

# KANSAS FARMER

For the improvement  of the Farm and Home

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## GIRLS VISIT MODERN HOMES

### Study Labor-Saving Equipment Found in Montgomery County Homes

MONTGOMERY County girls for two years have enjoyed farm tours arranged for them by E. J. Macy, county agricultural agent, and the farm bureau of Montgomery County. It is Mr. Macy's belief that such tours are as profitable to girls as they are to men. So far, this is the only county in Kansas in which farm tours for girls have been made. Three tours were planned for this year, one to start from Cherryvale, August 22, one from Coffeyville, August 23, and one from Independence, August 24, the farm girls living near these cities making up the parties on the different days. A heavy rain in the northeastern part of the county prevented the first day's trip, but the other two were carried out according to schedule. Automobiles for making the trips were loaned for the occasion by the fathers of the girls, their neighbors and friends.

Miss Louise Caldwell, of the division of extension of the Kansas Agricultural College, and C. L. Swenson, assistant county agricultural agent, helped County Agent Macy in bringing to the girls' attention those features about the homes visited that were of interest and value to them. Miss Ethel Gillespie, county superintendent of schools, made the trip with the party from Coffeyville.

Fourteen farms were visited in the two days, these being the farms of Oscar Jensen, Mr. Cahill, S. S. Windell, Mr. Ingmire, Mrs. Abe Cline, Mrs. David Cline, Mrs. Helen Blanchard, Mr. Yates, H. K. Baker, H. E. Hanson, Mrs. W. H. Brost, J. W. Miller, Mr. Ditmer, and Mr. Albechar.

#### REQUIREMENTS OF IDEAL HOME

Miss Caldwell explained to the girls each morning that the object of the trip was to familiarize them with the features in the homes and on the farms visited which contribute to the best general development and usefulness of the individual members of the families living there; that the ideal home must furnish not only shelter and protection for its inmates, but also must provide comfort, beauty, and an opportunity for social development, and that the home in which no provision has been made for sociability with neighbors and friends is not ideal. The relation of location, arrangement, decoration, and equipment of the home, to the welfare of the family, was discussed. After hearing what is meant by a well-drained location, what constitutes a well-ventilated, well-lighted, properly-heated, conveniently-arranged, efficiently-equipped, and pleasantly-decorated house, the girls were on the lookout for specific examples and many were found each day, some of these being old houses that had been remodeled to meet modern needs, and some new houses—both large and small—planned and built to meet most exacting tastes.

#### WALL AND FLOOR TREATMENT

Miss Caldwell explained to the girls why a similar wall and floor treatment for all of the rooms on the lower floor of the house gives an air of spaciousness instead of the chopped-up effect that is the result of the hall being done in red, the sitting room in browns and tans, the library in green, and the dining room in blue. They were glad to learn how high ceilings can be made to

look lower and low ones higher, that small, dark rooms will be made less attractive and more gloomy by the use of dark wall papers and tintings in them. This made clear to them why the predominant color in the furnishings of northwest bed rooms is so often yellow, and rightly so, as this shade offsets the effect of the many gray days upon the occupants of such rooms. Many women fail to recognize the important bearing of color effects upon the lives of the members of their households. They fail to recognize that greens, blue, and grays produce calm, cool effects, while reds and yellows used with discretion produce warmth and cheer; that dark shades absorb light, and light ones reflect it; that the treatment given the walls of our houses will in a measure determine the atmosphere of our homes. In the course of the trips such comments as these were heard: "Isn't this a pretty room?" "Wouldn't you just love to stay here longer?" At other times the cross-ventilation provided in a bed room was commented upon, or a closet with a window and light in it, or a screened porch with a good long work table in it and a comfortable chair that seemed to invite the housewife there to do as much of her work as possible, was noted specially by the girls.

#### KITCHEN CONVENIENCES

The water systems found in the different homes were of much interest to these young women. In some this system was only a pitcher pump and kitchen sink, but in others there were complete compressed air systems supplying hot and cold water for every floor of the house. A septic tank system of sewage disposal was in use on one farm, and this afforded opportunity to explain this most ideal method yet devised for the country house. Those who have been responsible for all or part of the daily housework necessary in the farm home readily recognize running water as the most necessary of all modern conveniences, when health and comfort are considered, and the woman who realizes with what ease and small cash outlay a simple system can be installed, determines to find a way to gratify her desires in this direction.

Particular attention was given kitchens, laundries, and back porches, because it is in these places that the housewife

spends the greater part of her time. At one house an outdoor laundry for summer use had been installed under two large maple trees. An old-fashioned copper kettle was hanging over a gas jet, and there was a hydrant right beside it. The wash tubs were on benches at the foot of one of the trees, and the clothes line was near. This housewife has a comfortable, cheerful place to do her work at a minimum use of energy—a remarkably good example of step-saving.

