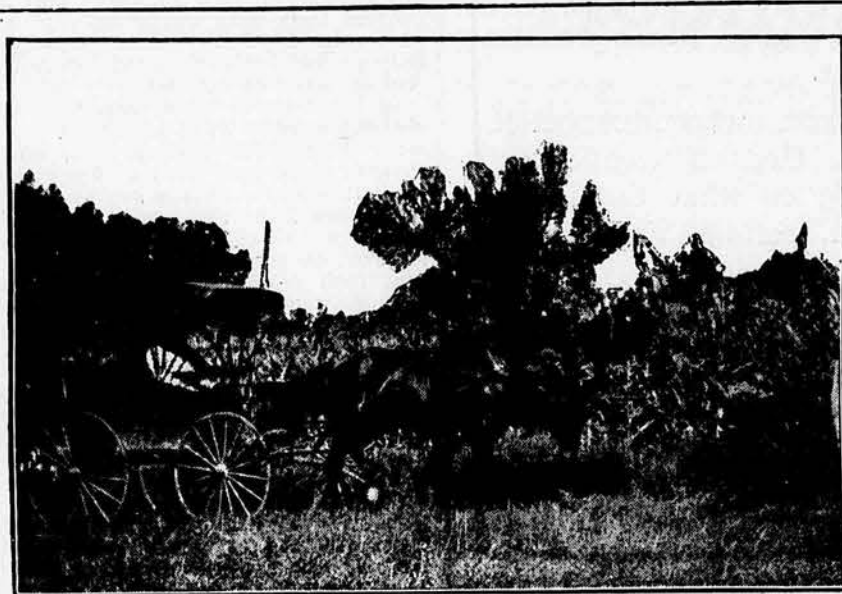
The best time of the year to poison gophers is when they are most active in extending their burrows. This is usually in the late fall, for they are then laying in stores of provisions for the winter. Spring is a period of renewed activity, and poison may be successfully used at this time also. In fact, it will pay to make war on pocket gophers at any time when they are seen to be active.

Percheron Pedigree Questions.

The following questions come to us from L. S. M., a KANSAS FARMER reader in Lane County: "Is a Percheron certificate signed by S. D. Thompson, O. K.? When was he secretary and how long did he serve? How long and when did Stubblefield serve as secretary and when did Mr. Dinsmore's term commence?"

These inquiries have been answered as follows by Dr. C. W. McCampbell, secretary of the Live Stock Registry Board:

Percheron registry certificates signed by S. D. Thompson, bearing numbers above 35912, issued after May 9, 1904, are of no value, as they were issued by Mr. Thompson after he surrendered all books, records and authority to what is now known as the Percheron Society of America. After disposing of all his



WHAT WILL THE HARVEST BE?—AFTER THE FARMER HAS DONE HIS PART THE WITHHOLDING OF RAIN AND SUNSHINE ALONE CAN PREVENT BOUNTIFUL RETURNS.

Sweeten the mass with a little good table syrup and add a little corn meal to take up the excess moisture, but not enough to leave any dry meal. Cork up the syrup can tightly and place it out of reach of children and domestic animals. It will keep indefinitely and is ready for use at any time.

The soaked corn, poisoned as above, is introduced into the burrows of the gophers, a few grains at a place, by means of an old spoon. Openings into the burrows must first be made with a sharp stick—a sharpened broom handle will serve the purpose—or a spade handle shod with an iron point and having an iron foot-bar some distance from the end to aid in making the thrust. Experience will soon enable one to tell when he has struck the burrow, which can be located approximately by getting on a line between two mounds of earth. After dropping in the poisoned grain the hole may be left open, or if closed care should be taken not to allow dirt to fall in and cover up the bait. If the hole is left open the gopher is likely to be attracted by the light and find the bait the sooner.

The same method of introducing the poison into the burrows is employed also when raisins or prunes or pieces of apple and potato are used. The presence of freshly thrown up mounds indicates that the animal is extending his runways in that quarter, and it is best to confine one's poisoning operations to such places. If the field can be dragged over with a harrow or plank a few days after the poison has been put out, new mounds can be readily detected and fresh poison distributed. If the work was thoroughly done in the first place it usually takes but a few minutes to go over the field a second time. The few remaining

rights, interests, etc., in the old society, he continued to issue so-called registry certificates for stallions, many of which were only grades. Mr. Thompson was secretary of the old association from the early 80's to May 9, 1904. Mr. Stubblefield followed Mr. Thompson, and held this position until 1910. Mr. Dinsmore has been secretary of the Percheron Society of America since 1910.

Cows Sick on Wheat Pasture.

J. W., one of our Rooks County readers, writes us concerning the abundance of wheat pasture which was available through the past winter and this spring, but states that a good many people are having sick cattle, mostly milk cows, among those running on green wheat. The symptoms are not alike in all cases, and some have been supposed to have milk fever; others have shown no symptoms whatever of milk fever.

This inquiry was referred to the veterinary department of the Agricultural College and Dr. R. R. Dykstra writes as follows concerning the matter: "I rather doubt whether the wheat pasture had anything to do with the death of these animals. I have had no opportunity to examine these cases personally, and I know of no one who has made a careful study of this trouble. I am rather inclined to believe, however, that it is the same trouble as what was formerly reported to be cornstalk disease, and which was later found to be hemorrhagic septicemia. Hemorrhagic septicemia is due to a germ which gains entrance to the bodies of the animals, and causes them to die very suddenly."

"Of course this is purely guess work, and before any definite conclusion can be arrived at it would be necessary to conduct an exhaustive examination.

There is no known treatment for hemorrhagic septicemia, though it may be prevented by removing animals to new, high, dry pastures.

Adjusting Corn Planter.

A great many farmers are undoubtedly still in the midst of their corn planting. We have been wondering whether they have been giving careful attention to the matter of so carefully grading the seed and adjusting the planter as to put the seed into the ground accurately. There has probably been much more testing of seed for germination this year than in former years, but unless proper methods have been followed in grading the seed and adjusting the planter, the right kind of a stand still may not be secured.

No corn planter can be made to drop seed irregular in size and shape with regularity. It is therefore important to remove the butt and tip kernels from the ears in preparing it for planting. Field tests have also shown that the small tip kernels are less productive than the fully developed kernels in the same ears. The thick, irregularly-shaped butt kernels produce well, but their size and shape are such as to prevent their being dropped uniformly by the planter. If short on good seed corn, these irregular-shaped kernels might be saved and planted separately, using a different plate in the planter. The corn graders on the market remove the tip and butt kernels fairly well and sometimes must be depended upon instead of following the more laborious method of removing the tips and butts by hand.

The best corn planter made will not plant the corn uniformly with the kernels partly placed, the right distance apart, unless the proper plates are in the planter for the seed being used. Carefully testing the planter with the seed to be planted is time well spent. The planter can be blocked up on a clean floor and operated by hand, testing with different sizes of plates until the proper results are secured. A poorly adjusted corn planter may easily offset all the advantages which have been secured by well selected and carefully tested seed.

Agricultural Agent Legislation.

In some of our states the agricultural agent idea as a part of the general educational scheme seems to be gaining some recognition through legislation. In Indiana twenty residents of a county may file a petition for an agent, accompanying the petition with a deposit of \$500 to be used in defraying his expenses. When this is done the county council is required to appropriate \$1,500 annually to be used in helping pay the salary of the agricultural agent, this appointment subject to the approval of the county board and also of the state board of education. The state then pays an amount sufficient to pay half of the salary of the agent, this amount not to exceed \$1,000 a year for each county.

In New York State \$600 per annum of state funds is available for farm bureau work in any county of the state. Indiana has now between 25 and 30 agents at work, and New York has 18. In Nebraska any county is authorized by the legislature to appropriate funds to pay the salary and expenses of an agent. This action is taken through the means of a petition of the farm land owners in any county in the state desiring such assistance.

In Minnesota the legislature has appropriated \$25,000 for the fiscal year ending July 31, 1914, and \$35,000 for the fiscal year ending July 31, 1915. Not to exceed \$1,000 can be used for any county in the state. The counties are also authorized to appropriate county funds to the extent of \$1,000 per year. Other appropriations must be raised by local subscriptions.

From the method of handling this matter in these states it would appear that nothing is being done without the sanction of the people who are most vitally interested and who have the bills to pay. Our legislators usually do not pass legislation which is opposed by their constituents.

The East, usually conservative, is rapidly adopting progressive methods for getting the boys and girls interested in the home farm. The latest evidence is the plan for forming boys' and girls' poultry clubs all over Connecticut, upon which The Connecticut Farmer makes enthusiastic comment.



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You can grow kafir, milo, feterita, or other fodder crops. These make ensilage equal to that of Indian corn.

Your stock, fed from the silo and finished on kafir, milo or feterita grain, bring as good prices on the markets as does the corn-fed steer.

You have cheap land, cheap feed, inexpensive shelter and the near-by range for feeders. Hogs do exceptionally well here. You can raise a pig on what each steer wastes. This is an extra profit, certain, dependable. There are no hog diseases to contend with.

Here is an opportunity to get into a going business. Don't overlook it. You need some money, but the contract we offer you reduces this necessity to a minimum.

I want you to write me to-day, asking for a copy of our map-folder of Southwest Kansas. It tells a story that will surprise you.

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Guernsey Cow Record.

A world's record in butter fat production is about to be made by the Guernsey cow, May Rilma 22761. On April 1 she had to her credit for a period of 358 days, 19,305.7 pounds of milk and 1,040.6 pounds of butter fat. This places her at the head of all records for Guernseys and the full year will probably place her record at the head for all breeds.

Exterminating Rats.

The U. S. Department of Agriculture recommends the following for the extermination of rats:

Barium Carbonate.—Take ordinary oatmeal with one-eighth of its bulk of the poison and mix with water into a stiff dough.

Strychnine.—A few crystals inserted on end of knife blade in small pieces of Vienna sausage, or toasted cheese.

The poison should be placed in the rat runs, a small quantity in a place. Care should be taken to keep the poison out of the way of children, poultry and domestic animals of all kinds.

Big Silage Yields from Kafir.

The table of comparative yields of corn, kafir, and cane, as printed in KANSAS FARMER of April 25, shows that in thirteen tests kafir outyielded corn by an average of 1.7 tons. In other words, kafir produced more than twice as many tons of fodder as corn did.

In ten tests in which cane was included, its fodder yield was found to be more than double that of corn, while kafir in these tests yielded 75 per cent more than corn. In the average of 17 tests upon kafir and cane alone, cane showed a lead of 39 per cent. While, however, in all but one test kafir and cane both proved superior in yield to corn, the experiments at Garden City all put kafir ahead of cane.

Storage and Use of Soil Moisture.

A recent bulletin from the Nebraska Experiment Station treats most fully of the results secured at the North Platte Substation in storing and conserving moisture in the soil. The bulletin may be summarized as follows:

Summer tillage has been the most effective method of storing water, but even by this method only from 10 to 33 per cent of the seasonal rainfall has been stored in the soil. A discussion of the amount of water retained by summer tillage during each of the past several years shows that the amount of water stored varies with the amount and distribution of the rainfall during the period covered by the summer tillage. It has been found that water stored in the soil before seeding is a safeguard against drouth, but it has not been found possible to store enough water in the soil before seeding to mature a crop without subsequent rains.

Disking small grain stubble has proved beneficial by preventing weed growth, whenever there has been sufficient moisture in the soil at harvest time to produce a growth of weeds, or where rains have come early enough to start weed growth.

Plowing has been better than disking, in that it more thoroughly kills all weed growth, and in the case of heavy rains plowed land will absorb more water than disked land because it is more thoroughly stirred.

Artificial mulches of straw or hay have proved more effective than soil mulches in absorbing and retaining water from rains.

Spring wheat, oats, barley, and corn feed to an average depth of four feet in this soil. Winter wheat feeds to a depth of six or seven feet. Alfalfa and grasses use water from greater depths.

Weeds are the greatest agency for the loss of water from the soil. Preventing weed growth has been more important from the standpoint of storing water in the soil than cultivating the soil to produce any kind of a mulch.

The storage of water is summed up in keeping a loose, rough surface to absorb the rains quickly, and in preventing growing vegetation from using the water.

Value of Birds to Farmer.

Few people realize the importance of our native birds to agriculture. This is

especially true as regards the boys. Prof. L. L. Dyche, fish and game warden of Kansas, has the following to say regarding the preservation and protection of our birds:

"Birds are the natural enemies of insects and the natural friends of agriculture and horticulture. Most young birds feed upon insects. It has been estimated that each young insect-eating bird eats an amount of insect food equal to its own weight each day from the time it is hatched until it is ready to fly. The insect-eating bird life is worth millions of dollars to the state each year, and should be protected if for no other reason than for its economic importance."

"Many cases have been reported to the department where boys with small guns kill birds. We have been loath to submit boys under 16 years of age to arrest, but have advised with them and their parents. Children should be taught, in every school house in the state, the value of bird life. By this means a true respect for bird life can be created. Boys who are now killing birds with slingshots and air guns might be made to see and appreciate the value of bird life to that extent that they would not only protect the birds and their nests in the fields, but would be willing to put up bird houses that would afford nesting places for the wild birds near their homes. A boy should be a bird's best friend."

"I know of no greater enemy of birds than the domestic cat. Quail, robins, thrushes and most of the common song and insect-eating birds find in the cat their most dangerous enemy."

"I am puzzled to know just what to recommend about cats. Most cats are of little or no value, and if nine-tenths of them were dead, bird life (which is of great value to the country) would be greatly increased. And there would surely be a great increase in the number of quail, robins and thrushes that would make their permanent living quarters near barnyards and in orchards and vineyards. It may be necessary to have a cat license."

Poison for Cockroaches.

Subscriber P. R. P., Butler County, asks for a method of exterminating cockroaches.

Mix one part of plaster of paris and three or four parts of flour. Place this dry mixture in a saucer or on a flat piece of wood or tin where the roaches are numerous. Near by place another flat plate containing pure water. Supply a few inclines of wood or cardboard from the floor to the edge of the plate or saucer to give easy access. Float one or two thin pieces of wood on the water so that they will touch the edge of the dish. The insects readily eat the plaster mixture, become thirsty and drink. The water makes the plaster set in the intestines and kills the roach. Such traps may be placed in pantries with good results.

There are various poisons which it is asserted are fairly effective as remedies against roaches. The only one of these that seems to give satisfactory results is a phosphorous paste, sold in the form of pills. It consists of sweetened flour paste containing 1 to 2 per cent of phosphorous, and is spread on bits of paper or cardboard and placed in the runways of the roaches. As phosphorous is poisonous to human beings and domestic animals, besides being highly inflammable, it should be used very carefully.

Considerable relief may be gained by a liberal use of pyrethrum powder. It is not a perfect remedy, however, and is at best but a temporary expedient, while it soils shelves and other objects over which it is dusted. It should be used fresh and liberally applied. Roaches are often paralyzed by it when not killed outright, and the morning after an application the infested premises should be gone over and all dead or partially paralyzed roaches swept up and burned.

The value of veterinary science is coming to more and more recognition of a concrete kind. It is just announced that John D. Rockefeller has given an endowment of a million dollars, the income from which is to be devoted to the study of animal diseases, while James J. Hill has pledged \$50,000 for the investigation of hog cholera.

BREAD FROM STONES

The above is the title of a most interesting circular which was prepared by Dr. Cyril G. Hopkins of Illinois University to tell the story of the rebuilding of an impoverished farm. In this circular Doctor Hopkins says:

"I purchased this farm in Southern Illinois in November, 1903, at a cost of less than \$20 an acre. It comprised about 300 acres of poor, gray prairie land (the commonest type of soil in about 20 counties in that part of the state) and a few acres of timber land.

"It was christened 'Poorland Farm' by others who knew of its impoverished condition, and I finally adopted this as the farm name.

"In 1913 a 40-acre field of this farm produced 1,320 bushels of wheat; and because of numerous requests for information regarding the treatment that has been given the land, this circular is issued.

"This particular forty acres was bought at \$15 an acre. It had been agriculturally abandoned for five years prior to 1904, and was covered with a scant growth of red sorrel, poverty grass and weeds.

"During the ten years, this field has been cropped with a six-year rotation including one year each of corn, oats (cowpeas), and wheat, and three years of meadow and pasture with clover and timothy.

"A fairly good stand of volunteer clover appeared with the oats in 1911 and this was allowed to produce a crop of clover hay in 1912, wheat being seeded in the fall of that year for the 1913 crop mentioned above.

"During the ten years about four tons per acre of ground lime stone and two tons per acre of fine-ground raw rock phosphate have been applied to 37 acres of this field. Two applications have been made of each material; the phosphate was plowed down for the corn crops of 1904 and 1910, and the lime stone was applied in the fall and winter of 1904-5 and after the ground was plowed for wheat in the fall of 1912.

"The entire 40-acre field was covered with one uniform application of six loads per acre of farm manure with a 50-bushel spreader.

"A six-rod strip entirely across the field (80 rods) received the same application of manure and the same rotation of crops as the remaining 37 acres, but no phosphate was applied to this strip, and no lime stone was applied to it until the fall of 1912, when the regular application (about two tons per acre) was applied to one-half (three rods) of the six-rod strip.

"Only 39 acres of this field were seeded to wheat in the fall of 1912, a lane having been fenced off on one side; and the 1,320 bushels were produced on the 39 acres.

"The actual yields were as follows: One and one-half acres with farm manure alone produced 11½ bushels per acre; one and one-half acres with farm manure and the one application of ground lime stone produced 15 bushels per acre; 36 acres with farm manure and two applications of ground lime stone and two of fine-ground phosphate produced 35½ bushels per acre.

"The cost of two tons of lime stone delivered at my railroad station is \$2.25, and raw rock phosphate has averaged about \$6.75 per ton, making \$9 per acre the cost for each six years.

"To this must be added the expense of hauling these materials two miles from the station and spreading them on the land, which I estimate at 50 cents per ton. This makes the average annual cost \$1.75 per acre for the lime stone and phosphate spread on the field, and this average annual investment resulted in the increase of 24 bushels of wheat per acre in 1913.

"Thus we may say that the previous applications of these two natural stones brought about the production in 1913 of 864 bushels of wheat, sufficient to furnish a year's supply of bread for more than a hundred people. No high priced or artificial commercial fertilizers are used on this farm.

"As a rule the check strips across each of the six 40-acre fields in the rotation are not harvested separately from the rest of the fields. The limestone and phosphate have produced even more marked differences in clover than in wheat; and where the first application of lime stone was made to the 3-rod check strip, as well as to the 37 acres receiving rock phosphate, the superiority of the phosphate and lime stone together over the lime stone alone has been exceedingly marked on both clover and wheat; and of course the wheat and other grain crops are benefited not only

by the lime stone and phosphate but also by the previous increased growth of clover on the well treated land, especially where this is pastured or plowed under.

"Poorland Farm is in no sense an experiment station, and neither is it a 'show' farm. It is operated solely from the economic standpoint, and with the full understanding from the beginning that general farming is not a highly profitable business, and that it is highly unprofitable on poor land. On the other hand it is equally well known that intelligent permanent soil improvement on land that must be or will be farmed is both the safest and the most profitable investment open to the farmer and landowner. But both the difficulties and the methods of building up rundown soil have been repeatedly discussed by the writer in public addresses and in published articles, bulletins, and books, and there is no necessity of repeating them here.

"Poorland Farm is usually inspected each year by my class of University students in soil fertility, about one hundred of whom saw the fields of wheat and clover in June, 1913. It is for the benefit of such as these, who desire to know the truth regarding economic systems of permanent soil improvement, that this brief statement is published. The farm is purely a private enterprise operated by Hopkins Brothers; and, while interested visitors are welcome, they are not invited, not met at the train with automobiles, and are not entertained. There is no desire to advertise this farm, but on the other hand, any light it sheds need not be hidden."

The Value of a Cow.

The best cow in the Dickinson County Testing Association produced 13,698 pounds of milk and 546 pounds of butter fat. This product gave a net return of \$104.93 over the cost of the feed. The question at once arises as to the value of such a cow. This cow is just a grade and the owner has refused \$150 for her.

A. S. Neale of the Extension Division of the Kansas Agricultural College, made a calculation figuring the value of this cow as any ordinary business investment would be figured, and found that such a cow could be capitalized at \$247.16 and return 6 per cent interest. Of course there is some risk to run, but a cow should reproduce herself at least once if not several times during her life time.

Up in Illinois the state university went out and bought two cows grazing side by side in the pasture of a large Illinois dairyman. These cows were placed in the college herd and given the same care and feed. After three years of accurate production records had been kept, including the cost of feed, some rather startling differences were revealed between the two cows.

Cow A produced 2.97 times as much milk as B and 2.93 times as much butter fat. To be more specific, cow A produced on an average of the three years 11,390 pounds of milk and 404 pounds of butter fat a year, while cow B produced 3,830 pounds of milk and 138 pounds of butter fat.

The better cow made a net profit of \$69.87 and the poorer cow cost \$3.94 more than she paid for. Cow A is earning 5 per cent on a capitalization of \$1,397 or 6 per cent on \$1,164. Cow B is a loss—not only is she of no income value, but she is costing more than the \$3.94 loss shown by her record. Any dairyman who unknowingly kept her calves to add to the herd would increase his loss in years to come by such poor stock.

A cow has worth only on the basis of net returns in milk or calves. The farmer cannot sell cow A for instance at her capitalized value of \$1,397 because cows have never been sold on such a basis. The market value has been set arbitrarily by the owner, or by bids at an auction, and generally in both cases it is mere guess valuation. But if you are to borrow money to buy cows, you want to know that they will have a capitalizing value to you.

It will increase your interest in the cows if you capitalize their values as suggested. That's the way business corporations capitalize their stock—only they are not always satisfied with actual value capitalization. They guess at the future values and capitalize that also. If farmers could fix the price of milk and butter on capitalized values it would make consumers whistle at the price!

If cow B is working for you, fire her at once just as you would any man who failed to give a profit on his labor.

Fuel and Repairs

You can lower these expenses

In three years' time supplies and repairs occasionally cost as much as the price of a car. Careless lubrication is responsible for most of this expense.

Oil of a body which is incorrect for your motor brings many penalties.

Low-quality oil in time may bring practically every trouble a motor can face.

Oil of wrong body or low quality will waste power. The more power you waste the more fuel you must consume.

To secure the correct oil for your car, consult our Lubricating Chart printed, in part, at the right.

On request we will mail a pamphlet on the Lubrication of Automobile Engines. It describes in detail the common engine troubles and gives their causes and remedies.

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Mobilolubricant—In the new patented Handy Package. The correct grease for compression cups, for power-transmitting parts of automobiles, and for lubricating farm machinery. The spout fits the filling plug opening of the Ford, and all other cars. To expel the grease—turn the key. No dirt—no waste—no trouble. Sold in one and three-pound tins.



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It is safest to buy in original barrels, half-barrels and sealed five and one-gallon cans. See that the red Gargoyle, our mark of manufacture, is on the container.

For information, kindly address any inquiry to our nearest office. The city address will be sufficient.

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Read This Letter

St. Anthony, Ia.
Moline Plow Co., Moline, Ill.

Gentlemen: I purchased one of your 8-foot Adriance Binders this year from your dealer, Jacob Mayer, and have used it to cut my wheat and 70 acres of oats and I find it is the easiest handled machine I have ever run, as well as lightest running, there being a marked difference in draft. I have used three other makes of binders. I also find that this machine handles short grain better than any of them. I used it in extra heavy oats and it handled them fine.

I can recommend it to any one wanting a Binder as "The" Machine to buy.
(Signed) F. Hammond.

LIVE STOCK



Scours in Little Pigs.

A writer from Iowa reports the following as a successful and never-failing remedy for scours in little pigs. He says, "I give a teaspoonful of carbolic acid in the sows' milk once a day for two days, and I have never seen it fail to prevent or cure scours in young pigs."

"An ounce of prevention is worth a pound of cure," and everything possible should be done to prevent scours from starting. The bedding should be kept clean. Damp, unclean sleeping quarters often tend to cause this difficulty. The feeding of the sow should be watched carefully. No abrupt changes should be made and no sour or spoiled feed should be given. A feed of buttermilk to a sow with young pigs will often start the pigs to scouring.

Fewer Cattle in Flint Hills.

The pastures in the flint hills regions will be filled with cattle, as usual, this season. These grazing lands are doubtless decreasing in their producing powers to some extent. It is estimated by stockmen that their capacity this year will only be about 60 to 70 per cent of the usual number; in other words, six acres is being allowed per animal, instead of four, as has been the usual method of figuring.

These grazing lands of Kansas have been steadily increasing in value. During the past ten years this increase has amounted to fully 100 per cent. During this same period of time their carrying capacity has undoubtedly been decreased. With the steady increase in value it has become almost absolutely necessary to take some measures to maintain, if not permanently increase, the grazing capacity of this land. Over-pasturing in a dry time has probably done as much harm as any one thing. Possibly when more silos are built so that reserve silage can always be kept in store, these pastures may be better cared for during the hot, dry spells that are bound to come from time to time.

Study Breeding Records.

It is a good plan for the hog farmer to begin early in the season to study over his breeding records with the idea of making selections from the gilts for future brood sows. Even the farmer merely producing pork can well afford to keep litter records and study them carefully in making his selections of breeding animals. The character of prolificacy is a hereditary character. The selection of a gilt from a litter in which only three or four pigs were farrowed is likely to inherit the same character, although this does not always follow. Where the records of several years are available this character may be studied in the next generation back.

If no attention is paid to records it is very easily possible to select most of the gilts to save from the small litters. These small litters will almost invariably have some advantage over litters of larger size, owing to the fact that the pigs had the advantage of more milk while suckling the sow. The expert breeder as he goes in and out among his herd is always studying the individuals from the standpoint of their ancestry. If he is not doing this he cannot hope to attain much success as a breeder of improved stock.

Watch the Work Horses.

At no season of the year do the work horses of the farm need as much watchful care as during the spring. The horse which has been carried through the winter on a maintenance ration and has performed no work is bound to be soft. If put to heavy farm work without a gradual hardening process, bad results are almost sure to follow. The greatest of care should be used in fitting the collars. The collar should be kept perfectly clean and the horse should be thoroughly groomed. The dirt which accumulates under the collar becomes hardened by the sweat and is almost sure to start bad sores, unless careful attention is given to prevent this difficulty.

After the horses have got well hardened to the work and are putting in full time they should receive good, liberal rations. In order to perform hard work steadily they must have an abundance

of energy-making feed. When a day of idleness comes the feed should be reduced. Horses consuming heavy rations are likely to develop cases of azoturia if the same heavy feeding is continued when the horse is out of the work for a day or so.

On many farms brood mares are being used for doing the farm work. If handled properly a brood mare may perform a considerable amount of work up almost to foaling time. The brood mare, however, must never be compelled to back a very heavy load, and should not be whipped up and started suddenly. Steady, straight ahead work, making no attempt to place an unusual load on the mare, very seldom produces any serious results.

Common Horses a Drag.

Under the above head the Daily Drivers' Telegram of Kansas City, presents some valuable suggestions concerning the present trend of the horse market. According to the Telegram common horses are losing the broad market their producers once enjoyed. City teaming interests, farmers and other buyers are constantly demanding more and more quality in the animals they use. As a result, common work horses are worth less today than a few years ago. Animals of this grade are selling less actively at the Kansas City auctions than other offerings even though they have declined in price.

Dealers and shippers connected with the Kansas City market are particularly disappointed this spring over the outlet for common horses. One of the important factors in the contradiction in the demand for the plain grades is the mild winter, which enabled thousands of farmers in Kansas, Missouri, Oklahoma and Nebraska to plow their ground for spring planting in December and January. There is little local demand for farm mares as a result, producers having less than a normal amount of work to do this spring. Usually Kansas and Missouri are represented with buyers at each Kansas City auction at this season of the year. Kansas has not made a single full load purchase of farm mares here this spring. It is believed by dealers that the absence of demand from the Sunflower state is due in part to the new rule of the state live stock sanitary commissioner requiring the unreliable mallein test on all horses and mules entering its borders.

That Oklahoma, Texas and Colorado are not buying cheap farm horses with the remarkable avidity of seven or eight years ago may be attributed to the cessation of the great flow of immigrants into those states. When Texas, Oklahoma and Colorado were being settled by farmers of limited means, including former tenants, many loads of cheap horses from the Kansas City market were taken into those states. The new agriculturists needed work stock and bought the only kind they could pay for—the cheapest animals on the market. Conditions have changed since. Many of the new settlers have been breeding supplies and others have accumulated sufficient wealth to enable them to buy animals of quality. So long as there is no heavy movement of farmers who are embarking in the agricultural business independently for the first time, the Kansas City market can expect no revival in the demand for cheap farm horses.

The farmer who is keeping up with the times is not breeding the kind of horses referred to. The Telegram goes on to say that farmers who fail to take cognizance of the present situation in the horse market may find little profit in breeding their mares this season. With cheap horses weak, it is necessary for farmers to choose the best stallions in their communities in mating mares. Farmers of Kansas and other states having stallion laws should examine closely the licenses of their stallioners. The farmers of states without the protective stallion laws should study closely the sires offered them to make sure of the best possible offspring. The additional cost of service fees will be returned many times when the matured offspring is finally marketed.

Kansas needs more trees. This month is the time to plant them.

GET ALL THE WOOL—LONGER AND BETTER—MORE MONEY!

You will net from 15c to 20c more on every sheep you shear with a Stewart No. 9 Machine. Don't labor with hand shears in the old, hard, sweaty way. Don't have aching, swollen wrists. Don't scar and disfigure your sheep with uneven shearing and spoil the wool with second cuts. Take off the fleece smoothly and quickly in one unbroken blanket with a

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To clip horses at the proper time improves the skin in every way. They look and feel better, do more work, rest better and get more good from their feed. Insist on having the "Stewart." It's the easiest to turn, does the fastest work, stays sharp longer and is more durable than any other clipping machine made. Get one from your dealer, price \$7.50 or send us \$2.00 and we will ship C.O.D. for balance. Satisfaction guaranteed.

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BICKMORE GALL CURE CO., Box 432, Old Town, Maine.

HORTICULTURE



Starting Roses From Slips.

One of our readers writes for information regarding the starting of roses from slips. Prof. M. F. Ahearn of the horticultural department of the Kansas Agricultural College, supplies the following information on this subject:

"Roses may be started from slips with considerable success. The principal points to be considered are the condition of the wood, the medium in which the cuttings are placed and the care. The wood should be fairly mature, usually of an olive green color. The young shoots on the plants should never be used as they are very tender and rarely send out roots. The cutting is made by leaving two or three buds and only a small amount of leaf surface. The best medium is clean sharp river sand. The cutting should be placed about one and one-half inches deep and two inches apart and the tops should be sprayed every day. The chances for success are greatly increased if there is some way of providing bottom heat, and this in the greenhouse is usually accomplished by running one or two pipes through the cutting bed. At home I believe a person could substitute the radiator or register. We usually make our tea rose cuttings during the winter and our hardy rose cuttings either in the spring or the fall. The hardy roses may be rooted without using bottom heat."

Sprays Must be Used With Care.

The spraying fruit trees has already begun in some sections of the state. The harvesting of a good crop of perfect fruit is absolutely dependent upon the care with which the work of spraying is carried out. Hit or miss methods should have no place in the work of spraying fruit trees. Spray solutions that are carelessly mixed or applied may do great injury to the trees, or they may fail to harm the pest which is being combated.

"No matter what material is being used, it must be coated evenly over the surface of the leaves and fruit to afford protection," says D. E. Lewis, assistant in horticulture at the Kansas Agricultural College. "If a great amount of sediment is deposited on one part of the tree and a small quantity on another, the results are not uniform, and in some cases may cause a loss instead of protection."

"To prevent this undesirable condition, all of the spray solution used must be of a definite known strength, and it must be so well agitated that every portion of water sprayed on the plant contains the same amount of protective material as every other portion. If sediment is found in the sprayer after all the solution has been sprayed out, it is evident that the agitator is not keeping the solution well stirred and that the results of the work will not be satisfactory."

A machine that works perfectly is not all that is required for success. When it is remembered that only the fruit or other portion of the tree touched by the spray is protected, it will be evident that absolute thoroughness is necessary. Telling how to apply spray, Mr. Lewis said:

"To leave a maximum amount of spray material on the part sprayed, the nozzle used must give a fine mist and be carefully handled by the operator at its best spraying distance from the fruit. An examination of the leaves and fruit after the water has had time to evaporate, following the spray application, is the best way of telling if the work is being done right."

"Well sprayed parts show an even, continuous coating, and should not show the collection of spray material on the lower edge of the leaf. The petal-fall application is intended to fill the calyx cups full of poison, and must be directed down from above and in from the sides to accomplish this purpose. A strong pressure and coarser mist of spray is desirable, as by its use the work can proceed more rapidly and the spray is forced well into the calyx cup. Pressure of 200 pounds is sufficient."

Starting Fine Seeds.

To get the very fine seeds—petunia, begonia, portulacca, lobelia, mimulus, gloxina, nicotiana, primrose, calceolaria,

and many other sorts hard to germinate under ordinary conditions—to start readily, I have found a seed bed prepared on top of a soft brick, ideal. By this method you will not need to disturb the seeds to water them. Place the brick in a pan of water and the moisture will soak up to the soil above, keeping it just right.

Make a rim of thin boards just large enough to fit over the brick, and if loose enough to slip down freely, drive a shingle nail through each side near the end so as to hold the rim an inch above the top of the brick. A cypress lath makes a good rim, and will last much longer than a pine one. Fill in a half inch of firm soil, leaf mold and garden soil, mixed with a good percentage of sand. Moisten the soil and when it is moist enough to form a ball when pressed and yet will crumble at a tap, put it in the oven, allowing it to become steaming hot. The steam heat kills the weed seeds and insects without burning the soil. If heated when very dry it does not steam and so will be apt to have all vegetable matter burned. Such soil is not a good live one, and, while seeds will grow in it, they are never so thrifty.

Begonia seeds are very hard to grow to transplanting size, as the seeds are very fine. They should not be covered, but just sprinkled over the surface and pressed lightly with some smooth object. Mimulus, fuschia, lobelia, and some others are almost as difficult to sow, but are more hardy and can be more easily grown to transplanting size.

When the little seedlings are large enough to prick out with the small blade of a pocket knife, prepare a shallow flat for them, using the same kind of soil, and transplant them, setting them far enough apart to prevent crowding. As fast as they touch each other, move to other flats or into pots. Not over 2½-inch pots should be used, for if put into pots too large the soil cannot be kept from souring without taking extra precaution.

Do not let the brick stand deep in the water, for it should only take up what will pass through the whole brick. Do not allow the water to become stale. If care is not taken in these things the young plants will damp off. It is best to sow the seeds rather thinly, too. If too thick, the plants will be spindling and will be more apt to damp off. I prefer to have each little plant by itself even from the start.