One convenience enjoyed by Southeastern Kansas housewives and which is not possible for many, is natural gas. It is there used quite generally for cooking, heating, and lighting, and occasionally for ironing. One gas iron in use served to show the girls the possibilities of this convenience. They realized that the use of a gas iron makes it possible to place the ironing board in the most comfortable corner of the house and the ironer can sit while doing this work, with the basket of sprinkled clothes on one side and the drying rack on the other. Many steps are saved in this way and the temperature of the iron is more even than when it is necessary to carry it back and forth between the stove and the ironing board.

Well-designed built-in cupboards in both kitchens and dining rooms, linoleum covered floors, sinks with double drain boards, convenient work tables, and screened back porches, were found many times in the two days.

#### OUTDOOR ACTIVITIES

The dairy, poultry, orchard and garden interests were not overlooked. These outdoor activities were given almost as much consideration as were the indoor ones because every farm housewife has a part in these activities if they are not wholly in her charge. A well-cared-for orchard, pruned by a woman under the supervision of the county agent, was visited. A dairy herd was visited each day and here the production of milk under sanitary conditions was explained. One dairy was equipped with a sterilization plant. The party arrived at this farm just at milking time. The important points in producing A-grade milk were explained by the man in charge, and a thorough explanation of the sterilization of utensils was given. Mr. Swenson and Mr. Macy showed the points of merit in dairy cows as each herd was visited.

After a discussion of these points the girls were asked to place a number of cows according to their relative merits as milk producers. Some of the girls showed symptoms of developing good judgment along this line. Emphasis was placed on the practical points in connection with the production and care of milk that may profitably be put into use on the average farm.

Two flocks of chickens were shown to the girls. One owner exhibited her capons and gave the girls the benefit of her experience in caponizing. The other owner told in an interesting way of the profits she had made on her 150 hens since January 1. In addition to the eggs used by the family and those needed for setting on three farms, these hens had produced 1,174 dozen, which had brought \$310 on the market. The necessity of feeding and caring for hens properly was emphasized.

A standard schoolhouse was visited each day and the heating, lighting, and ventilating systems were noted.

Each one took lunch enough and to spare in order that none might go hungry. The lunches were spread on the velvety green lawn of a farm home, one day, and the next day the members of the party stopped in a shady spot on the banks of a creek to enjoy their lunches. The noon hour was made the social feature of the trip each day.

The results of these trips will be far-reaching, as each of these young women in her own way interprets the importance of the features brought to her attention and adapts them to home-making in her own sphere.

Twenty-seven girls were in the party starting from Coffeyville, and thirty-eight were in the party made up at Independence on the second day.

#### "Oleo" in Domestic Science

In Minnesota, which is one of the leading dairy states, dairy interests are up in arms because the head of the domestic science department of the agricultural college is openly teaching the use of oleo as an economical substitute for butter. At present prices butter is the most expensive fat to use for cooking purposes, and dairymen cannot blame housewives for trying to economize by using cheaper fats. The thing they have a right to object to, however, is the fact that this sort of teaching tends to permit oleo to sneak in as an imitation butter. It will cause the housewife in a way to fool herself into using an imitation product when she could just as well be taught to use the fats from which oleo is made at a saving of one-third to one-half of the cost of the imitation product. In the frying pan oleo is practically equivalent to a pinch of butter, some lard or other neutral animal fat, and possibly some cottonseed oil. The fallacy of the whole argument is in the idea of economizing by using a product that attempts to pass as real butter. No one objects to oleo except as it is so colored as to make it pass for butter and sell on the market in competition with the real article.

Fresh air and sunlight combat disease in the stable. Dairy barns should be airy barns. Ventilation is conservation.



GIRLS STUDYING DAIRY COWS ON ALBECHAR DAIRY FARM. THEY PROVED TO BE APT PUPILS

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THE life and efficiency of an automobile depends largely on the care it is given. The farmer must be his own garage and repair man to a considerable extent.

The experience of A. O. Choate, who writes in Hoard's Dairyman on how he has kept his car in good condition, will be of value to our many readers who own and use automobiles. Mr. Choate says he has owned and used a touring car for two years, and considers it one of the best investments he ever made. It has not only afforded himself and family more pleasure than anything else they have ever had, but has saved much time and labor. By using a trailer he has hauled milk, cream, calves, pigs, vegetables, and other farm products to market. He says:

"I have given the car the best of care and, although it has been used a great deal, it now looks better than many I see which have been in use only a few months. I examine it before each trip to see that all bolts, nuts, and connections are in place and tight. I am careful to use none but the cleanest of water in the radiator and see that the engine has plenty of oil. In filling the gasoline tank I strain the gasoline through chamomais to remove water and dirt, thus preventing trouble with the carburetor later on. I always carry a half gallon of lubricating oil and a gallon of gasoline in the tool box for emergency, also a couple of good wrenches, hammer, file, pliers, screw driver, a coil of strong copper wire (both insulated and bare), a tire repair kit, pump jack, a set of extra spark plugs, a couple of extra tubes, and one casing.