It is not a good idea to plant the varieties together, for some come up sooner than others and grow more rapidly. These will injure the others.—L. H. COBB, Dunavant, Kan.

SUBSTITUTES FOR CORN AND BRAN

(Continued from Page Five.)

pulp, making it two parts chop, two parts pulp and one part meal. I was unable to carry out my intentions, however, through the interference of the medical milk commission which considered dried beet pulp objectionable feed in the production of certified milk such as we were producing under their certification. I could detect no undesirable flavor in the milk, nor did the bacteria in the milk increase. I believe firmly that under the sanitary conditions which we employed in the production of milk, no objection should be raised against dried pulp.

From what limited experimental work I did, I believe that a good quality of alfalfa meal will readily replace wheat bran if fed in small proportion with other concentrates, say one to three parts, I am also convinced that dried beet pulp can be classed as a valuable carbonaceous feed which ranks well with corn and can be used to replace it to advantage in the dairy grain ration, even in our certified dairies if sanitary methods are employed.

The natural habitat of animals is a place where their food is found. To raise food for animals in one region and feed it in another is a departure from the methods of nature.

Ninety-nine out of every 100 people file a hoe on the wrong side, the outside. Try filing it on the inside and see if it doesn't work easier and do better work.

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Davenport Roller Bearing Steel Wagon

Gears are of high grade structural steel, like that used in railway bridges and modern "sky-scrapers." Axles are I-beams, with ends rolled down to receive spindles. All original strength is retained. No material is cut away. Gear parts are steel angles and channels, carefully built and braced so that the load is evenly distributed. No one piece carries more than its should. Put together with steel rivets, inserted hot, not a single part or piece will come loose and rattle on Davenport Gears, even after years of use.

Steel Wheels Don't Shrink

Steel wheels, made with a tension, are the only ones used on Davenport Wagons. The weight of the load is always carried by all the spokes—each one doing its share whether it is at top, bottom or sides of the wheel. Strongest wheels ever put on a wagon.

Roller Bearings Reduce Draft

Roller bearings, straight spindles, etc., together with the accurate construction of the entire gear, reduce the draft to the minimum. These bearings make it possible to haul a load on a Davenport with two horses that would ordinarily take three.

Oil Without Removing Wheels

You don't take the wheels off a Davenport to oil it. Just push back the cover of the dust-proof oil cup and squirt in a few drops of oil—the cover closes automatically. Hardly a minute to a wheel—and the job is done.

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JOHN DEERE
Moline, Illinois



A kafir growing contest, such as is being carried on in Southwestern Kansas, is a splendid thing. It will make the boys, who are to be the Kansas farmers of the coming years, familiar both with the advantages of kafir and with the best methods of raising it. This familiarity is bound to make the crop more and more one of the staple crops of the state.

Ill-considered blame and sentimental praise of the rural school are giving way to constructive planning, which, seeing

both the good and the bad, seeks to increase the one and eliminate the other.

"The farm kitchen is the most important room in the house," says the Federal Department of Agriculture. The progressive farmer put the thought into practice long ago.

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Making Money Dairying

Before Allen County Farm Bureau by A. S. Neale,
Assistant Superintendent Farmers' Institute K. S. A. C.

THE man whose farm can all be cultivated cannot afford to leave it in pasture when the land value has increased to \$75 per acre. He can feed much cheaper from the silo, and the cow that is fed a liberal ration of silage and alfalfa hay throughout the summer will produce more milk and be in better condition for the winter work than if she runs on ordinary pasture. There are some lands throughout the state that should not be broken up, but for best use must be left in pasture. A man who owns this kind of land should make an effort to increase the value of these pastures every year. There is perhaps nothing more injurious to permanent pasture than close cropping during dry seasons. The man who has land of this sort should by all means be provided with a sufficient amount of silage so that he can supplement the pasture during the dry seasons and during the hottest weather. In this way his pasture will not deteriorate so rapidly as under the present system commonly followed. Consequently the man who is going to make a success of dairy farming must be provided with silos for both summer and winter, thus insuring a good supply of feed for the entire year.

BETTER FEEDING OF COWS.

I said that the average cow of Kansas is producing 120 pounds of butter fat per year. There are two reasons for this. In the first place she is poorly bred, and in the second place she is poorly fed. She is a scrub cow, and receives scrub care. The best breeder on earth would have been a failure had he not given intelligent care along with the intelligence he showed in his breeding. I believe that it is possible for this great herd of cows we are now keeping in Kansas to be brought up to a production of 200 pounds of butter fat per year by a wise system of feeding and better care. Consequently we need not only a better breed of cows, but a better breed of dairymen. One of the evils from which we are suffering is that a large part of the dairy business of this state is carried on as a side line. The man who makes dairying a side line will never be a successful dairyman. It is a business that requires strict care and attention to all the details. For this reason it will always be a profitable business for the man who is willing to give this care and attention, and it will always pay him more money for the labor he puts on it than any other line of business. The man who keeps only five or six cows cannot take time to give them the care and attention that he could if he had 20 to 30 cows, consequently if you are in dairying as a side line I would advise you to move up into the class who make dairying a specialty and increase the number of your cows up to the place at which you can profitably give them good feed and good care. You can then afford to have comfortable shelter for them in inclement weather, you can afford to provide silage and other feeds for them all the year round, you can afford to own a pair of scales, a Babcock tester and give some attention to the selection of your best cows and you can afford to own a pure-bred bull of some dairy breed with which to bring up the standard of your herd.

The question often comes up as to the sort of dairy cows the farmers of Kansas should keep, and we hear many arguments in favor of the dual-purpose cow. I believe that the man who is in dairying as a business, has no business with a dual-purpose cow. For the average fellow who is making dairying a side line she will perhaps be as useful as any other cow he can keep, because he is not willing to give care and attention to any cow, and the scrub cow or dual-purpose cow will probably do him as much good as any other.

IMPROVING QUALITY OF CREAM.

Another thing that the dairyman who would succeed must consider is the market on which he sells his product. The average price of butter fat in this state for the past year, taking all the various cream stations throughout the state, was not far from 25 cents per pound. The average price of butter fat at the same time at the co-operative creameries of Minnesota and Wisconsin was not less than 30 cents per pound. I am not going to go into the complete analysis of the causes of this price, there are several things that bear upon the question, but one of the most important ones, in my judgment, is the fact that a considerable part of the cream that goes to

our creameries is very poor and will not make good butter. The man who makes dairying a side line and keeps three to five cows produces the poor cream, and he receives the same price for it as the man who keeps 15 to 25 cows and produces a good grade. The premium is on the wrong man. We are paying the man who produces the poor cream entirely too much for his product, and the man who produces the good cream too little. I hope that in some way this may be remedied and that we will have a system of marketing which will enable the man who is producing good product to get a fair price for it. One of the ways in which this can be brought about is by seeing that nothing but a pure grade of cream goes from the farm to the market.

SELLING SURPLUS STOCK.

The man who is selling butter fat has another opportunity for making money, and that is by the wise use of his skim milk in the growing of pigs and calves. This is especially true with the man who is breeding up his herd. I do not know of any other breeding business that offers such opportunities as that of breeding good dairy cattle. The demand for good cows is better today than it ever was, and I cannot see anything in the future that will cause this demand to be decreased. On the other hand I believe that we are just coming into the area of good prices for dairy-bred cattle and that the prices we are receiving today will look small beside what we will get for this kind of stock within the next five or ten years. The whole country is waking up to the fact that we cannot afford to keep this scrub cow that we are milking on the farms of the United States today. This is making a demand for the dairy-bred cow and this demand is not only here in the United States, but in Mexico, Central America, South America, Japan, Australia, New Zealand, South Africa, and practically every country in the world, and a large part of this demand for better dairy stock is upon the breeders of the United States.

In summing up this talk I wish to say that I believe that the energetic young man who buys this quarter section and pays \$12,000 for it has as good an opportunity to make good today as he ever had. With our more improved methods of farming, with our better breeds of dairy cows, with the use of the silo and alfalfa, there is no reason why he should not pay for this farm and not only be permanently prosperous, but also have a field for the operation of all his skill. However, he must realize the fact that the present methods of farming, as followed on the average farm, and the present class of cows as kept by the average man, will only lead him to failure.

Spray the Orchard.

Farmers in Kansas at the present time cannot expect to secure a crop of good apples without spraying. Unless this is done three or four times the resulting crop is almost sure to consist of culls and wormy fruit. It is easy to get the information necessary concerning proper methods to follow. The Kansas Agricultural College can furnish spraying calendars and bulletins, which give in condensed form, most specific instructions. The recent bulletin entitled, "Insects Injurious to Fruit," is one that should be carefully studied by every intelligent orchardist. It is only through a full knowledge as to the habits and life history of the various insects that the damage they cause may be controlled. As in previous years, the Extension Division is sending out trained men who hold orchard meetings to which all the farmers of the neighborhood are invited. This gives an opportunity to actually demonstrate spraying methods. The men making these visits arrange circuits so that the traveling expenses of the visits will be light. These must be paid by the orchardists to whom the visits are made, but there are no other charges. All requests for help of this kind should be directed to the Extension Division, Kansas Agricultural College, Manhattan, Kansas.

Nebraska is doing something worth while in making a farm census. The statistics will include the number of farm owners, of tenants, and of employees, the length of the work day on the farm, and the wages paid the hands.



Farmer Onswon Talks on BEATRICE Cream Separators

The man who buys the Beatrice Cream Separator need never buy another separator.

It has but few parts that can ever wear out. And there's not a single part that can ever wear out or rust out that is not replaceable.

When the bowl or other part does finally wear out, you don't have to junk your machine and buy a new one. You simply buy a new part.

If you should replace every single part that could wear out on your Beatrice, the cost would be less than \$35.

Isn't that better than paying \$110 and over for a new machine, which is necessary with some separators?

That is just one of the great Beatrice points. The Beatrice is the high-grade, fair-priced separator that you can clean in two minutes and that gets all the cream whether the milk is hot or cold.

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SECURITY REMEDY COMPANY, Minneapolis, Minn.

Selling Pure Bred Stock

*Buyer Must be Educated as to Money
Making Value of Pure Bred Stock*

THE man who would make a success in selling pedigreed breeding stock must of necessity fortify himself with all the utility reasons and arguments for using pure-bred stock, as possible. A very large proportion of his prospective customers will ask questions which may seem foolish and irrelevant to the man thoroughly familiar with the value of the improved animal. If these questions are ignored or not treated seriously, in all probability the customer will be lost. The breeder has not only lost a customer but he has lost a splendid opportunity to widen the future demand for improved breeding stock by educating a new man as to the value of pure-bred animals in improving the common stock. The man producing market stock is always interested in knowing precisely what will be the additional money returns from the use of the pure-bred sire which is quoted to him at two or three times the price asked for the scrub or grade sire. He cares nothing whatever about the high prices paid for the animals appearing in the pedigree unless they can be shown to have a bearing on the money making possibilities of the animal in question.

The beginner in the breeding of pure-bred live stock too often fails to recognize that the selling of the pure-bred animal is an entirely different proposition from the selling of a load of wheat or corn or a carload of market hogs or cattle. These staple commodities with which he has been accustomed to deal in the past, have definite values on the market. It is not so with the pure-bred animal which is to be used for breeding purposes. Too often the young breeder when asked why the boar he may be pricing at \$50 is worth twice as much as a boar of scrub or grade breeding, will simply answer that this boar is pedigreed, his sire was such and such a boar that sold in some public sale for a large sum of money. He may go on and recite to his prospective buyer the names of a number of high priced animals which appear in the pedigree of this animal. If his customer is a new beginner in the use of pure-bred animals for breeding purposes, these arguments will have absolutely no influence with him whatever. It must be remembered that the man who has never used pure-bred live stock, naturally has had no experience whatever to guide him as to the utility value of animals pure in breeding. It must be accepted as a general proposition by the breeder of pure-bred stock that in many cases it is necessary for him to actually educate his customer as to the value of pure-bred stock before he can hope to make a sale.

A writer in the "Berkshire World" states that he one time asked a young inexperienced breeder of the type just described, why the pure-bred boar he was pricing at \$50 was better than any other kind of a hog. He told this young breeder that he was new to pure-breds and while he had plenty of money to invest he wanted to be sure that he could

realize a profit by paying the price asked. His first answer was that the price asked was extremely low in comparison with the prices being paid at various sales for animals of that quality. The breeder, when pressed further as to the profit making possibilities of the boar, said he would get better feeding pigs, but was unable to state how much less feed it took to make a pound of pork or how much earlier a given weight could be reached. This writer goes on to say that a small crowd of interested hogmen soon gathered around to hear the discussion. None of the breeders present seemed able to state in dollars and cents how much additional profit could be secured by using this pure-bred animal. Finally a man, who it later turned out was not a breeder of hogs at all but simply a market producer, answered the question satisfactorily. This hog raiser said that the barrows produced by the use of this good boar would actually make 240 pounds of pork from the same feed that would produce 215 pounds of pork on the barrows from the inferior sire. He went on to say that there would be more runs among the pigs in the scrub litter; that the pure-bred sire put more vitality, more quality, more easy feeding and early maturing qualities into the pigs than the scrub. He then went on to figure out by saying that on 40 barrows, each one producing 25 pounds of pork more per head, there would be an increased production of 1,000 pounds at no extra expense of feed or labor. This, at 8 cents a pound, would mean \$80. He then went on to show that in addition to this there would be a decided improvement in the gilts produced, which he considered easily worth another eighty or one hundred dollars; in other words, his argument had convincingly shown that the investment of \$50 in this pure-bred boar, instead of paying \$25 for an inferior, scrub animal, would result in actual money a profit of \$160.

The ability to rattle off a lot of high-sounding names of a pedigree, stating the prices at which the animals were sold in somebody's sale, have absolutely no effect whatever upon the man who is new to the value of improved live stock. As was stated by Mr. Cody in an article which appeared in KANSAS FARMER, February 14, the breeders of pure-bred stock pay far less attention to the selling end of the business than to the details of breeding, feeding and developing the herd. One of the most important things for the breeder of pure-bred stock to learn at the very beginning of his career as a breeder is, that he positively must make a thorough study of the selling end of the business. The article by Mr. Cody which was just referred to, gives many valuable suggestions on the handling of the selling business through correspondence. The breeder of pure-bred live stock could well afford to study these suggestions most carefully and endeavor to put them into practice in his own business.

Why Cow Testing Association is Good

*George Lenhart, Dickinson County,
Before State Dairy Association*

THE cow testing association gives us an opportunity to give the grade cow a rating. You all no doubt have learned that the good cow or the poor cow is like the letter "x" in algebra—an unknown quantity. I have had men tell me that they had a good cow to sell, and that she gave five gallons of milk per day. I would ask them how they knew and they told me that she gave a 2½-gallon pail full twice a day. Now in the first place a 2½-gallon pail, so called, does not hold 2½ gallons. In the next place it is considered full when it is two inches from the top. And lastly, it probably has an inch of foam on it which usually does not test very high in fat. But when you have your cows tested by a disinterested person you can put your finger on those figures and say she gave so many pounds of milk in December and so many pounds of fat, and it tested so much per cent fat. Now this is something that we who have a few cows to sell, or who would like to buy a few, appreciate very much.

Then again the testing association not only tests out the cows, but it also tests out the brains of the owners and feeders. That is the reason that some of

them want to drop out or do not join in—they dread the light.

Still another benefit of the association is to have the advice of the tester in the handling and feeding of cows. This is no small item. I know that although our tester at times probably felt that his advice was not esteemed, we received much benefit from it. And to his credit be it said that if one telling was not enough he would tell us twice. Another benefit to be derived from keeping records is to learn the result of feeding different feeds. For instance: Always before this the cows were favored by having some corn in their feed. This year they have to be satisfied with Ko-Pres-Ko cake and you can readily see if they are doing as well on the cake alone as if they got some corn in their feed.

Then again the members of an association derive much benefit from an exchange of ideas. At one of our meetings it was suggested by some one to have an experience meeting, and it is surprising what an antidote that is for "ego." And I presume that even if you have never met that "gentleman," you have all heard about him and know that he is an arch enemy to all progress.

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1st If you are still using some gravity or setting process of creaming—

BECAUSE your cows have likely freshened now and your supply of milk is greatest.

BECAUSE your spring work requires every minute of your time and a good cream separator will be a great time and labor saver.

BECAUSE your young calves will thrive best with warm, sweet separator skim-milk.

BECAUSE with your increased milk flow your greater waste of cream, without a good cream separator, must run into more money than you can afford to lose.

2nd If you have a very old De Laval or an inferior separator of any other kind whether new or old—

BECAUSE the losses of the poor separator from incomplete skimming, and the tainted product of the hard-to-clean and unsanitary separator mean most when your volume of milk is the greatest.

BECAUSE of the ample and "more than advertised" capacity of the De Laval, with which you can separate more quickly and save time, when time means most to you.

BECAUSE an improved De Laval Cream Separator is so much simpler and more easily handled and cared for than any other, and you can't afford to waste time these busy days fussing with an inferior or half worn-out machine.

BECAUSE the De Laval Separator of today is just as superior to other separators as other separators are to gravity setting.



These are all facts a De Laval catalog, to be had for the asking, helps to make plain, and that every De Laval local agent is glad of the opportunity to prove to any prospective buyer. If you don't know the nearest De Laval agency, simply write the nearest main office, as below.

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TRENT'S Seed Corn

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SPECIAL PRICE FOR MARCH ONLY. Write for free catalog.

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Boone County White and Hildreth's Yellow Dent carefully selected, tipped and graded. Money back if not satisfactory. M. T. KELSEY, NORTHWOOD FARM, 106 Arter Avenue Topeka, Kansas.

GOOD corn land at \$15 per acre would find buyers faster than I could make the deeds. Yet a permanent silo at \$2 a ton is in the same proportion. We will furnish steel and build you a solid concrete silo (no joints) of 500-ton capacity for \$500. you to furnish gravel, sand and cement. A 16x45 silo for \$300, same conditions. Cheaper than wood. We have built 150 such silos in Kansas and know how.

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MY CORN IS OF THE BEST for it is of 1912 crop and has been carefully handled and selected. Every ear has been tipped, graded and fanned and none but the best used for seed. Reid's Yellow Dent, Boone County White and Shenandoah Yellow. Price, \$2 per bu. A. C. HANSEN, Willis, Kansas.

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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.



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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 a storm early and prepare for it.

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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

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Topeka, Kansas.



When embroidering princess slaps or corset covers which are to be button-holed around arms and neck, if one will hem a bias strip on one side and baste it to the work with the raw edge on the outside, before padding or embroidering but after stamping the pattern, there will be no danger of arms and neck tearing out as is so often the case. Trim as usual when through embroidering. This also helps as padding.

HOME CIRCLE



The high value of kafir and cane, as shown in experiments, should cause the acreage of these crops to be enormously increased.

It is said a good way to clean velvet or plush is to sprinkle on dry salt and brush back and forth until all dust and lint are removed.

A good way to clear drain pipes and save plumber's bills, is to pour boiling water and soda down them. Coal oil is also good to dissolve grease.

Have your children broken off the knob-shaped catch of their garters to which the stocking is attached? The next time this happens sew on in its place a shoe button, selecting as large a one as you can find.

In making rose or wheel tatting, to fasten the end of the thread in the center neatly and inconspicuously, make one double knot, turn the end of thread toward the shuttle, catch in loop for several double knots, then leave the end of thread until the loop or ring is drawn up and cut off.

Two iron holders attached to a piece of tape one and a half yards long, one at each end, and hung around the neck will be found a great help to the busy housewife when taking up the food for a meal when it is necessary to grasp hot utensils.

In stitching a cuff to a shirtwaist, if you begin an inch or more from the opening where the cuff joins the sleeve, and stitch around the cuff to the starting point, your threads, when tied, will be entirely concealed and will not show frayed ends at the edge of the cuff.

Save your husband's brother's or father's castoff suspenders for inner belts in your dress skirts with the raised waistline. First, rip them apart and give them a good scrubbing with brush and soap suds; when dry you will have a belt that will stay in place much better than the regular belting.

When crocheting with white silk or thread in warm weather the perspiration from the hands of ten soils the piece of work in such a way that it is difficult to cleanse it by ordinary means. To prevent this have some magnesia conveniently near and rub a little on the hands; the work will remain much cleaner.

When gathering ruffles, small skirts, and even tops and bottoms of sleeves, or bottom of waists, try letting out the stitch on your sewing machine as long as possible, then hold your hand on the spool, and you can make the gathers as close as you want them and they will slide along on the top thread as desired.

Are you able to tell without all unfolding whether you have a double or single sheet and whether you have a long or short table cloth? A simple way to mark them is to make a letter "S" for single, "D" for double, in the case of the sheets, and the number indicating the number of yards in the tablecloths, with a lead pencil, then either chain-stitch or outline-stitch over them with white embroidery cotton. This will save much time when you are in a hurry.

The Start for Her.

"My dear girl," said a father to his daughter, "what do you suffragists want anyhow?"

"Why, Dad, we want to sweep the country," replied the daughter.

"Do you?" said the father. "Why, now, suppose you take a broom and start with this room?"

By putting silverware in buttermilk over night it will remove stains and tarnish, making it bright.

Cereal with Variations.

When the children get tired of cereals cooked alone, vary them by the addition of fruit. To one quart of boiling water add one teaspoonful of salt, and sift in the cereal, stirring all the time. Let it boil rapidly for five minutes, then steam

for half an hour in double boiler. Have ready a half pound of dates or figs cut into pieces and steamed (a good plan is to put them in a small colander over the tea-kettle), and stir into the cereal when nearly done.

Shrinking Wash Goods.

Wash goods should not be made up without shrinking, and this is one of the simplest and easiest of tasks when a person knows how to go about it. If the goods come in folds from the store, leave it as it is. Otherwise, fold it into about one-third yard lengths, then lay it flat in a tub and cover it with water. Let it lie for an hour or more. Then take it out by the upper edges of the folds and hang it up, dripping, pinning the top every little way with clothespins so as to keep it as straight as possible. As the outside folds dry, they should be thrown up over the line to expedite drying. Goods treated in this way will need no pressing, and will not lose the original finish.

Use Care in Marketing.

One of the best places for a woman to stand and battle for her rights is in the store where she buys her groceries and her meats. It is a splendid place for one to use their wits. Whether a particular food is cheap or not depends on several things: On the place you pay for it, on the quality of it, and whether it suits the needs of your family or not. The best way is to go to market yourself and insist in a pleasant way upon having the best sort of food for the money you spend. Don't be afraid to complain of inferior goods. Any business man will have respect for a woman who displays an eye for business, and you will find that if you refuse to accept things which come to you in poor condition, they will take more pains in filling your order and you will get the best the market affords.

Sometimes in the market you see some dainty which seems high in price. Don't always give it up just on that account. It may be just the thing to appeal to your family and give them a keener appetite for the rest of the meal. In that case it is worth while. Also in considering the price you pay, think a little about what you are getting; that is, consider the nutritive value of your food. Get the food that will furnish the most nourishment for the money, the one that will build the most brain and muscle. Your family cannot grow and develop without food. Every step taken or every move of the body uses up energy which must be supplied by food. The ignorance of the one who does the buying is causing many tragedies. It isn't always the bulky foods that satisfy hunger that are the best and cheapest. The housekeeper should know something of the needs of the body and buy accordingly.

Another thing to consider is the waste. When buying meats, consider how much bone you are getting in certain cuts; be sure your head of cabbage is firm and not made up of outside leaves which you cannot use. If the thing you are getting is perishable, get just the right amount.

Also consider the amount of fuel and the time for preparation when doing your buying. When you buy a tough cut of meat which will take hours of slow cooking, do it on a day when you have the range heated for baking or ironing, unless you are using a fireless cooker, in which case the economy of fuel does not have to be considered.

Altogether there is much opportunity for a woman to develop her wits and intelligence in her own domain. One woman asked if anyone could tell her how they saved—not earned—a little money. Perhaps this is the answer, especially if she runs her house on an allowance, which is not a bad thing to do.

War and Politics.

If you want all the war news and a fair and impartial report of the interesting campaign and election in Kansas, order *The Topeka Daily State Journal* at once.

Special offer of \$2.00 until January 1, 1915. Patronize a Kansas daily newspaper. Address *State Journal*, Topeka, Kansas.—(Adv.)

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Kansas Fairs in 1914.

Here is a list of Kansas fairs to be held in 1914 and the dates, so far as determined:

Allen County Agricultural Society, Dr. F. S. Beattie, secretary. Iola, Sept. 1-4.

Allen County—Moran Agricultural Fair Association. E. N. McCormack, secretary. Moran, Sept. 16-17.

Barton County Fair Association. W. L. Bowersox, acting secretary. Great Bend, Oct. 6-8.

Brown County—The Hiawatha Fair Association. J. D. Weltmer, secretary. Hiawatha, Sept. 1-4.

Butler County—Douglas Agricultural Society. J. A. Clay, secretary. Douglas, Sept. 1-4.

Clay County Fair Association. W. F. Meller, secretary. Clay Center, Oct. 7-9.

Clay County—Wakefield Agricultural Association. Eugene Elkins, secretary. Wakefield, Oct. 9-10.

Cloud County Fair Association. W. L. McCarty, secretary. Concordia, Sept. 1-4.

Coffey County Agricultural Fair Association. S. D. Weaver, secretary. Burlington, Sept. 7-12.

Cowley County—Eastern Cowley Fair and Agricultural Association. W. A. Bowden, secretary. Burden, Sept. 1-4.

Cowley County Agricultural and Live Stock Association. Frank W. Sidel, secretary. Winfield, Sept. 8-11.

Decatur County Fair Association. J. R. Correll, secretary. Oberlin, Sept. 1-4.

Dickinson County Fair Association. C. W. Taylor, secretary. Abilene, Sept. 22-25.

Douglas County Fair and Agricultural Society. Vanroy M. Miller, secretary. Lawrence, Sept. 1-4.

Elk County Agricultural Fair Association. Fred R. Lanter, secretary. Grenola, Sept. 1-3.

Ellsworth County—Wilson Inter-County Co-operative Fair Association. W. S. Baxter, secretary. Wilson, Sept. 29-Oct. 2.

Franklin County Agricultural Society. J. R. Finley, secretary. Ottawa, Sept. 22-25.

Gray County Agricultural Society. R. W. McFarland, secretary. Cimarron, Sept. 1-4.

Greenwood County Fair Association. J. C. Talbot, secretary. Eureka, Aug. 24-29.

Harper County—The Anthony Fair Association. L. G. Jennings, secretary. Anthony, Aug. 4-7.

Leavenworth County Fair Association. Lucien Rutherford, secretary. Leavenworth, Sept. 9-12.

Lincoln County—Sylvan Grove Fair and Agricultural Association. R. W. Wohler, secretary. Sylvan Grove, Sept. 23-25.

Linn County Fair Association. C. A. McMullen, secretary. Mound City, Sept. 1-4.

Logan County—Inter-County Fair Association. F. W. Irwin, secretary. Oakley, Sept. 1-4.

McPherson County Agricultural Fair Association. Milton Hawkinson, secretary. McPherson, Aug. 18-21.

Mitchell County Fair Association. E. C. Logan, secretary. Solomon Rapids, Sept. 1-4.

Montgomery County Agricultural Society. Chas. Kerr, secretary. Independence, Sept. 1-4.

Montgomery County Fair Association. Elliott Irvin, secretary. Coffeyville, Sept. 29-Oct. 2.

Morris County Fair Association. A. M. Warner, secretary. Council Grove, July 20-25.

Nemaha Fair Association. M. R. Connet, secretary. Seneca, Sept. 29-Oct. 2.

Neosho County—The Four-County District Agricultural Society. Geo. K. Bideau, secretary. Chanute, Oct. 5-9.

Ness County Agricultural Association. J. A. Cason, secretary. Ness City, Sept. 1.

Norton County Agricultural Association. Fred Strohwig, secretary. Norton, Aug. 25-28.

Ottawa County Fair Association. J. E. Johnston, secretary. Minneapolis, Sept. 8-11.

Pawnee County Agricultural Association. Harry K. Walcott, secretary. Larned, Sept. 29-Oct. 2.

Pottawatomie County Agricultural Society. J. A. Lister, secretary. Wamego, Sept. 14-19.

Pratt County Fair Association. Jas. A. Lucas, secretary. Pratt, Aug. 11-14.

Reno County—Kansas State Fair. A. L. Sponsler, secretary. Hutchinson, Sept. 12-19.

Republic County Agricultural Association. H. L. Pierce, secretary. Belleville, Aug. 25-28.

Riley County Agricultural Society. Edd Beard, secretary. Riley, Sept. 1-4.

Rooks County Fair Association. J. C. Foster, secretary. Stockton, Sept. 8-11.

Planning Flower Garden.

Have you made your plans for your flower garden? Here is a list for one that will bloom continuously from early spring until fall, and all for a very small outlay. First come the nasturtiums, which can be planted around porches or windows if the vining kind are selected, or if you choose the dwarf, they can be used to border the walks. All this sturdy little annual asks is that its blossoms be kept picked for it to thrive. The old-fashioned snap dragon is another beautiful flower and if sown in early May it will bloom from August until late autumn. If these are given a little protection and the winter is not too severe, they will bloom in greater profusion the second year.

The marigold and the zinnias should not be forgotten, as they will grow anywhere and present a mass of bloom all summer long. They not only give color to the garden, but make a beautiful flower to cut for house decoration.

Blue is a color that is not so common in the garden. One of the prettiest of the blue flowers is the larkspur. It blooms from June until nipped by frost. Another blue flower is Ageratum. This is very satisfactory, as it makes a sheet of bloom from early summer until frost and the flowers are not liable to be spoiled by rain nor do their colors fade out. They can either be sown in flats and transferred to the beds in early May,

or sown outdoors in May, the only difference being that in the latter case the blossom comes a little later. If there is a wall or unsightly fence, include sweet peas in your list, as these flowers must be grown on a trellis or support of some kind. The beautiful part of this flower is that the more these flowers are cut, the more profusely will they bloom. But you must not forget to give them plenty of water.

Still another very satisfactory plant is the Gaillardia. The blossoms of this also should be kept cut and not allowed to go to seed.

Don't forget the asters for late September and October. They make such a wealth of bloom and are beautiful either for house decoration or garden.

Lupins are another easy flowering annual. They have long graceful spikes or rich and various colored flowers; they like a shady spot best.

These are only a few of the many beautiful things that one can grow and give joy not only to oneself but to friends and neighbors, at a very small outlay of either time or money.

Boys and girls who are raising crops of any sort, whether for contests or for other purposes, deserve every consideration and encouragement. They are beginning the work of real life, and no sensible man will make light of their efforts.

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This department is prepared especially in New York City for KANSAS FARMER. We can supply our readers with high grade, perfect fitting, seam-allowing patterns at 10 cents each, postage prepaid. Full directions for making, as well as the amount of material required, accompanies each pattern. When ordering all you have to do is to write your name and address plainly, give the correct number and size of each pattern you want and enclose 10 cents for each number. We agree to fill all orders promptly and guarantee safe delivery. Special offer: To anyone ordering a pattern we will send the latest issue of our Fashion Book, EVERY WOMAN HER OWN DRESSMAKER, for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to KANSAS FARMER, Topeka, Kansas.



No. 6572—Ladies' Shirtwaist: This simple model has a short tuck at each shoulder in front and a plain back. The neck may be made high with band and collar, or open with large square collar. The sleeves are plain and straight, ending in a cuff at the wrist. The waist pattern, No. 6572, is cut in sizes 34 to 44 inches bust measure. Medium size requires 3½ yards of 27-inch material. No. 6552—Ladies' Dress: Simple house dress, made with the kimono shoulder and an open neck trimmed with a wide collar and ornamental revers and with an inner shield or chemise. The sleeves may be long or short. The pattern, No. 6552, is cut in sizes 34 to 44 inches bust measure. Medium size requires 4½ yards of 44-inch material, ½ yard of 18-inch lace for the chemise, and ¼ yard of 24-inch satin for a girdle. No. 6512—Ladies' Shirtwaist: This shows a simple style for the tailored effects, worn so much with separate skirts. The tucks are in front only, and the closing is made with the usual box plait. The collar can be detachable, or form part of the waist. The waist pattern, No. 6512, is cut in sizes 34 to 44 inches bust measure. Medium size requires 3½ yards of 27-inch material. No. 6553—Girls' Apron: This simple one-piece apron can be worn over any dress. The closing is in the back, and the skirt section is in one with the bib, which covers the front and extends as a wide collar at the shoulders and again covering the back. The apron pattern, No. 6553, is cut in sizes 6, 8, 10, 12 and 14 years. Medium size requires 1½ yards of 27-inch material. No. 6559—Child's Dress: This frock shows the beauty of absolute simplicity of line. It hangs straight from the shoulders to the hem in front and back, closing in the front. The round neck is trimmed with a flat collar and the sleeves, which may be full length or shorter, have a band cuff. The dress pattern, No. 6559, is cut in sizes 2, 4, 6 and 8 years. Medium size requires 1½ yards of 36-inch material.

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The poultry breeder's percentage of profit depends quite a bit on selling costs. These profits are good, sometimes, and sometimes they are not. At the very best the average poultry breeder never got any more than his or her due. Usually it has been less. Not because the breeders don't know their business as breeders, nor yet because they are not good men and women.

No sensible breeder would allow the cost of raising stock to go twice as high as necessary. But sometimes the selling cost is allowed to get too high, because the wrong means of advertising are used. To select the right selling means for Kansas and adjoining states means money saved to breeders, besides money made in the better prices to be had when using the right means. The booklet, Profitable Poultry Selling, has been written, and is free to poultry breeders everywhere who will simply write for it.

KANSAS FARMER
Topeka, Kansas.

POULTRY



This is the season of the year when limberneck is prevalent. Walk around the premises and see that there are no dead carcasses lying around for the chickens to feed on.

Ducklings require different kind of feed from young chicks. They would never thrive on dry grains as chicks do, but must have soft feed and plenty of drinking water.

The very best that one can do is none too good in poultry work, for slipshod methods are bound to bring disaster. You will find by experience that unless you do your best, the chicks never seem to do their part. They want constant care, must be fed often and have plenty of fresh water. It is not hard work, but it is constant work to properly care for a lot of young chicks.

Do not be scared at the statement sometimes made that salt will kill chickens. It would not be wise to put salt in a hopper as you do shells or charcoal, but if you use a wet mash, always put a little salt in it, and the hens will relish it much better than without. Let a hen get a taste of blood and she is ravenous for more. We think it is the salty taste of the blood that appeals to her appetite.