"When I bought the car I took my instruction book and gave the machine careful and thorough study, learning what each part was and what it was for, and I have so far not failed in being my own garage man. I start and stop easily, carefully and gradually applying the clutch and brakes. The sudden throwing on of the brakes locks the wheels, causing them to slide and grind the surface of the tires and soon wearing out the tread. In turning corners I slow up, through out the clutch, allowing the car to coast so as to avoid the skidding which ruins tires in a short time. I drive at a moderate speed—ten to twenty-five miles per hour. I consider ten miles at forty miles an hour does more harm to an auto than 100 miles at twenty miles an hour. I keep a good lookout for sharp stones and avoid them as much as possible, going over bad places slowly. I examine the tires every few days for cuts and bruises that let sand and moisture through the rubber tread to the fabric of the tire, which, if permitted, soon rots the tire and causes a blow-out. I have a vulcanizer which cost \$1.80, and vulcanize the bad spots on the tires. I also have a tire gauge and test the tires once a week.

"I do my own valve grinding, doing this every forty or fifty days, depending on the amount of running the car does. I coat the edge of the valve head with valve grinding paste, which I buy in tubes, and turn back and forth with a short motion till the edge of the part and the valve show bright all the way around. While doing this I repeatedly shift the valve around so as to grind evenly. I am careful not to get any of the paste in the cylinders, as it would injure them. Only one make of lubricating oil is used on my car, and this is of the best grade. I once changed to a different brand of oil, as I could buy it a little cheaper than the other, but soon found that the motor was not running as well as formerly. The best insurance of freedom from trouble is proper lubrication of the entire machine. Lubrication charts were furnished with my car but I find it is better to learn by actual observation the amount and frequency of lubrication required than to rely entirely upon the chart. Weather and road conditions and the method of driving the machine have as great an influence as does the actual mileage traveled.

"I am particular about keeping the motor clean. I apply kerosene with a scrub brush, which is very effective in removing accumulations of dirt and grease. In washing out the radiator and

cylinder jackets I use a mixture of common washing soda and water two or three times a year to loosen up all scale sediment. After this process the cooling system is thoroughly rinsed with clean water. I keep the outside of the radiator clean and see that the air passages at the bottom do not become clogged with mud. With a sponge, a large woolen cloth, and clean water, the body of the car is kept bright and clean. I have an especially built house or garage in which the machine is kept when not in use. The auto is jacked up and the axles allowed to rest on supports which take the weight off the tires.

"It is the little care given regularly that counts and keeps the auto up in trim."

## The Machinery Problem

One of the great problems which will confront the nation, if the present war is to continue any great length of time, will be that relating to the manufacture and upkeep of the machinery used in the various phases of our every-day life. The war preparations of the government call for a tremendous increase in the production of the various manufactured articles used in the carrying on of the conflict. In many cases factories which formerly made gas engines, automobiles and various classes of farm machinery have turned all of their efforts to the production of articles of war. Additions have been built to their plants almost over night, and large increases made in the number of their employes, who work night and day shifts, in order that this work may be carried on to meet the demand.

Modern warfare is essentially a conflict between man and man equipped with the most destructive implements that man can manufacture in the shops and factories at his command.

There can be no slackening in this factory production if we are to be victorious. More trained men will be needed for the factories and more for the front, all of which means that there will be fewer producers and more consumers of the necessities of life, food and clothing; hence each must greatly increase his rate of production. Is it not possible that there will be a still greater problem due to the drafting into the conflict of so many of man's old friend, the horse?

All of this means that if production and consumption are to be equal, the rate of production must increase. One of the factors that will play a heavy part in this will be the utilization of machinery. More farming machinery, more tractors, gas engines, etc., to multiply man's power, increase the production rate and lower the cost.

The successful operation of this equipment is going to demand a general increase in the knowledge of the construction, operation and repair of machinery or the results will not be what they should. As the price of machinery increases, the cost of operation is bound to increase accordingly, unless there can be some method devised to counterbalance the cost items of depreciation, repairs, and operation. One excellent way to do this is to "know your machine"; another is to provide proper housing facilities, and another to have a properly equipped repair shop where attention can be given to the parts when needed. Of course, a thorough knowledge of the shop processes and methods is a necessity. This can be obtained by a careful study of books and periodicals relating to the subject, or, what is still better, everyone who can possibly do so should utilize a few weeks and attend some course such as those given at the Kansas Agricultural College, where the principles of this work can be acquired and actual skill developed later.—A. A. POTTER, Dean of Engineering, K. S. A. C.

## Production Costs

County agricultural agents were asked by the Government to obtain figures on the cost of wheat production in their counties. John D. Lewis, agricultural agent of Nemaha County, reports that he found that high cost of preparation of the seed bed was followed in every case by low cost of production per bushel. This is a significant statement

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and, based as it is on actual figures and not a mere guess, should furnish the wheat grower food for thought.