Hens that are in good health never need any tonics or condiments, and drugs should never be given to hens for the purpose of increasing the egg yield. If one or two hens are ailing, do not medicate either water or food for the whole flock. If you think it best to treat any sick birds, treat them individually, and do not dose all the healthy birds in your efforts to doctor the ailing ones. Take the sick ones away from the others and keep them away till they get cured.

The only way to build up an egg-laying strain of any variety of poultry, is to select the very best producers each season, and use them for breeders. And now when they are laying is the time to pick them out and mark them. By such a careful selection, kept up year after year, with proper attention to quality of vigor, any careful breeder can develop a strain of his own that can be depended upon to give good results every year. But even then, it will never do to "let well enough alone," for that would mean a gradual running out of the good characteristics. We should never be satisfied with the results of any year, however good, but bend every energy to producing something better next year.

In brooding chicks, either in individual brooders or in brooder houses, the main thing which must be watched is the temperature, for if it is too high or too low the results will be unsatisfactory, even though all the other conditions governing the health of the chicks are ideal. Chicks three or four days old are fairly hardy little creatures and can endure a considerable degree of cold, provided that as soon as they become too cold they can quickly get warm again. But if they are forced to remain where the temperature is too low they catch cold very quickly, the lungs soon become inflamed, little nodules of light colored cheesy matter form in them and death results. After all there is no brooding machine that can beat the old hen. If she is confined in a coop, and the chicks are allowed their freedom, she has always the proper degree of heat to impart to them when they become cold and has the best resting place in the world for a wee, tired chick.

Kentucky and Tennessee Rooster Day.

In the interest of the infertile egg the poultry specialists of the Federal Department of Agriculture have started a campaign for the elimination of the rooster among poultry flocks during the seasons between May 1 and December 1. In this connection Saturday, May 16, has been set aside by the people of the states of Kentucky and Tennessee, as rooster day, and every poultry dealer in these states has agreed to pay the same prices for roosters as they do for hens and pullets.

There is an enormous loss in eggs as the result of the fertile egg, especially during the summer and fall months, and

it is for this reason the department recommends that the rooster be kept away from the hens during these seasons.

Fertile eggs spoil very quickly when subjected to the ordinary methods of handling on the farm and when marketed during the hot summer months under adverse conditions. Infertile eggs will keep in good condition in temperatures which will cause fertile eggs to rot.

It is estimated that one-third of the tremendous annual loss of eggs is due to the fertile egg.

The department specialists advise that on the 1st of May all male birds be either killed, sold, or confined until December 1, or as late as January 1 in some localities, inasmuch as it is not necessary to the laying qualities of a hen that a rooster be maintained in the flock. Moreover, his presence during those months means fertile eggs, which mean bad eggs and the consequent loss to the producer and the consumer.

Cross-bred Fowls.

It is strange but true that many farmers, and some others for that matter, can seldom be convinced of the superior merits of pure-bred fowls over cross-bred fowls. They will admit that pure blood is good, but generally want it crossed. Instead of asking what is the best breed for such and such a purpose, they will invariably ask if crosses would not bring about the desirable results. For instance, a person will ask if a cross of a White Leghorn male or a Light Brahma hen would not make a better breed than either of the others. It might, but why bother about that when we have the Columbian Wyandotte, which has some of the characteristics of both the breeds mentioned. Simply crossing two thoroughbred fowls will not make a thoroughbred of the progeny, but on the contrary it makes mongrels of them. It takes many crosses and out-crosses before a pure-bred strain of fowls is made. And this is not a work for the farmer, but for a lover and an expert in poultry matters. And it means a matter of a dozen years or more before a strain can be perfected so as to give satisfactory results in the breeding of the new birds.

Can any one explain why so many desire a cross-bred chicken. To be sure, the first crosses of pure breeds often prove valuable birds for practical purposes, but are they any better than the standard breeds we now have, and besides after you have them, what have you got? Mongrels, that's all, and they can never be sold for anything above market price for ordinary fowls.

On the other hand, fanciers in the city and in villages, where they can raise but a limited number of fowls, are always looking for farm raised stock that is strictly pure, and if the farmer has them, he is the recipient of a good price in exchange for them every time. How much nicer also, it is to see a lot of one variety of fowls roaming about the farm and how often it is when a fancier driving by sees a good bird and stops and buys it at a good, round price. Whereas if the farmer had his cross-breeds, no matter how pure the original breeding might be, if crossed, the bird would not command any price over ordinary dunghills. At the fairs and in the shows, the pure-breeds receive all premiums and it is liable to continue that way. Breeding the standard varieties of fowls is growing more and more in favor every day, but it has not yet reached its climax by any means, and fanciers should not be satisfied until it does, and the breeding of thorough-breeds becomes universal. It is not yet too late to send away for that sitting of pure-bred eggs and so get a start in the thoroughbred business.

Save the Chicks.

A great many people seem to be unable to save their little chicks from white diarrhea. W. R. Taggart, Meriden, Kansas, writes: "Since using Inomal White Diarrhea Remedy we haven't lost a chick. We also saved several that were nearly dead." By addressing the Hammer Remedy Co., Y-1, Lamoni, Iowa, readers may obtain a full 50-cent box of Inomal Remedy for a two week's free trial.—Adv.

Do you know that—

Fresh meats, dusted with Borax, will keep fresh much longer. Rub the Borax in as you would pepper and salt. Wash the meat before cooking.

Borax, added to the water in which your washing is done, saves lots of valuable time. It makes washing a simple and easy undertaking, without any attendant harmful results. Add three heaping tablespoonfuls or more to every tub of water.

Bacon curers use Borax in place of salt for curing.

The hands will be kept soft and white, and free from all chaps, redness and roughness if Borax is used in washing them.

If you want your clothes a snow white—not yellow-white, or gray-white, but real white—use Borax in the cleansing water. It will also restore to a snowy white after two or three washings, linens that have acquired an old, yellowish cast through frequent washings with ordinary cleansers.

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Tells why chicks die

J. C. Reefer, the poultry expert of 1601 Main St., Kansas City, Mo., is giving away free a valuable book entitled "White Diarrhea and How to Cure It." This book contains scientific facts on white diarrhea and tells how to prepare a simple home solution that cures this terrible disease over night and actually raises 98 per cent of every hatch. All poultry raisers should write Mr. Reefer for one of these valuable FREE books.

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Keep Chickens Busy and Hungry.

The common error in feeding young chickens is to pamper and overfeed them. Chickens have a quick, active digestion, which, if continually gratified, will result in a very rapid growth as long as the digestive system can stand it. Then they "go to pieces" because they have been "fed off their feet," as is said. Gout, loss of appetite, enlarged liver, etc., result. This statement is not intended to encourage insufficient feeding. Chickens frequently suffer in this respect also. They must be fed with good judgment, according to their appetites. They should be compelled to hunt for all their grain in a litter of chaff and sand on the brooder floor until they are three to four weeks old. If they are not hungry enough to do this, food should be withheld until they will scratch for it. Young chickens should be kept in such a condition of hunger that they will come flying for their food. They should then be fed enough to satisfy them, and then come hungry for the next feeding. Chickens will not grow quite so rapidly for the first few weeks under this system of feeding as by forced feeding, but the mortality among them will be far

less. After the chickens have grown their first feathers, one feeding a day should be given, in place of Johnny-cake. Some ground food must be given if rapid growth is desired, in order to produce early market broilers. At this age and for this purpose the feeder can take chances on over-feeding for a short period.

White Diarrhoea.

Dear Reader: I see reports of so many losing their little chicks with bowel troubles, so thought I would tell my experience. I used to lose a great many of my little chicks from this cause, tried a good many remedies and was about discouraged with the chicken business. Two years ago they began to die and I thought I would try Walker's Walko Remedy. I used two 50-cent packages, raised 300 White Wyandotte chickens and never lost one or had one sick after getting the medicine. Readers can get it by sending 50 cents (M. O.) to the Walker Remedy Co., E-8, Lamoni, Iowa. I wouldn't try to raise incubator chicks without it.—MRS. C. M. BRADSHAW, Beaconsfield, Iowa.—(Adv.)

Beef Cattle on General Farm

By TUDOR J. CHARLES, Republic County

THE raising of beef cattle along with general farming is a much neglected opportunity that comes to nearly all farm owners and long-period renters in Kansas. In my own township where the farms, when they can be bought at all, sell for \$75 to \$125 per acre, not five per cent of the farmers are making a business of raising beef cattle. Usually you will find on those farms from two to a half a dozen cows that are pretty badly crossed with the beef and dairy breeds. In most cases the calves are disposed of in the fall instead of being kept to increase the herd or fattened for beef, thus converting the grain and hay into high priced meat.

I know this is true of my own township, and what applies to my township will apply to my county and will probably apply to many counties in the state. The plea that we have no natural summer pasture for cattle, is a lamentable truth, but this is no cause for resigning ourselves to such a condition. I have a neighbor who is raising beef cattle on his farm without an acre of natural grass. He successfully grows tame grass pasture for summer and corn and alfalfa for winter. What this man does others can do if they will only apply the hours of thought and careful labor that such a financial investment requires.

On our own farm we have a tract of timber land that is pastured instead of permitting the weeds and the underbrush to grow and produce a jungle. Many localities where the farming land is high in price, are not far remote from tracts of rough lands that are not good for anything but to be used as pasture lands. If such pasture can be obtained it will probably be cheaper than to grow tame grass pasture on the home farm. Don't forget to take into account, however, the fact that when you produce tame grass pasture you are renewing the fertility of your own land.

I believe if we Kansas farmers are to continue in prosperity, we must arrange our work to cover every month in the year instead of cramming it into a few weeks through the spring and summer and fall. This demands the keeping of live stock upon the farm the year around. I do not know of any domestic animal that can be bred, raised and kept more economically on the Kansas farm than the beef cow.

The missing link that has turned failure into success in the breeding and raising of beef cattle along with general farming, has been found. That missing link is the silo. A silo 16 by 20 feet will hold 120 tons of silage. We have filled our silo of this size from eleven and a half acres of corn. Last fall, owing to the unfavorable conditions during the growing season, it required 35 acres to fill two such silos.

One hundred and twenty tons of silage will supply 33 head of cows with carbohydrate material enough to keep them a year, which would mean about twenty pounds of silage per head each day. This, balanced with about fifteen pounds of straw and a little cottonseed meal, or seven pounds of alfalfa hay per day, will keep a cow in good condition. These figures will vary with the condition of the weather and whether or not the cow is suckling a calf. Experiments have

shown that when silage is introduced into the rations of fattening cattle, it lowers the grain ration, thus lowering the cost of gain. Stockmen must not think silage can be used alone as the sole food for cattle and obtain the best results.

Referring to my own experience in the growing of beef cattle on the farm: We have at present a herd of 90 head of beef cattle. It is fair to say they have all been raised on the farm, while a few cows were bought in starting the herd enough steers have been sold to make it an even break. I would not advise the average farmer to buy a herd of cows to start in the business of raising beef cattle, but buy a few cows and a good bull of one of the beef types and you will be surprised how soon you will have a herd. Our own herd of ninety head was started only four years ago with sixteen cows of the Shorthorn breed, mostly registered. The number disposed of is equal to the original herd so the 90 head is an increase. We have always used a registered bull.

Every farmer who owns and operates a quarter section of land in North Central Kansas can easily keep a herd of twenty cows the year round if he would devote himself to the attention they require instead of over-working his farm force six to eight months of the year in exclusive grain farming and running rusty the remainder of the time. I mean by this that a farmer can make more dollars by farming less acreage and farming it better, renewing the fertility of the soil by the keeping of live stock.

It will take a man and team about an hour and a half to feed a herd of ninety head two feeds each day. A mixed herd should always be separated at feeding time, dividing them as to size and age, never putting more in one yard than the feed bunks and racks will accommodate. Don't feed a herd of horns; one mean cow can cause a great deal of suffering by her vicious thrusts and jabs. A mean pair of horns will empty a warm barn or shed that would otherwise provide shelter for twenty head of peaceable cattle.

Our heaviest losses in the cattle business have been from the cornstalk disease. Since we have had silage to feed the herd has been free from losses of this kind. We leave the gates open for the cattle to go to the field whenever they want to. I believe this to be a strong argument in favor of silage, since we know it to be a laxative feed and an excellent conditioner.

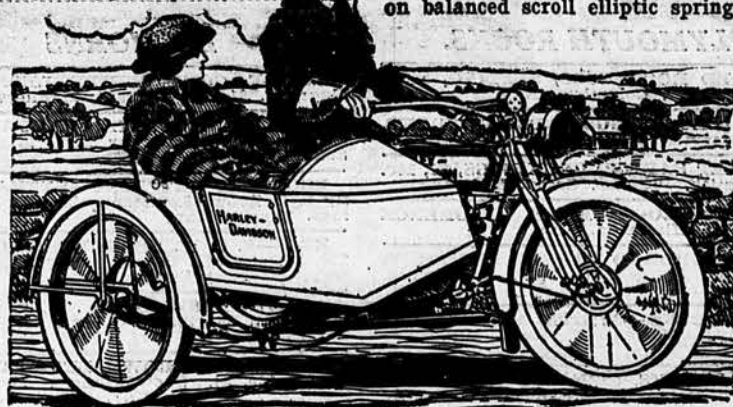
The time for disposing of the surplus stock will necessarily depend upon the amount of pasture we have and the accommodations we can give the herd. If we should be short on pasture we will have to make baby beef of the calves; we prefer feeding them as two-year-olds, keeping back the promising heifers to become cows in the herd.

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EGGS FOR HATCHING, ALL VARIE- ties. Kansas Poultry Farms, Virgil, Kan. Twenty-five per cent discount for names.

You will find a lot of bargains on Kansas Farmer's Classified Advertising Page this week. Don't fail to carefully read that page.

SICILIAN BUTTERCUPS—NO FINER stock in existence. Eggs, \$2 for 15; \$5 for 50. Frank Miller, Route 7, Oklahoma City, Okla.

DARK CORNISH AND BARRED ROCKS—Eggs from blue ribbon winners. Write me for the mating list you want. W. W. Graves, Jefferson City, Mo.

EGGS FOR HATCHING FROM PURE- bred ducks, turkeys and chickens. Poland China pigs, the big easy-keeping kind, \$8 each, \$15 a pair (not related). Mrs. Maggie Rieff, St. Peters, Minn.

THE SUNFLOWER POULTRY FARM, Kansas City, Kan. Office, 546 S. 11th St. Breeder of Barred Rocks, Buff Orpingtons, Rhode Island Reds and Black Minorcas, Pekin and Indian Runner Ducks. Settings from prize winning stock, \$2.00; second pens, \$1.00.

TURKEYS

BOURBON RED TURKEYS—FINE IN size and color. Eggs for sale, 11 for \$3.50. Mrs. J. E. Bundy, Goodrich, Kan.

MAMMOTH WHITE HOLLAND TURKEY eggs from prize winners, \$3 for 11. G. D. Willems, Inman, Kan.

LARGE MAMMOTH BRONZE TURKEYS not related to stock sold previous years. Sadie Litton, Peabody, Kan.

BOURBON RED TURKEYS, PRIZE WIN- ners. Eleven eggs for \$3.00, with directions for raising. Palmer's Poultry Farm, Uniontown, Kan.

TURKEY EGGS—EGGS OF QUALITY. Mammoth Bronze, Narragansett, Bourbon Red, White Holland. \$3.50 per 12. Walter Bros., Powhattan Point, Ohio.

BOURBON RED TURKEYS, BUFF ORP- ingtons, S. C. W. Leghorns, Indian Runner Ducks. These are all from prize winning stock. Eleanor Poultry Ranch, Brighton, Colo.

EGGS FROM MAMMOTH BRONZE TUR- keys, per egg, 35c; 10 for \$3, by parcels post, prepaid. Orders booked and filled as received. Mrs. Iver Christenson, Route 1, Jamestown, Kan.

ANCONAS.

MOTTLED ANCONA EGGS, \$1.50 FOR 15, \$6 per 100. W. Hardman, Frankfort, Kan.

ANCONAS AND 30 OTHER VARIETIES. Booklet free. Erie Smiley, Beaver Crossing, Neb.

ANCONAS—FIRST PRIZE WHEREVER shown. Eggs and baby chicks. Cockerels for sale. W. P. Rocks, \$6 per 100. T. F. Holt, Lawrence, Kan.

ANCONAS—ALL THE REDS AND BLUES at State Show and Hutchinson and sweepstakes special over all breeds at latter place. Eggs, \$2.50 per 15 from pens; \$1 from utility flock. C. K. Whitney, Route 9, Wichita, Kan.

PURE BRED POULTRY

DUCKS

S. C. BUFF ORPINGTON EGGS, \$1 PER 15, \$5 per 100. Mrs. S. T. White, Rose, Kan.

FAWN AND WHITE RUNNER EGGS, \$1 per 15; \$6 per 100. Baby ducks, 25c. Lucy Johnson, Bosworth, Mo.

INDIAN RUNNER DUCKS AND DRAKES, of heavy laying white egg strain. Ray Rhodes, Maize, Kan.

FAWN AND WHITE—RUNNER DUCK eggs, \$1 per 15. Merle B. Peebler, Latham, Kan.

FAWN-WHITE RUNNER DUCK EGGS, \$1.25 per 15. White eggs. Mrs. E. Mills, Sabetha, Kan.

SNOW WHITE PRIZE WINNING IN- dian Runner eggs. Send for catalog. Katie Lusk, Plains, Kan.