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# KANSAS FARMER

## THE FARM PAPER OF KANSAS

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### MINIMUM HOG PRICES

Gifford Pinchot, representing the United States Food Administration, told an audience at the American Royal last week that the hog supply of this country is fully 20 per cent below normal. He also pointed out that pork products are of vital importance in conducting the war. Our allies are depending on us to make up their deficiencies. It will be necessary to increase our production to 15 per cent above normal to meet this demand, a total increase of 35 per cent over our present hog production.

In talking to the live stock man, Mr. Pinchot was very much in earnest. The judging was suspended long enough for him to present the situation and ask for the opinions of those present. In the evening at the Hereford Breeders' Association dinner Mr. Pinchot again brought up this hog subject and discussed it at greater length than he had in the afternoon at the stock show. He had just come from a conference of hog men held at Waterloo, Iowa, where representatives of six different states were present. Resolutions were passed at this time asking that the Food Administration guarantee a minimum price on pork based on the cost of corn.

The only way to increase immediately the amount of pork is to feed hogs to heavier weights than usual. Feeders will not do this unless they have some assurance that the price will be such as to justify them in putting on the extra weight. The Iowa resolution which Mr. Pinchot read asked that the basis for guaranteeing the hog man against loss be the fixing of a price per hundred equal to the cost of fourteen bushels of corn. By feeding a well balanced ration it is possible to produce a hundred pounds of pork with seven or eight bushels of corn and the small amounts of other concentrates necessary to properly balance it, but in any price fixing depending on the cost of corn it would be necessary to allow a considerably wider margin. Professor Evvard of the Iowa State College thinks that a ratio of twelve to twelve and a half bushels of corn to the hundred pounds of pork would be a sufficient inducement for hog men to carry hogs to extra weights.

The Iowa State War Emergency Food Commission which met in Des Moines recently telegraphed the United States Food Administration as follows:

"The War Emergency Food Commission earnestly recommends that the price of hogs be established at the central markets in their relationship to the price of corn. We urge that necessary steps be taken at once to increase early and larger breeding of hogs for spring pigs. We feel that a price sufficient to pay the cost of production is the only way to eliminate a pork famine during the next year. We strongly favor paying a premium for heavy hogs, that thereby more pork may be produced from the limited number of hogs now in the country, and also increased breeding of hogs."

Some weeks ago Mr. Hoover in conference with the live stock interests of the country pledged himself not to take up price fixing on live stock without first submitting every question to the live stock men of the country and securing their approval of any move he might wish to make. The presentation of the hog question at Kansas City by Mr. Pinchot is a fulfillment of that pledge. After reading the resolutions offered at the Waterloo conference, Mr. Pinchot asked for the opinion of those present and got only approval of the plan. He assured his listeners that he would report this expression of their approval to Mr. Hoover and use his own personal influence to the fullest extent possible to see that hog men be guaranteed prices that would insure them against loss if they responded to the appeal and increased pork products by making hogs heavier and by breeding more sows for next year's farrow.

The principal reason we have a shortage of hogs at the present time is that prices have been such that during the

past six or eight months there has been a loss from feeding corn to hogs, and no industry can continue to suffer losses. Assurance of a reasonable profit is certain to increase production. It is of vital importance that we have plenty of meat and fat next year, and while this price fixing program is something unprecedented in our history, some such guarantee as suggested is about the only way to insure there being any immediate substantial increase in pork production.

The Food Administration is now making plans to license packing houses. If a guaranteed minimum price is placed on hogs based on the cost of production with a reasonable margin of profit, the hog feeder will feel safe in increasing production. Hog men have suffered too often at the hands of the packers to take any long chances in feeding high-priced corn to hogs with the possibility that the packers will take all their profits when the hogs are ready for the market.

### WATERS LEAVES KANSAS

Like a thunderbolt from a clear sky comes the announcement that President H. J. Waters of the Kansas State Agricultural College has resigned and will leave the college about the first of the year to become managing editor of the Kansas City Weekly Star. The new position carries with it a substantial increase in salary and an opportunity to make the Weekly Star one of the leading agricultural papers of the country.

The Agricultural College of Kansas has made tremendous strides under President Waters' administration. He has given it a high standing among institutions of its kind all over the country. In addition to his high attainments along scientific lines, President Waters possesses exceptional executive and administrative ability, as is evidenced by the splendid team work and efficient organization of the able men and women he has gathered around him during his administration of the affairs of our Agricultural College.

It will not be an easy task to find a man who can follow Doctor Waters as president of the Kansas Agricultural College. The Board of Administration plans to scour the whole country in their search for a worthy successor. In the meantime J. T. Willard, dean of science, who has already most efficiently served

several times as acting president, will handle the duties of the president's office.

Much as we regret President Waters' leaving the Kansas State Agricultural College and our state, KANSAS FARMER rejoices that he is to have this exceptional opportunity for enlarged usefulness in promoting the cause of agriculture.

### BUY NEAR HOME

We have got so in the habit of shipping all surplus products to central markets that it requires some little effort to change our methods and cut out some of this moving about of farm products. Numerous instances have been brought to light where cattle or feed has been shipped to Kansas City or other big markets and the same feed or cattle found in a few days back on a farm in an adjoining county.