BUFF ORPINGTON DUCKS—WHITE eggs. Eggs, \$1.50, 12. Mrs. D. A. Wohler, Hillsboro, Kan.

DUCK EGGS—FROM WHITE INDIAN Runner, \$2 per 15; Buff Orpington, \$2.50 per 15. From splendid stock. Mrs. Cecile McGuire, Pratt, Kan.

DUCKS—MAMMOTH PEKIN AND RUN- ners. Rose Comb Brown Leghorn chickens. Prices right. Satisfaction guaranteed. Oscar Wells, Farina, Ill.

INDIAN RUNNER DUCKS—WHITE AND fawn and white. Eggs, white, \$2.75, 13; fawn and white, \$1.25, 13; \$6.75, 100. Mrs. Annie E. Kean, Carlton, Kan.

PURE WHITE RUNNER DUCKS, BUFF Black Orpington chickens, fancy breeding. Free mating list. J. F. Cox, Route 8, Topeka, Kan.

PRIZE WINNING WHITE INDIAN RUN- ner duck eggs, 15, \$1.50; 45, \$3.75; 100, \$7.50. Buff Orpington Ducks, 15, \$2.45; 45, \$5.10; 100, \$10. Fawn and White, 15, \$1.45; 45, \$2.50; 100, \$5. Light Brahmas, 15, \$1.45; 45, \$2.50; 100, \$5. Poultry book free. Frank Healy, Bedford, Iowa.

WHITE EGG RUNNERS, ENGLISH Pencilled Ducks, from imported stock. Prize winners. Eggs, \$2. Racy type and carriage. "Tom Barron" and Young strain S. C. White Leghorns, \$2.00, fifteen; strain that won at Mountain Grove, Mo., egg contest. Paul Galbreath, West Plains, Mo.

PURE WHITE DUCK EGGS FROM FIS- chel and Ballard strains of White Indian Runners, \$2 and \$1.50 for 15. From Harsh-barger strain of Fawn and White Indian Runners, \$1.50 and \$1 for 15. Write for prices per hundred. Geo. T. Knott, Choctaw, Okla.

PIGEONS.

GOOD HOMERS FOR SALE. MARTIN Glebler, Catherine, Kan.

FULL BLOODED WHITE PLYMOUTH Rocks Homer Pigeons, White Angora Rabbits. 219 Huntoon St., Topeka, Kan.

Bargains in Land

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

Buy or Trade with us—Exchange book free. Bersie Agency, Eldorado, Kas.

FORTY ACRES, 3 1/2 MILES MCALISTER City 15,000; 28 a. tillable, bottom land; 4 a. timber, balance pasture. Fine for fruit, vegetables, poultry and alfalfa. \$22 per acre, terms. Write us about land.

SOUTHERN REALTY CO., McAlester, Okla.

FOR JEFFERSON COUNTY or Northeast Kansas farms, any size, where alfalfa, bluegrass and corn are the staple crops, at from \$60 to \$100 per acre. Write or see. The Harman Farm Agency, Valley Falls, Kas.

WE SELL OR TRADE ANYTHING ANYWHERE. REALTY EXCHANGE CO., NEWTON, KAN.

FORCED SALE—160 acres, 6 miles to German Catholic town, Manhattan, Wichita Co., Kan. All smooth plow land, 2-room house, well, fine water, good barn, fencing, 100 a. in cult., plenty of out range. Fine for stock. Must be sold quick. Only \$8 per acre. No trades. D. F. Carter, Leoti, Kan.

Price on above farm reduced to \$6.25 per acre. Act quickly. D. F. CARTER, Bonded Abstractor, Leoti, Kansas.

Grass for 1,000 Head. We have 12 sections of choice buffalo and bluestem in Pawnee Valley, with abundance of running water, a number good wells and tanks. Best pasture in state. Will rent all or part at very reasonable rate. Call on or address FRIZELL & ELY, Larned, Kan.

ANDERSON COUNTY KANSAS LAND

ANDERSON COUNTY, KANSAS LAND. If you want to buy a well improved farm in this county, priced so you can afford to own it, write me. I have what you want; from 80 to 640 acres in size. Also have some unimproved pasture land for sale. Liberal terms. W. L. WARE, Garnett, Kansas.

WE OWN and offer for sale in this, Jef- ferson County, Arkansas, 1,240 acres of very fine land, being both up and creek bottom lands. This land is 12 miles southwest of this city and on good pike road, one mile from railroad and five miles from the famous Sulphur Springs, which an Interurban railroad is being built to now. The soil is of a deep chocolate loam with clay subsoil. About 100 acres have been cleared and the balance in good timber. We fully believe there is six million feet of good merchantable timber on this tract; of this amount white oak predominates. Good spring water the year around. We have some other great bargains which we will be pleased to offer and make prices with terms.

THE WORTHEN LAND CO. Bank of Pine Bluff Bldg., Pine Bluff, Ark.



SAVE YOUR ALFALFA

Use Equity Metal Stack Covers

They are guaranteed to last for years and will not rust—are made to fit any size stack and cover it down the sides as well as on top—you don't have to build the stack to fit the cover. They are easy to put on, keep on, or take off as desired. They have no corrugations to get mashed out of shape—no keys or bolts to give trouble.

Made of nothing but the best galvanized sheets, and put together with lock-joints so as not to leak. Save their cost the first season. For price list and full particulars, address the

Kansas Metal Granary Co.

434 No. Wichita, WICHITA, KANSAS. We Pay the Freight.

WISCONSIN

Official publications concerning the soils, rainfall and crops of Wisconsin may be had free by writing Wisconsin State Board of Immigration, Madison, Wis. State Capitol 555.

A BARGAIN IN TRADE

\$17,500.00 Stock of General Merchandise to exchange for Western Kansas land worth the money. Ten-room Modern House and beautiful lawn in Boise, Idaho, to trade for western land. Price, \$11,000; mortgage \$4,000. Section of Land in Hodgeman County, Kansas, with some improvements on. Price, \$8,500, clear. Will trade for horses or cattle.

H. B. BELL LAND COMPANY Commerce Bldg., Phone 2, Dodge City, Kan.

40,000 ACRES STATE LAND OPENED FOR SETTLEMENT

On June 17th the State of Wyoming will sell at public auction, in tracts of 160 acres and up, approximately 40,000 acres choice prairie land within one to twelve miles of Cheyenne, the state capital. Terms, one-tenth cash and balance eighteen years at four per cent annual interest. Very low round trip excursion rates will be available for those desiring to attend this sale. For sectional map showing location of the lands and full particulars, address

S. G. HOPKINS, State Land Commissioner, Capitol Building, Cheyenne, Wyo.

FOR SALE OR TRADE. 240 Acres. If on the lookout for a land deal, write us about it. We have a lot of bargains for cash. Send for list.

KIBWAN LAND CO. West Plains, Howell County, Missouri.

ANY SIZED Arkansas farm, no rocks, hills or swamps, all tillable, general farming and fruit, \$1.50 per acre down, balance 20 years, 6 per cent. Crop failures unknown. E. T. Teter & Co., Little Rock, Ark.

FIELD NOTES

Otey Claims Sale Date. W. W. Otey & Sons of Winfield, Kan., are changing copy in their ad which appears in this issue. They write us that they have 40 head of sows and gilts of the best blood lines and individuality. They begin breeding in May for private sale and for their August public sale. They are claiming August 20 as the date for this sale and expect to have an offering fully equal to that of their spring sale.

F. W. Lavelock's Hampshires. We wish to call our readers' attention to the new ad of F. W. Lavelock's Hampshires at Princeton, Kan. This herd is richly bred, representing the blood of the great brood sows, Charly 8674, sire Erlanger 1039, Bell of Smithville 2414, Lady Lavelock 2854, Missouri Bell 7th, Missouri Bell 3d, and other good sows. Mr. Lavelock has saved about 150 spring pigs. They are sired by the following boars: Wilcox's Model 4781, he by Duke of New Castle, Joe Bowers and Kansas Model 1583—three extra good boars. Mr. Lavelock has a number of extra good fall gilts bred for late summer and fall litters that he will sell; also a few tried sows and a few late winter boars. All the hogs are in fine condition and are well grown out. They are the very best to be found, both from an individual and breeding standpoint. Please look up ad and write for prices. Kindly mention Kansas Farmer when you write.

Big Sale of Dairy Cows. Attention is called to the dispersion sale advertisement of J. A. Jamison and J. M. Gable, of Lansing, Kan. On Wednesday, May 6, they will sell a choice lot of high-grade dairy cattle. The offering will consist of 21 head of Holstein cows, 11 head of Jersey cows, and 23 head of yearling and two-year-old Holstein heifers. The entire offering is strictly dairy-bred. The cows are all in milk, most of them fresh within the last sixty days. They will also sell two pure-bred herd bulls, Sir Hesperides Skylark 10439, a two-year-old sired by Skylark Jewel Wayne 44088, and Prince Hadria Netherland De Kol 94991 sired by Rockdale Viscount De Kol 51369. This will be a splendid opportunity to buy dairy stock. Messrs. Jamison and Gable are quitting the dairy business and the entire offering must sell regardless of price. They will also offer three jacks of serviceable age. If interested in dairy stock, look up their ad in this issue and arrange to attend this sale.

Value of Our Building Stone.

The value of our building stone cannot be over-estimated. From time immemorial stone has been used in architecture and has proven more strong and durable than any other material. We, who have not travelled extensively need only to look at pictures in books of ancient history to confirm this fact.

Geology teaches us that red sandstone was first, then came granite, and last of all, limestone. Here in the Middle West we have limestone—white, gray and blue—which has proved superior to any other within our reach; and here in Eastern Kansas we have an abundance of limestone of excellent quality as durable as the earth itself; and now since we have cement so cheap that all can afford to use it for mortar, we can build walls of stone imbedded in cement and sharp sand mortar, with equal durability.

We learn from modern writers on geology that the mortar used in ancient architecture was superior to any kind now known, and we consider it one of the lost arts. Certain architects of our day claim that we have discovered in cement and mortar used in ancient times. Nevertheless, the cement we have in America is not the best in the civilized world. Somewhere in the Orient there is an island named Portland from which Portland cement is made and distributed to all parts of the world; and that has proved superior to any known in our time. All other cements bearing the name are counterfeit. Portland cement comes over the Atlantic in waterproof lined barrels and we never found it cheaper than \$5 per barrel. Yet the cement we have in this locality is very good and far superior to lime. Manufacturers of American cement are inclined to over-estimate its value and excellence compared with first class stone work.

A contractor recently built a small arch bridge spanning a ravine west of Carbondale, of reinforced concrete, at a cost of \$170. Stone masons had offered to finish a first class stone arch bridge instead, for less than \$100, but the township board seemed to consider stone only fit to break and mix in concrete.

In Overbrook I saw a concrete arch cellar that cost \$130 and the walls were only six inches thick. A mason would have built one of the same size for less than \$100 and furnished the material and labor; and his walls of stone laid in cement mortar would have been no less than 16 inches in thickness.

In this immediate vicinity we have on nearly every farm an old stone fence condemned, simply because it was never built, but only ricked up loose by some common laborer, and consequently it is merely a pile of stone, a retreat for vermin. There stands today along the roadside of Tomson's Stock Farm at Towhead, a line of stone fence, straight, smooth and high, which was built by a mason in the spring of 1874, and that wall, more than 60 rods in length, has never been rebuilt or repaired. Mr. Tomson assures us that he would not exchange it for any other kind of fence.

Now, while we contemplate building new houses, barns, garages, bridges, terraces, cellars and cisterns, that old pile of stone you call fence is good material to us. We can save fully one-third the cost of building by using the stone from that condemned stone fence and make it superior to concrete work.

Now that we have cheap cement for mortar our masons can build a better wall of stone than formerly. Nothing in modern architecture is stronger or prettier than a stone arch, and no kind of cellar is so clean and pure as a stone arch cellar. The stone ought not to be plastered over, but only pointed neatly. Nothing on earth is sweeter than earth itself and if the earth bank would stand, no walls would be needed. On the east front of our school house is a stone arch and stairway pointed and finished in cement, costing less than wood and certainly far superior to a wooden structure.—J. T. VAN DERLIP, before Wakarusa Grange.

Classified Advertising

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

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

HELP WANTED.

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

WANTED—FARM SPECIALTY SALESMEN. Our men last season cleared from \$50 to \$100 weekly. Bain Bros. Mfg. Co., Cedar Rapids, Iowa.

MOTORMEN, CONDUCTORS, INTERURBANS, \$75 monthly. State age. Experience unnecessary. Qualify now. Application, details free, Box M, care Kansas Farmer.

WANTED—AGENTS TO SELL PATENT CLOD FENDERS FOR CULTIVATORS. Easy seller and big profits. Necessary on every farm. Write for terms now. Gutz Mfg. Co., 507 Montgomery Bldg., Milwaukee, Wis.

YOUNG MEN—WANTED, 50, TO JOIN US IN THE LIVE STOCK BUSINESS. New plan. Particulars free. Capital required. State age occupation, resources, married or single. Address Willow Creek Live Stock Co., Janet, Wyo.

FREE ILLUSTRATED BOOK TELLS OF about 300,000 protected positions in U. S. service. Thousands of vacancies every year. There is a big chance here for you, sure and generous pay, lifetime employment. Just ask for booklet 8-809. No obligation. Earl Hopkins, Washington, D. C.

\$65 to \$150 MONTH PAID MEN AND women in U. S. Government positions. Life jobs. Thousands of appointments coming during 1914. Common education sufficient. "Full" unnecessary. Write today for free list of positions now available. Franklin Institute, Dept. F 82, Rochester, N. Y.

YOUNG MAN, WOULD YOU ACCEPT and wear a fine tailor made suit just for showing it to your friends? Or a Slip-on Raincoat free? Could you use \$5 a day for a little spare time? Perhaps we can offer you a steady job. Write at once and get beautiful samples, styles and this wonderful offer. Banner Tailoring Co., Dept. 731, Chicago.

LOCAL REPRESENTATIVE WANTED.—Splendid income assured right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. All or spare time only. This is an exceptional opportunity for a man in your section to get into a big paying business without capital and become independent for life. Write at once for full particulars. National Co-Operative Realty Company, L-473 Marden Building, Washington, D. C.

REAL ESTATE.

WANTED—GOOD FARM, WELL SITUATED. Owner only. Give price and description. Address Adrian, Box 754, Chicago.

REAL ESTATE WANTED—SELL YOUR property quickly for cash, no matter where located. Particulars free. Real Estate Salesman Co., Dept. 77, Lincoln, Neb.

IMPROVED 200 ACRES, HALF BOTTOM land in alfalfa, mile from town. \$50 per acre, terms. Delaney & Carey, Lee Bldg., Oklahoma City.

THE STATE BANK OF OAKLEY, KAN- sas, has a good section of land in Gove County, Kansas, all in prairie and fenced. Price, \$4,000. Henry Hagen, Arapahoe, Col.

FOR SALE—160 ACRES CHOICE PAS- ture land, fenced, with never-falling stream, in Northwest Marion County. See J. G. Hill, 421 South Main St., McPherson, Kan.

FREE GOVERNMENT LAND—NEAR 500,000 acres in Arkansas now open to homestead entry. Guide book, with list, laws, etc., 25c. Township map of state, 25c additional. L. E. Moore, Little Rock, Ark.

175 ACRES, 40 ACRES BOTTOM LAND, 45 cultivated, house and barn, 15 acres meadow, plenty of spring water, 3 miles railroad. Price, \$2,000; easy terms. Ozark Realty Company, Marshall, Ark.

FOR SALE—FIVE SECTIONS OF FIRST- class land with good buildings, close to town and schools. \$2,500 cash, balance on long time. Apply to Harry O'Neill, McKenzie, North Dakota.

FREE COPY OF REAL ESTATE BULLE- tin describing over 100 farm bargains and thousands of acres unimproved land in Minnesota. Akerson, Drawer 18B, Lindstrom, Minn.

FOR MISSISSIPPI VALLEY BOTTOM lands, improved or timbered, as fertile and as cheap as can be found anywhere, write M. A. Tucker, McGehee, Ark. Lands now being drained and prices advancing rapidly.

KANSAS CITY BUSINESS PROPERTY, 150x50 feet, corner Fifth and Troost Ave., must be sold to settle an estate. A rare bargain in the fastest growing city in the West. Address K. C. Property, care of Kansas Farmer.

OREGON STATE PUBLICATIONS FREE. Oregon Almanac and other official books published by State Immigration Commission, telling of resources, climate and agricultural opportunities for the man of moderate means. Ask questions—they will have painstaking answers. We have nothing to sell. Address Room 54, Portland Commercial Club, Portland, Ore.

VICTORIA, AUSTRALIA, WANTS SET- tlers. Special inducements offered by State Government which owns lands, water, railways and free schools. Excellent climate, resembles California; no extreme heat or cold. Small deposit and 3 1/2 years for purchase of lands, adapted to every kind of culture. Citrus fruits, apples and pears; wheat, corn, alfalfa, sugar beets; dairying, hog raising, etc. Ample markets. Exceptional opportunities for the man of moderate means. Reduced passages for approved settlers. Free particulars from F. T. A. Fricke, Box 34, 687 Market St., San Francisco.

REAL ESTATE.

BIG LAND SALE

BIG LAND SALE

CHICAGO TITLE & TRUST CO., AS trustee for 54,000 acres irrigated land, all within 6 to 40 miles from Denver, Colorado, is closing it out in tracts, 40 acres and upwards, on very easy terms—both raw land and improved farms to select from. Sure profits in alfalfa, hogs and dairying, and no crop failures. Near big city markets, good roads, schools, churches; ideal climate; beautiful view of Rocky Mountains. Truck farming very profitable. Come and see for yourself or send for maps. Agents wanted. Chicago Title & Trust Co. (Trustee), 722 Ideal Bldg., Denver, Colo.

FOR SALE—GOOD 160-ACRE ALFALFA farm, well located. Price, \$6,000. Write for full description. Chas. O. Bird, Atwood, Kan.

FOUND—320-ACRE HOMESTEAD IN settled neighborhood, fine farm land; not sand hills. Cost you \$200 filling fees and all. J. A. Tracy, Kimball, Neb.

A VANISHING OPPORTUNITY—FOR sale, California farm lands and stock ranches. For particulars address Maguire & Nelson, 378 Wilcox Bldg., Los Angeles, Cal.

FARMS WANTED—WE HAVE DIRECT buyers. Don't pay commissions. Write describing property, naming lowest price. We help buyers locate desirable property free. American Investment Association, 43 Palace Bldg., Minneapolis, Minn.

BARGAINS IN WISCONSIN FARMS. 422 acres in Oneida County, 2 1/2 miles from railroad station. Fine grazing and hay land, also good for grain, corn and potatoes. 180 acres under cultivation. House and barn will be sold cheap to clear up an estate. 240 acres in Fond du Lac County. Every foot the very best soil, good buildings and first-class stock. Will be sold cheap if taken at once. Other good farms anywhere in the state of Wisconsin. Write or call on Conrad Thlemann, 323 Germania Bldg., Milwaukee, Wis.

CATTLE.

CALVES—RAISE THEM WITHOUT milk. Booklet free. D. O. Coe, Topeka, Kan.

GRADE HOLSTEIN CALVES, BOTH sexes, for sale. Arnold & Brady, Manhattan, Kan.

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

FOR SALE—ONE REGISTERED NINE- months-old Jersey bull. Bangalore Ranch, H. Hau, Owner, Spearville, Kan.

JERSEY BULL CALF, ELIGIBLE TO registry. Price, \$35. Harry Schmidt, Route 2, Tescott, Kan.

FOR SALE—DOUBLE STANDARD Polled Durham bulls of serviceable ages with size and quality. C. M. Albright, Overbrook, Kan.

RED POLL BULLS AND HEIFERS, 6 to 18 months; best of breeding. Only a few and priced to sell. T. G. McKinley, Junction City, Kan.

FOR SALE—20 HIGH GRADE HOL- stein cows, just fresh. Heavy springers. Ten heifer calves; 4 registered bull calves two months old. Clyde Girod, Towanda, Kan.

FOR SALE—YOUNG REGISTERED HOL- stein Friesian bulls from high record A R O. cows and sired by the Butter-bred bull, Canary Butter Boy King No. 70508, which weighed 2,300 pounds at 3 years and 11 months. Harry W. Mollhagen, Bushton, Kan.

HOLSTEINS—IN THE NEXT 60 DAYS I will sell 400 high grade, De Kol bred cows and heifers, as follows: 100 bred 2-year-olds, bulk springing bag to freshen soon; 50 developed, heavy milking cows. A few registered and some 15-16 bulls ready for service. H. L. Dunning, Genoa Junction, Wis.

FOR THE NEXT 90 DAYS WE ARE DIS- posing of all our Holstein calves, from heavy producing high grade Holstein cows and a very fine registered Holstein sire. The calves are from 4 to 6 weeks old, weaned, beautifully marked, strong and vigorous. Either sex, \$17, crated for shipment to any point. If you wish to get a start with good ones, send your order at once. Whitewater Stock Farm, Whitewater, Wis.

HORSES AND MULES

SHETLAND PONIES—WRITE CHARLES Clemmons, Coffeyville, Kan.

FOR SALE—SEVENTEEN GOOD YOUNG work brood mares; were bred to Jack. W. F. Lemmon, Peru, Kan.

REGISTERED PERCHERON STALLION, foaled April 24, 1912. Extra good. Might exchange for a pair of large young mules or horses. G. E. Clark, Topeka, Kan.

SILOS.

WE WANT FARMER AGENTS TO SELL our silos. Sixty tons, \$97.50, your station. Can't fall down nor blow down. In actual use four years. Fully guaranteed. None better at any price. Get literature. Bonita Farm, Raymore, Mo.

THE STRAY LIST

IRA WHIPPLE, COUNTY CLERK, Greenwood County. Taken Up—By Adrain St. Clair, on November 1, 1913, one steer, red, weight 1,000 pounds; 4 on left thigh. O on left side of neck. Appraised value, \$35.

TREES, SEEDS AND PLANTS.

EXCELLENT BOONE COUNTY WHITE seed corn, \$2.35 bushel, graded. J. B. Hunt, Oswego, Kan.

IMPROVED BIG CREEPING HARDY Bermuda. Popular prices. "Bermuda" Mitchell, Chandler, Okla.

KANSAS GOLD MINE PURE BRIGHT alfalfa seed, cream of the crop. Fancy feterita. Write F. D. De Shon, Logan, Kan.

FETERITA SEED, TESTED BY GOV- ernment. Graded, guaranteed pure. \$3.00 cwt. A. C. Buchanan, Lubbock, Texas.

CHOICE FIRE-DRIED GOLDEN GLOW and Silver King seed corn. Inspected and guaranteed by Wisconsin Experimental Association, Gartland Farm, River Falls, Wis.

I GUARANTEE 95 PER CENT GERMINA- tion. Reid's Yellow Dent and Iowa Silver Mine seed corn. This corn is of a splendid type. Paul Rohwer, Waterloo, Neb.

EARLY TRIUMPH AND NANCY HALL Sweet Potato, succeeds anywhere. One hundred plants delivered, 50c. Prof. Waughel, Plant Grower, Uptonville, Ga.

SEED CORN—BOONE COUNTY WHITE, Bloody Butcher. Extra quality, ear or shelled, \$2 per bushel. Ask for samples. A. M. Brandt, Severy, Kan.

FOR SALE—WHITE AND YELLOW VA- rieties of seed corn. Sold on approval. Write for circular. S. W. Anderson, Greenville, Va.

CHOICE FETERITA HEADS, SELECTED before harvesting; short stems. Ten pounds and over, 10 cents pound, parcels post. H. Emerson, Route 1, Enid, Okla.

PURE FETERITA SEED A SPECIALTY, test 96 to 99. Threshed, re-cleaned or in head, \$2.50 per bushel. Also kafir, Manhattan strain. Send for pamphlet. H. M. Hill, Lafontaine, Kansas.

CHOICE BLACK-HULL WHITE KAFIR, sacked, \$1.50 per bushel, our track. Seed tested by Prof. Roberts of Kansas Agricultural College, shows 93 per cent germination. Hoops Grain Co., Woodward, Okla.

SWEET POTATO PLANTS—NANCY Hall Triumph, Providence and Porto Rico Yam. Price, \$1.75 per 1,000. Full instructions for keeping sweet potatoes all the year around given free with every order. T. K. Godbey, Waldo, Fla.

FOR SALE—CHOICE FIRST CLASS RE- cleaned feterita seed at \$4 per cwt., sacked f. o. b. Hutchinson or Liberal, Kan. Germination excellent. Our supply is limited. Place your orders before it is exhausted. The Liberal Elevator Co., Hutchinson, Kan.

FOR SALE—700 BUSHELS REID'S YEL- low Dent, and several hundred bushels Boone County White seed corn, 1912 crop. Guaranteed to grow. Shelled and graded at my crib, \$1.50 for shipping, \$1.75 in the ears, 25c extra. Jacob Hauptli, Route 2, Glen Elder, Kan.

PATENTS.

PATENTS PROCURED OR FEE RE- funded. Official drawings free. Send sketch for free search. Patent Exchange, Jordans Bldg., Washington, D. C.

SITUATION WANTED.

SITUATION WANTED—YOUNG MAN student at the University of Missouri wants position on farm for the summer. Unexperienced but willing to learn. Reference furnished. D. J. Mallin, Columbia, Mo.

AUTOMOBILE ACCESSORIES

AUTOMOBILE OWNERS—FREE CATA- log. All supplies, wholesale prices. State if Ford owner. Consumers' Auto Supply Co., Dept. B, Chicago.

WANTED—TO BUY.

WANTED—TWO SHETLAND PONIES. Give age, description and price. Box 15, Topeka, Kan.

WANTED—AN OLD TWINE BINDER, suitable for Junk. Jesse Persley, 325 Kansas Ave., Topeka, Kan.

MISCELLANEOUS.

CLEANING, PRESSING, DYEING, WORK guaranteed. Manhattan Cleaners, 609 Jackson, Topeka.

NEW CYCLO BICYCLES, COMPLETE with coaster brake. \$21.50. J. C. Harding Co., Topeka, Kan.

FOR SALE—TELEPHONE EXCHANGE, over 200 telephones. Price, \$8,800. No trade. Part cash, balance terms. Address Lincoln Newsom, Scott City, Kan.

DOGS.

COLLIES, AIREDALES, TERRIERS— Send for list. W. R. Watson, Oakland, Iowa.

PURE-BRED SCOTCH COLLIE PUPPIES ready for shipment. M. L. Dickson, Englewood, Kan.

HEDGE POSTS.

ONCE IN A LIFE TIME IS AS OFTEN as you have to set posts if you use hedge posts. We have five carloads for sale. Want a car? Warner Bros., Melvern, Kan.

BEE SUPPLIES.

FOR SALE—BEE SUPPLIES. ROOT'S goods. Send for catalog. O. A. Keene, 1500 Seward Ave., Topeka, Kan.

HOGS.

IMMUNE O. I. C. FIGS, WEANED, large, growthy; pedigree furnished; \$10.00 up. Ackerman Stock Farm, Silwell, Kan.

POLAND CHINA BOARS, SPOTTED AND black; big-type Orange Looks, Grand Leaders and Big Spots; weight around 200 lbs. \$25 on board the car here. Hall & Rapp, Rochepot, Mo.

FOR SALE—PURE-BRED DUROCS, AM offering the best lot of fall boars I ever raised. Ready for service. By G. M. Tat. Col. No. 111397 and Billie's Best No. 124681, and from sows strong in Tattarax and Ohio Chief blood. All eligible to registry. Prices reasonable. John Barthold, Jr., Partridge, Kan.

TOO LATE TO CLASSIFY

CLOVERDALE HERD OF HAMPSHIRE. 150 Spring Figs.



GILTS RAISED ON THE LAVEROCK FARM. Booking orders to ship at weaning time. They are rich in the blood of the great brood sows, Charity, Lady Lavelock Mary, Mo. Belle 7th and Sally 2d, and are sired by the noted boars, Widow's Model, Joe Bowers and Kansas Model. Price, registered, crated, one, \$20; two, \$35; three, \$50. Also a few older gilts and boars for sale. T. W. LAVEROCK, Princeton, Kansas.

WALNUT CREEK STOCK FARM.

Large English Berkshires

Special Offering. Choice bred sows and gilts for August and September farrow. Choice pigs sired by prize winning boars, either sex, 10 to 16 weeks old, non-related. Price, registered, crated, f. o. b. here, one, \$20; two, \$35; three, \$50. H. E. CONROY, Nortonville, Kansas.

BIG-TYPE BOARS AND GILTS.

July, August, September farrow. Can breed gilts to suit purchaser. Boars ready for service. Will book orders for spring and Special Offering. Choice bred sows and Priced right. Write. DIETRICH & SPAULDING, Richmond, Kan.

FIELD NOTES

G. C. WHEELER
Manager Live Stock Department.

FIELD MEN.

O. W. Devine.....Topeka, Kan.
W. J. Cody.....Topeka, Kan.

PURE BRED STOCK SALES.

Aberdeen Angus.
April 28—American Aberdeen Angus Breeders' Association, Spring Bull Sale, Omaha, Neb. Chas. Gray, Secretary, Union Stock Yards, Chicago, Ill.

Jersey Cattle.
Sept. 22—H. C. Johns, Carthage, Mo.

Durocs.
Aug. 20—W. W. Otey & Sons, Winfield, Kan.

Duroc Jerseys, Polands and Berkshires.
Feb. 9-10—Agricultural College, Manhattan, Kan.

Poland Chinas.
May 5—Roy Johnson, South Mound, Kan. Sept. 5—J. E. Willis, Prairie View, Kan. Sale at Downs, Kan.

Oct. 20—U. S. Byrne, Saxton, Mo.
Oct. 21—H. B. Walter, Effingham, Kan.
Oct. 22—H. C. Gramer, Lancaster, Kan.
Oct. 23—Walter Hildwein, Fairview, Kan.
Oct. 28—George S. Hamaker, Pawnee City, Neb.

Roy Johnson's Hog Sale.
Don't fail to attend the Poland China sale at South Mound, Kan., May 5. Mr. Johnson has a good offering. These will be bargains for all. If you cannot attend, write or wire O. W. Devine, care of Mr. Johnson, to buy for you.

As the Result of a Small Ad.

Mrs. M. H. Spooner, of Wakefield, Kan., one of the live breeders of S. C. Buff Orpingtons, writes: "Enclosed find copy of ad. As a result of my last \$1.60 ad in Kansas Farmer I shipped an order of 50 pullets and four male birds to one purchaser, which, with several smaller lots, made a total of \$104. This could have been doubled if I could have filled the orders. I had to return money long before the inquiries stopped coming. The sale of eggs and baby chicks brought the total to \$294 from 45 hens." Mrs. Spooner holds the record for the largest shipment of mature pure-bred poultry from her section of the country, which shows the popularity of her strain of S. C. Buff Orpingtons.

Walnut Creek Stock Farm Berkshires. Attention is called to the ad of Mr. H. E. Conroy of Walnut Creek Stock Farm, Nortonville, Kan., and owner of one of the great herds of Berkshire hogs. Walnut Creek Stock Farm herd is headed by three great herd and stock boars, namely, Duke's Rival Champion 151389, Robinhood Premier 2d 140430, Silver Tips Master 2d 175522, and consists of 30 great bred reserve brood sows. Some of these are daughters of the grand champion boar and grand champion sow of the great World's Fair at St. Louis, 1904. Also consists of daughters and granddaughters of Masterpiece 77000, perhaps the greatest known boar of any breed of swine. This great herd consists of 200 head of Berkshires at present, and have a great number of fall and spring pigs of both sexes offered for sale. This herd has won wherever shown, and Mr. Conroy expects to have a great herd to be shown at the various state fairs of the corn belt during the fall of 1914. Look up his card and write him your wants. Please mention Kansas Farmer.

Dietrich & Spaulding Offering.

With this issue the well known firm of Dietrich & Spaulding, at Richmond, Kan., is starting an ad. This firm is one of the oldest Poland China breeders in Kansas. They have sold hogs to breeders in almost every state. They have built a record of growing the useful kind of hog, one that will win at the shows and develop quickly and make money for the farmer and breeder. Dietrich & Spaulding are constructive breeders. They know how to mate for a certain type, having shown Poland Chinas at all the leading fairs for the past 25 years and always winning a good share of the premiums. They now offer for quick sale a number of big, stretchy boars ready for use, sired by Gold Mine No. 73389. Gold Mine was third as aged boar at American Royal, 1912. He weighed 690 pounds at 17 months old. He is one of the best feeders on the farm and has proven one of the best sires. A number of these boars are out of our best sow, Hutchess; a number of her pigs have gone to head herds and her pigs always win in the shows. Please read ad and write your wants. You will make no mistake if you buy either a boar or bred gilt from this firm. They own a good herd of Poland Chinas. Kindly mention Kansas Farmer when you write.

POLAND CHINAS

GRANER'S IMMUNE FALL BOARS

Twenty extra choice big-type fall boars, tops from my entire crop, mostly sired by Moore's Halvor, my big Iowa bred boar. Others by Sampson Ex. and Melbourne Jumbo, out of big mature sows. \$25 each while they last. Send check with first letter. Fully guaranteed. Also one pure Scotch Shorthorn bull, solid red color, 12 mos. old. H. C. GRANER & SON, Lancaster, Kansas.

CEDAR LAWN
POLAND CHINAS

Choice September boars and gilts sired by the big boar, A's Big Orange, out of strictly big-type dams. All immune. Also Shorthorn bulls. S. E. ANCOATS, Clay Center, Kansas.

SPOTTED POLAND CHINAS.

Will book orders for 15 gilts to be bred last of May, for early fall litters, ten at \$40, five at \$50 each. These gilts will be bred to Reputation, that H. L. Faulkner says is the largest hog for his age he ever saw. A few good fall boars left. Jersey Cattle: Young bulls, \$50; bred heifers, \$150. THE ENNIS FARM, Morine Station, Mo. (Thirty miles south of St. Louis.)

Choice Most Big-Type Poland Chinas. Choice lot of sows and gilts for sale, bred for April and summer litters to the three times grand champion boar, Smuggler \$88912, A178859, and Logan Price. Booking orders for spring pigs in pairs or trios. Prices reasonable. OLIVIER & SONS, Danville, Kansas.

PAN LOOK HEADS HERD. Full boars and gilts sired by him for sale. Be your own judge. Out of Expansion bred dams. JAS. ARKELL, Junction City, Kan.

FOLEY'S BIG POLAND GILTS FOR SALE, bred to my great young boar, The Giant. Also one extra choice spring boar and fall boars ready to ship. J. F. FOLEY, Oronoque, Norton Co., Kansas.

Merten'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.