Economizing in transportation facilities is of greatest importance in the present crisis. There are many agencies available for helping to cut out some of this needless expense for transportation. Many of our counties have county agents and many railroad companies maintain agricultural departments. One of the big services rendered by the county agent or the agricultural agent of a railway is to bring buyers and sellers nearer together. We note that J. E. Payne, who is in the development department of the Frisco Railway, is urging Oklahoma people to make their feed wants known so as to save some of the transportation expenses and release cars for other uses. Mr. Payne points out that many communities in Southwest Oklahoma will need to buy either grain or hay this year. Eastern and Northeastern Oklahoma and Southeastern Kansas have grain and hay for sale. Following the usual custom, the surplus would go to St. Louis, Memphis, or Kansas City, and the Western Oklahoma farmer would have to buy from these distant markets. Mr. Payne is hoping to help people to find grain and hay before it leaves the station near where it is produced. In this way there will be a saving in the use of cars and both buyer and seller will profit. This is a suggestion that might well be taken by farmers generally. There is certain to be a shortage of transportation facilities and every saving effected in this way will help out on the transportation proposition.

## Volunteer in Conservation Army

**I**N SOME countries the saving of food has been enforced by law. In this country, in keeping with the principles of democracy for which we are contending, the problem is to be solved by the voluntary cooperation of the citizens of the nation. Herbert Hoover, federal food administrator, has selected the week of October 21 to 27 for a nationwide campaign to complete the enrollment of all the forces of the United States in conservation of the food supplies.

During the week mentioned, throughout Kansas, as well as throughout all other states of the Union, every man, woman and child will be asked to subscribe his name in the lists of those who will form the great volunteer army of food conservers. As a patriotic duty and privilege, these men and women and youth will pledge themselves to adopt, so far as they can, the practical measures that will be suggested. In this way they will become volunteer members of the United States Food Administration, an organization which, when the history of the war is finally written, may be found to have played the decisive part in the great struggle.

The people of Kansas have responded nobly to the call for soldiers, to the appeals for subscriptions to the Red Cross and other essential war-time activities, and to the call for unprecedented production of food with which to feed American soldiers and our allies. In these great activities it has been the pride of the state that Kansas contains no slackers. In this special campaign about to be inaugurated—quite as significant as any that have gone before—let Kansas enroll every citizen in America's army of conservation. What we waste may lose the war. What we save will win it.—DR. H. J. WATERS, Federal Food Administrator for Kansas.

### SAVE SEED OF SORGHUMS

Every year we hear of the difficulty of obtaining good seed of the grain sorghums. This is frequently offered as an excuse for not growing sorghums. Probably one of the chief reasons kafir and other sorghums do not fill a larger place in our farming plans is because of this failure to have a supply of good early maturing seed on hand when the time comes to plant.

Important as it is to select seed corn in the fall, it is of much greater importance to select and properly store seed heads of kafir, milo, feterita, and others of the sorghum grains. Select these seed heads early in the fall, is the advice of C. C. Cunningham, of the Agricultural College. Mr. Cunningham has for several years traveled extensively over Kansas in connection with the co-operative experiments being conducted on farms over the state. His observations have added value because of this opportunity for seeing the results following the use of poor seed.

Selecting seed of the sorghums is of even greater importance than usual this year because in many sections these crops have made a late growth and have failed to fully mature in advance of freezing weather. Already killing frosts have occurred over much of the state, and to insure good seed for next year's planting it must be selected soon.

Sorghum seed, if not thoroughly ripe and dry, is easily injured in vitality if subjected to freezing weather. The only way to insure a supply of seed of strong vitality for next season's planting is to select it in the field before there is danger of freezing. Fully matured heads should be selected if they are available, but heads that are not yet quite ripe—in "dough" or "hard dough" stages—will make good seed if properly cared for until they are thoroughly dry.

It would be better to save slightly immature heads for seed rather than take chances on having the vitality of the seed injured or destroyed by freezing. Very little time—perhaps half a day—is required to select a sufficient number of heads to furnish seed for planting next season.

In selecting grain sorghums—kafir, milo, and feterita—choose heads that are true to type and well filled, with large, uniform seeds, is Mr. Cunningham's suggestion. The heads should be well out of the boot, or top sheaf. If the leaf partly surrounds the lower part of the head, it affords a place for insects to hide and for molds and other plant life to develop. Plants of this type are undesirable.

The plant should be given some consideration. Choose heads from strong, sturdy, upright stalks of a uniform height that carry an abundance of leaves. Heads should always be taken from plants growing where the stand is right or possibly a little thicker than normal. Good heads produced under these conditions will likely make better producing seed than those from large heads developed where the stand is thin.

The International Stock Show which will be held in Chicago the first week in December, promises to be one of the finest exhibitions of the feeders' and breeders' art ever made. There should be a record attendance at the International this year. The need for the best of live stock of all kinds has never been greater. This great stock show is one of the places where correct ideals can be formed as to what constitutes real merit in meat producing animals. The entries close November 1. Those of our readers who plan to exhibit stock of any kind should keep this date in mind and be sure to get their entries made in time.