Faulkner's Famous SPOTTED POLANDS. We are not the originator, but the pre-Old Original Big-Boned Spotted Poland. Write your wants. Address H. L. FAULKNER, Box K, Jamesport, Mo.

A ORANGE AGAIN. Heads our Poland Chinas. Choice big fall boars for sale, also 50 spring pigs. HUBERT J. GRIFFITHS, Clay Center, Kan.

SMITH'S BIG-TYPE POLANDS. A choice lot of fall pigs, either sex. Strictly big-type breeding. High-class individuals, priced to sell. AUSTIN SMITH, Dwight, Kansas.

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

KING OF KANSAS FALL BOARS. Immune and out of big dams. Choice individuals, \$25 to \$35 each. They are bargains. J. L. GRIFFITHS, Riley, Kansas.

BERKSHIRE HOGS



Special Offering
Sutton Farm
Berkshires

200 HEAD

40 Boars, 20 Bred Sows, 40 Open Sows, 90 Fall Pigs, All at Attractive Prices.

SUTTON FARM LAWRENCE KANSAS

BERKSHIRE PIGS

Choice pigs, 10 to 16 weeks old, either sex. Sired by Robin Hood, Premier 2d, or Adam, a son of Rival's Lord Premier. Nothing but the very choicest specimens shipped. Price, registered, crated, F. O. E. here, one, \$20; two, \$35; three, \$50. W. J. CRIST, Oawale, Kan.

SEND FOR BOOKLET, "PROFITABLE Poultry Selling," issued by Kansas Farmer. Free for the asking to anyone interested in poultry. A post card request will bring the booklet by return mail. Kansas Farmer, Topeka, Kan.

OHIO IMPROVED CHESTERS

Crystal Herd O. I. C's

Headed by Frost's Buster 29745 by Thea 30442. Some choice August boars by this great sire of prize winners. They are strictly high class and priced right. Also booking orders for February pigs by illustration and out of Frost's Buster dams. Get in early and get a prize winner. DAN WILCOX, Cameron, Missouri.

FANCY O. I. C. PIGS, \$15 A PAIR. HARRY W. HAYNES-MERIDEN, KANSAS.

SHORTHORN CATTLE

LOOKABAUGH'S SHORTHORNS

At private sale. Six or nine months' time. 22 Scotch. Young heifers and bulls, \$350 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 blood. Over 200 head from which to select. If you cannot come, write. H. C. LOOKABAUGH, Wagon, Elba County, Oklahoma.

Thirty-five
Shorthorn Bulls

Sixteen months to two years old. Pure Scotch and Scotch topped. Sired by Star Goods and Victor Orange, two great bulls. These bulls are from my best cows. They are large and well developed and in good condition, fit to head good herds. Will sell one or a carload. Also a few cows and heifers. 300 head in herd. Come and see them. Prices reasonable. HENRY STUNKLE, Peck, Kansas.

Pearl Shorthorn Herd

Good strong young bulls ranging from 4 to 11 months old. Red or roans of Scotch and Scotch-topped breeding. Herd located at Pearl, Dickinson County. Can ship over Missouri Pacific, U. P., Rock Island or Santa Fe. Address mail to Abilene, Kan.

C. W. TAYLOR
Abilene, Kansas

CHOICE SHORTHORN BULLS

One herd bull, New Goods, by Good News, by Choice Goods. Twenty-month-old bull by New Goods out of a Victoria cow, a full sister to Gallant Knight's Heir. Three younger bulls for sale, 10 and 12 months old. A few good heifers. Prices reasonable. JOHN REGIER, Whitewater, Kansas.

TENNEHOLM SHORTHORNS

For Sale—Five young bulls, the oldest 14 months, the youngest 7 months old. Sired by Royal Gloster 2325681 and Col. Hampton 353998, from our best cows. Beefy, rugged, strong-boned and well-grown; best of breeding. Some of them fit to head good herds. A few high-class heifers, Scotch and Scotch-topped, will be priced right. Price on bulls, \$100 each. E. S. MYERS, Chanute, Kansas.

BULLS FOR SALE

SIX SHORTHORN BULLS—Two 14 months old, red and roan; three coming 2-year-olds, red; and one coming 3-year-old, red. These are good bulls. Price, \$80 to \$150 per head. In fine condition. These are bargains. Also have 50 registered Hereford bulls for sale. SAM DRYBREAD, ELK CITY, KAN.

CHOICE SHORTHORN BULLS

Two at \$125, one at \$150. Big, smooth, even-fleshed, old enough for good service. Priced for quick sale. G. A. LAUDE & SONS, ROSE, KANSAS.

Short Horn Heifers

for sale. A few good ones bred. Price, \$125 each. Also large type Poland China September pigs, either sex, \$20 each. JEWELL BROS., Humboldt, Kansas

CHOICE SHORTHORN BULLS AND HEIFERS

Large beefy-type Shorthorns, extra in quality; reds and roans, richly bred, blood of imported Collynie, imported Mariner and Captain Archer. H. M. HILL, Lafontaine, Kansas.

RIVERSIDE SHORTHORNS.

Clipper Model 386439 by Orange Model 317228, out of Crestmead Cicely 2d, at head of herd. Herd cows representing the best Scotch families, Orange Blossoms, Butterflies and others. H. H. HOLMES, Great Bend, Kansas.

SHORTHORNS FOR SALE.

Several good coming yearling bulls and a number of heifers of various ages, from the Crestmead herd, which numbers 100 head, all Scotch of popular families. W. A. BETTERIDGE, Pilot Grove, Cooper County, Missouri.

Dual Shorthorns, Hornless. 541½ pounds butter sold 1911. No calf tasted skim milk. Infant male calves. J. H. Walker, Lathrop, Mo.

HAMPSHIRE HOGS



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



ATTRACTIVE PRICES. Bred gilts and spring boars by Hillwood Jack by Earlanger. Fall pigs, either sex, by Medora John and Hillwood Jack. F. C. WITKOFF, Medora, Kansas.

Registered Hampshire Hogs

For sale, both sexes. Choice belting and type. Priced reasonable. E. S. TALLFERR, Route 2, Russell, Kan. Shipping point, Waldo, Kan.

BRED GILTS, serviceable boars, January and February pigs. Best breeding, well marked. Singly, pairs and trios. Satisfaction guaranteed. Prices reasonable. S. E. SMITH, Route 5, Box 18, Lyons, Kan.

SHORTHORN CATTLE

JERSEY CATTLE.

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. H. BANKS, Independence, Kan.

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. B. LEE SHAWHAN, Lees Summit, Mo.

REGISTER OF MERIT JERSEYS.

Offer a fine young cow in milk and bred to Oakland's Sultan for \$250. Also a grand daughter 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 Gamboe Knight. B. J. LANSBOTT, Holton, Kansas.

GREAT JERSEY BULL YEARLING

Out of 45-pound cow, Golden Fern's Lad. Flying Fox and Silverline Lads breeding. He cannot be duplicated for price asked. Write for price and description. B. A. KRAMER, Washington, Kansas.

FOR SALE—Five bulls, from two to eighteen months; solid light fawn, close up to Forfarshire and Blue Belle. Boy, half brother to Noble of Oaklands, the \$15,000 bull. Few young cows. S. S. SMITH, Clay Center, Kansas.

BENTER JERSEY CATTLE.

Bull calves all sold except some very young ones. Offering three-year-old herd bull and yearling from imported cow; also few non-related cows. Leona, Kansas. E. L. M. BENTER.

REGISTERED JERSEYS—OXFORD LAD. Eminent bull calf, \$28. Grand Fern Lad bld, \$65. Choice cows, \$110 to \$125. F. J. SCHERMAN, Route 8, Topeka, Kan.

You will find a lot of bargains on Kansas Farmer's Classified Advertising Page this week. Don't fail to carefully read that page.

DUROC JERSEYS

TATARRAX HERD DUROCS

Some choice fall boars ready for service by Tatarrax and G. M.'s Tat. Col. Price reasonable. C. L. BUSKIRK, Newton, Kansas.

DUROC BOARS

High-class Duroc boars ready for service. Best of blood lines. Big, easy feeding kind, immunized. Prices reasonable. Write postal for prices and descriptions. BOYS' INDUSTRIAL SCHOOL, Topeka, Kan.

Good Enough Again King 35204, the sensational grand champion of Kansas State Fair, 1913, heads our great herd. Forty sows and gifts for sale. W. W. OTEY & SONS, WINFIELD, KAN. THE MEN WITH THE GUARANTEE.

BELLAIRE DUROC JERSEY HERD. Immune boars for sale. Orders for immune gilts to be bred December and January to my two best herd boars. Also September pigs, all immunized, double treatment. N. D. SIMPSON, Bellaire, Kan.

50—SUMMER DUROCS—50

Both sexes, rich breeding and well grown out. \$20 for choice. Pair for \$35. Trio, \$45. Here is the opportunity for the beginner. Write for description. M. M. HENDRICKS, Falls City, Nebraska.

BON ACCORD DUROCS

Choice September boars, also one fancy April boar by Successor and out of the grand champion sow, Model Queen. LOUIS KOENIG, Solomon, Kansas.

FANCY DUROC BOARS AND GILTS. Fall boars by J. R.'s Col. by Graduate Col., out of best sows. Choice lot of gilts by J. R.'s Col. bred for June litters to Gold Medal. Priced for quick sale. J. R. SMITH, Newton, Kan.

DUROCS OF SIZE AND QUALITY. Immune summer and fall boars and gilts sired by B. & C.'s Masterpiece, he by R. & C.'s Col. and out of Tatarrax and Ohio Chief dams. Choice individuals. Also a choice bred sow sired by Good Enough Again King. Prices reasonable. JOHN A. KEED, Lyons, Kansas.

DUROCS Summer and Fall Boars, sired by Joe's Pride 118467 and Monarch's Model 129777. Also a few bred gilts by Joe's Pride and bred to Royal Climax. Will sell or trade Monarch's Model for good sow or gilt. Howell Bros., Berkimer, Kan.

DREAMLAND COL. HEADS OUR HERD. For Sale—Clear Creek Col., a splendid individual and sire; reasonable figure; fully guaranteed. J. R. JACKSON, Kanapolis, Kan.

SHUCK'S RICHLY BRED DUROCS. Fifty Fall Pigs, both sexes, sired by Model Chief and other noted sires. Thrifty and richly bred. Low prices for quick sale. DANA D. SHUCK, Burr Oak, Kan.

GOLDEN RULE DUROC JERSEYS. Twenty spring boars, tops of entire crop. Sired by Dreamland Col. and River Bend Col., out of big mature sows. Priced to sell. LEON CARTER, Asherville, Kan.

IMMUNE DUROCS—Fifty big-type sows and gilts, fall boars and spring pigs. Choice breeding and guaranteed immune from cholera. Inspection invited. P. I. NELSON, Assaria, Saline Co., Kan.

HOLSTEIN CATTLE.

Pure-bred Registered
HOLSTEIN
CATTLE

Last year a California Holstein made a yearly record of 784.13 pounds of fat from 26,921.5 pounds of milk. After an interval of two months she began another yearly test which has just come to a close with a record of 802.1 pounds of butter fat from 28,826.4 pounds of milk.

These two successive yearly tests during which 54,500 pounds of milk were made are more evidence that great records are not sporadic efforts, but represent capacity permanently developed. Send for FREE Illustrated Descriptive Booklets.

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

OAK HILL HOLSTEIN HERD.

For Sale—The greatest young bull ever dropped on the farm, just ready for service, handsome and well marked. Shady Brook Garben breeding close up. His granddaughter was an 18-pound cow, strictly A. R. O. blood.

I will consign some choice females to the F. J. Searle sale, Oskaloosa, Kan., April 30. BEN SCHMIDT, Northville, Kan.

M. E. MOORE & CO.

CAMERON, MISSOURI. CHOICE BULL CALF, born October 1, 1913. Fine individual, nicely marked. Dam, A. R. O. 215 pounds butter, 550 pounds milk, 7 days; sire, son of Pontiac Karndyke with 75 A. R. O. daughters.

FOR SALE—At reasonable prices, 25 high grade Holstein Dairy Cows, all young, good size and well marked. Not registered, but best to be had in the state at prices asked. A few young bulls coming one year old. Independent Creamery, Council Grove, Kan.

HIGH CLASS HOLSTEIN COWS

Both registered and high grade. Breeding stock for sale at all times. Write us your wants. ARNOLD & BRADY, Manhattan, Kan.

HOLSTEINS FOR SALE. High-grade cows and springing heifers, also registered bulls ready to use. Exceptionally good breeding. Write Springfield Stock Ranch, Concordia, Kansas.

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.

CORYDALE FARM HOLSTEINS. Headed by Jewell Paul Butter Boy. Eleven choice registered bulls; ages, few weeks to 24 months. From large richly-bred cows with strong A. R. O. backing. Nicely marked. Splendid dairy type. Reasonable prices. L. F. CORY, Belleville, Kan.

Butter Bred Holsteins

For Sale—A herd bull, also choice bull calves. Prices very reasonable. Write today. These bargains will not last long. J. P. MAST, Scranton, Kan.

GOLDEN BELT HOLSTEIN HERD. Prince Hadria at head of herd. He has 26 A. R. O. sisters, 21 brothers and several daughters. Extra choice young bulls for sale out of 600-pound A. R. O. dams. Farm near town. W. E. BENTLEY, Manhattan, Kansas.

SIXTY HEAD of registered and high-grade Holstein cows and heifers, also a few registered bull calves. HIGGINBOTHAM BROS., Rossville, Kansas.

HOLSTEIN BULL CALVES always on hand, and worth the price. H. B. COWLES, Topeka, Kansas.

GUERNSEY CATTLE

REGISTERED GUERNSEY BULL, 16 months old; one high-grade Guernsey bull, coming yearling; five grade Guernsey cows; one 2-year-old heifer fresh in summer, and 6-weeks-old Guernsey bull calf. All must sell in next 30 days. Write for prices and description. Closing out. DR. E. G. L. HARBOUR, Baldwin, Kansas.

MULE FOOT HOGS

GRAFF'S MULEFOOT HOGS. Gifts, breeding age. Choice boars, winter pigs, either sex. Herd boars. Prices low. ERNEST E. GRAFF, Rosendale, Mo.

FIELD NOTES

Sutton Berkshires. Please read the Sutton offer—40 Berkshire boars, 40 bred sows, 40 open sows, 90 fall pigs. Special prices on them. Ad appears in this issue. Read it. Sutton Farm, Lawrence, Kan.

Shorthorn and Hereford Bulls. In this issue we start an ad for Samuel Drybread at Elk City, Kan. Mr. Drybread offers six Shorthorn bulls 14 months old, reds and roans, all registered and all right, and priced very reasonably. Please write for copy of pedigrees. Mr. Drybread also offers 50 head of Hereford bulls from two to three years old; big, strong fellows, well grown out and priced to sell. They are all registered, represent some of the best blood lines, and are priced to sell. Please read ad, then go see these bulls. If you need a herd bull or a carload, you can buy them at the Drybread farm.

F. J. Scherman of Topeka is advertising some high-class registered Jerseys in Kansas Farmer. His offering includes one Oxford Lad Eminent bull calf, one Grand Fern Lad bull calf, and a number of choice cows. The breeding of this offering is good and they are also a good lot of individuals, and the prices Mr. Scherman is making on this high-class lot are very reasonable. Look up his card and visit or write him if you want good Jerseys. Please mention Kansas Farmer.

Auction Sale of High Grade Dairy Cattle

**Lansing
Kansas**

**Wednesday
May 6, 1914**

Consisting of 21 head Holstein cows, 11 head Jersey cows, 23 head 1 and 2-year-old Holstein heifers; also two registered Holstein herd bulls, one 2-year-old, Sir Hesperides Skylark 10439, sire Skylark Jewel Wayne 44088, dam Hesperides Van Setske 2d 103627; one 3-year-old, Prince Hadria Netherland DeKol 94991, sire Rockdale Viscount DeKol 51369, dam Princess of the World 139543.



This stock is all strictly dairy-bred and a choice lot. Cows all in milk, most all fresh in last 60 days. The owners are quitting the dairy business and will sell stock for what it brings. Sale starts at 11 o'clock, on farm of J. A. Jamison, on the Kansas City road, half mile south of Lansing post office. Trolley cars from Kansas City and Leavenworth every hour.

Three serviceable jacks will also be exhibited for private sale.

COL. J. N. MURRAY and COL. H. L. STRAUSE,
Auctioneers.

J. A. JAMISON, J. M. GABLE, Owners. Lansing, Kansas

JACKSON COUNTY BREEDERS' ASSOCIATION

**MOST PROGRESSIVE BREEDERS OF
JACKSON COUNTY UNDER THIS HEAD**



Bruce Saunders
President



Deyere 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.

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 AGUINALDO DOEDE heads Shadeland farm herd. Dam, Buffalo Aggie Beets, the world's second greatest junior 3-year-old cow. Young bulls for sale. **David Coleman & Sons,** Denison, Kan.

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

JACKS AND JENNETS.



M. H. ROLLER & SON
Circleville, Kan.

Fourteen big jacks and 25 jennets for sale. One imported Percheron and one high-grade Belgian stallion.

PERCHERONS.

BANNER STOCK FARM—Home of "Incus," champion American Royal, 1911; Weight, 2,240. Two young stallions and one two-year-old big jack for sale. **BRUCE SAUNDERS,** Holton, Kansas.

PERCHERONS FOR SALE. A few nice farms for sale. Write **JAS. C. HILL,** Holton, Kansas.

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

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