Actual tests have proved that carefully stored seed corn will yield as much as eighteen bushels more to the acre than seed from the ordinary storage of the corn crib. This would mean almost double the yield for some folks.

# THE FOOD SITUATION IN FRANCE

## Nation Faces Wheat Deficit of Five Million Tons

By FRED B. PITNEY

**T**ELLING the truth about the food situation in France is an extremely difficult thing to do, for one comes immediately into contact with so many counter currents of opinion. There is no question in the mind of anyone conversant with the facts that it is not only with Germany, but with the Allies, as well, that the food situation is serious and needs prompt and effective treatment. But in the endeavor to deal with this question one finds constantly in the official mind an attempt to reconcile two irreconcilable positions.

**GOVERNMENTS ALONE CANNOT WIN WAR**  
On the one hand, there is the open and full recognition of the seriousness of the situation, of the demand for prompt, full and efficacious co-operation and co-ordination of effort among all the nations warring against Germany in order that each may be able to sustain its striking power at the point of highest efficiency. This opinion recognizes that governments alone cannot win the war. It must be a war of the allied peoples against Germany. And this opinion sees the necessity of laying the situation fully and fairly before the people so that they will voluntarily adopt the conservation methods necessary to victory.

On the other hand, confused in the same minds with this opinion there is an idea that if the people are told too much they will become frightened and will weaken. That is a bald statement, very plainly put, but that is what it boils down to. The statesmen and politicians have a peculiar idea that they are the only men who are far-sighted enough and strong enough to face the whole truth and go on fighting. So they try at the same time to arouse the people and to reassure them.

We find a fine example of this in the submarine. On the one side we are told that our efforts to overcome the submarine must be redoubled, while on the other side we are told the submarine is a failure and it is to laugh at the German threats. In regard to food we are told that the Allies must guard their every resource, and immediately on top of that we are told they have reserve stocks for the next three years. We are told that it is vitally necessary for America to put a great army in the field at once and in the same breath we hear that the allied preponderance in man power over Germany is increasing every day.

### WHOLE TRUTH MUST BE KNOWN

How can one expect to arouse a nation at war with such a stream of contradictory statements? My own opinion is that the peoples of all the allied nations are strong enough to know the whole truth and that knowing it will only make them more determined and fight harder, while at the same time their collective action will be much more intelligent. I do not believe in any government trying to win this war. I believe that only an aroused nation will be victorious. And I believe that the way to arouse the nation is to lay every shred of fact fully and completely before the people.

In France, however, one meets with a third phase of official opinion that further complicates the situation. France has borne the brunt of the fighting on the side of the Allies for three years. Her resources in men and material have been strained to the uttermost, and everyone realizes that France cannot go on bearing the brunt of the fighting for another three years. Yet, French statesmen are so afraid of the possible effect at time of the peace conference of an admission that France needs assistance now that immediately the idea is suggested there comes an official denial in one form or another. French statesmen, perhaps with reason, are obsessed with the idea that France will get an extremely short end of the stick at the peace conference, if there is a suspicion that she does not go into them stronger than she went into the war and able to fight on for another million years. But how is she going to get anything at the peace conferences if the Allies are not the victors? And how are the Allies to be the victors unless the people of America know the full truth about the task imposed on them?

This complicated situation makes it extremely difficult, however, to tell the truth about food conditions in the face

of the imminent probabilities of thereby injuring susceptible official feelings.

**PERSONAL EXPERIENCES IN FRANCE**  
As I have kept house in Paris during the war, I can speak from experience on the food situation in France as it affects the individual. And let me remark in passing that one learns a great deal, when keeping house, of which one gets no inkling when living in a hotel or eating in restaurants. One can always go to a restaurant and order a meal and get it. I have heard many visiting Americans, who lived in France in that way, pooh-poo the idea that there was a food shortage in the country. If those same persons had had to search the markets before they had their meals, they would have gained a very different idea of the food situation.

Sugar offers an excellent concrete example. In a restaurant one is fairly certain of sugar for one's coffee. Three lumps to a person is the rule. Formerly the sugar was put on the table in a bowl and one helped oneself. Now the ration is served to each person separately. Still, one is fairly sure of one's sugar in a restaurant.

But if one is keeping house, one finds that one must have a "sugar card," permitting him to buy a stipulated amount of sugar in a month. The allowance is one and one-half pounds of sugar a month, if three meals a day are taken at home; one pound if two meals are taken at home, and one-half pound if only one meal is taken at home. This means for the person who takes three meals a day at home, eighteen pounds of sugar a year. The annual sugar consumption per person in America is eighty-five pounds.

One would not be likely to find this out if one were living in restaurants in France, but one finds it out very soon if one is keeping house.

It is soon learned, also, that the "sugar card" does not mean that one can demand a pound and a half of sugar a

month, but only that one is permitted to buy that much, provided a dealer can be found who has it to sell. A dealer who has sugar will not sell it to anyone who comes in. He sells only to his own regular customers.

We paid last winter in Paris 11 cents apiece for eggs and \$2 a pound for butter and there was frequently neither butter nor eggs nor milk to be had. Private families were allowed to buy one-eighth of a pound of butter at a time. The grocers could not sell flour, only the bakers. The flour mills could not choose their own customers, nor could the bakers and restaurants choose the mills they would buy from. Lists were made out telling each miller to whom he could sell. This was in order that one section should not be able to eat up the stock of flour belonging to another section, or one baker deprive the customers of another, when all were short.

**WHEAT SITUATION IN FRANCE**  
Let me give you the official figures on the wheat situation in France, so that there can be no question.

It is estimated that there will be a deficit of approximately 5,000,000 tons of wheat in France over the period from September 1, 1917, to September 1, 1918.

The normal annual consumption of wheat in France is from 9,200,000 tons to 9,400,000 tons. France has always been an importer of wheat, her average production for several years before the war being 9,000,000 tons, or slightly less than the consumption. Since the beginning of the war her production has fallen off radically. In 1914 it was 7,700,000 tons; in 1915, 6,065,000 tons, and in 1916, 5,840,000 tons, while for this year the crop is estimated at 4,000,000 tons with a possibility of rising to 4,500,000 tons, leaving for the period from September, 1917, to September, 1918, a deficit of nearly 5,000,000 tons, which must be made up by imports.

**WHEAT MUST COME FROM AMERICA**  
Where can those imports come from

except from America? Italy by reason of her position in the Mediterranean takes the first toll from the wheat of the Far East, while England, of whom the Far Eastern wheat producing countries are colonies, takes the remainder. France can get a little from South Africa. Argentina has stepped the exportation of wheat. This country is the only resource left to France.

I have spoken of the scarcity of flour, resulting from the shortage in wheat. Let us try to see what this means to France. In the first place, it must be realized that there bread is the staple article of food. It is the base of all means, especially among the working population. Breakfast consists of coffee or chocolate and bread. Luncheon is bread, soup, coffee, and often, though not always, some meat or fish and a vegetable. The big dish is bread. Bread is again the base of dinner or supper, however the meal may be called. Bread and cheese will make an entire meal for a French peasant, with a glass of wine to wash it down.

**BREAD ALLOWANCE AND "BREAD CARDS"**  
The French soldier's allowance of bread was a trifle over a pound and a half a day. On account of the shortage of wheat it has been necessary to cut this ration to a pound and a third a day. And it is not necessary to say that only dire necessity will countenance the cutting of the soldier's ration.

Another thing that has happened is "bread cards" in some localities. There is no national "bread card" in France as there is a "sugar card," but in some parts of the country it has been necessary to restrict the use of bread by local regulations. I have in mind several letters from my friends among the peasants of Brittany, telling of the privations they were enduring because their bread was cut down so much. Remember that bread is the chief article of diet among those people.

**FRANCE SUFFERS IN SILENCE**  
Do not think they complained. There is no finer-souled, stronger or greater people in the world than the French peasants. They are heroes among a nation of heroes. No trial that justice and right could demand would wring a complaint from Josephine Merve, one of the grandest women among a grand race. That simple peasant woman can neither read nor write, but without a word of bitterness she gave her husband to her country, and she is schooling her five sons and raising them for her country. The oldest goes to the army with the next class that is called out. When little Charlot, next to the youngest of her boys, writes for her and tells what they are enduring, there is no complaint, no bitterness. It is a simple statement of facts in plain and homely language, the story of a peasant cottage told to the child she nursed and loved.

And one cannot help her. One can send money, but it is not money she needs, but bread.

**Furs Will Be High**  
Big fur houses in St. Louis and elsewhere have sent us communications which tell us that the demand for furs throughout the winter promises to be very good. All the American furs are wanted by the big fur houses, including skunk, muskrat, mink, opossum, fox, wolf—in fact, every kind of marketable fur.

This prompts us to remind all our readers to get ready for trapping early. Write to your favorite fur house and ask them for game laws, price information, prices and descriptions of new traps, and any new devices they may have for smoking out fur-bearing animals, bait to attract them, and so on.

Plan to do systematic trapping. But don't begin any trapping until the cold weather is on and the animals are full furred. If you trap early you get the animals with thin fur, whereas by waiting a few weeks that same animal will more than double in value. It is money in your own pocket not to sacrifice desirable fur-bearing animals by getting busy in actual trapping too soon.

The concerns which advertise in this paper are reliable.

Cull potatoes make profitable pork.

## Miami Farm Boys' Tour

**M**IAAMI County farm boys will not soon forget the many things of interest which they saw on the recent tour of their county which was arranged for them by O. C. Hagans, county agricultural agent. The county agent's car and eight others were used for the trip and thirty-eight boys and ten men were in the party.

Horse judging was the object of the first stop, which was made at J. M. Nolan's horse barn, where Percheron, Belgian and Coach horses were studied by the boys. Pointers on judging were given by the owner of the horses and by the assistant county agent, J. L. Lantow.

An orchard on the farm of S. M. Craig, which is an example of effective pruning and spraying, proved to be of much interest to the boys.

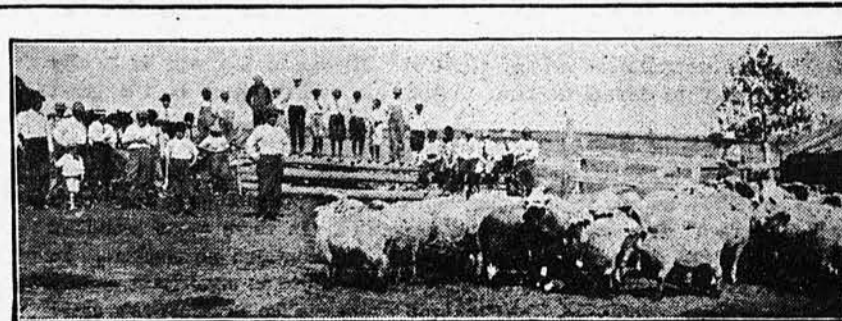
Next, a practical lesson in dairying was obtained at L. B. Smith's modern farm dairy. The use of the sanitary equipment, including the water system in the barn, was explained to the boys. The good dairy herd on this farm received its share of appreciation from the visitors.

The party stopped at noon on the shaded bank of the Marias des Cygne River. Each boy had brought along his own dinner, and after the baskets had been emptied an hour was spent in getting acquainted and in having a general good time.

H. L. McDill's herd of 125 pure-bred Hereford cattle, and P. J. Ernst's flock of Shropshire sheep, were objects of the next stops and the boys were much interested in these classes of live stock.

The last stop was made for inspecting an acre of corn grown by one of the boys, Robert Allen. Many questions were asked by the boys in regard to the state corn contest and corn-growing methods. These were answered by D. B. Allison, corn club leader for the county. Most of the Miami County boys who are in the contest expect to finish the season's work in the club and have a part in the exhibits to be made this fall.

The return trip was made by way of Osawatimie, where many of the boys saw the state hospital for the first time. All agreed that the day was spent both pleasantly and profitably.



UNDOUBTEDLY THESE BOYS CAN TELL THE ADVANTAGES OF SHEEP RAISING FOR MIAMI COUNTY

# STARTING WITH PURE BREDS

## Begin in Small Way With Good Animals and Grow Into Business

**T**HERE is room for tremendous development in the pure-bred live stock business. The days of the scrub are numbered. How to get started is a question that confronts every beginner. It requires a good level business head as well as technical knowledge of pure-bred stock to bring success.

There have been many failures in handling pure-breds because the beginner was not willing to grow into the business gradually. Some most interesting and valuable experience along this line was given recently in The Shorthorn in America by F. E. Jackson, president of a bank in Hurley, South Dakota. Mr. Jackson's experiences have been both as a banker and as a breeder of Shorthorn cattle. He says:

"While I am fully aware that some bankers do not look with favor on loans for the purchase of pure-bred stock, my experience has convinced me that such loans, properly placed, are not only absolutely safe and desirable from a banking standpoint, but that the borrower can profit handsomely by the intelligent use of the funds. I well remember some failures away back in the early nineties but those times have long passed, I hope never to return again—those strenuous times of eleven-cent corn, eight-cent oats, two-cent hogs and twelve-dollar cows. The pure-bred stock industry was not the only branch of agriculture that suffered. I believe the great majority of our bankers now realize that conditions have permanently changed; that more and better live stock are needed on our high-priced lands if any profit is made, and are willing to finance their customers for foundation stock.

"In the old days, when the best Iowa farms were worth only \$15 to \$30 per acre and Uncle Sam was giving away countless numbers of 160-acre farms in the Dakotas, had one for everybody that would pay \$14 filing fee and loiter about in the same county most of the time for a period of eight months, then the question of value, or rather the problem of income in proportion to land values, need not be considered. But how different today! Land is high and going higher. Many of our farms are mortgaged for four or five times what they cost in the nineties, the interest must be met, the taxes are higher, we must now make our farms produce an income in proportion to the valuation. To do this better farming methods and better live stock must be used. Scrub stock and \$200 per acre land are poor companions, financially speaking.

"It just so happened that, as a boy, my environment was such that I gained a little knowledge of the pure-bred stock business that has served me well ever since. At the age of nineteen I secured a position as stenographer in a bank in Corning, Iowa, of which Charles C. Norton, a prominent Shorthorn breeder, was then the cashier. The first Sunday following my arrival there Mr. Norton invited me and one of the other employees out to his home for dinner. How thoughtful on his part, for the first Sunday in a strange town is always a long, lonesome day for a lad just away from home, and he is apt to get homesick. Not so on this occasion, for after a splendid dinner Mr. Norton asked us to accompany him on his Sunday afternoon walk through the pastures to see the Shorthorns. Magnificent cattle they were, and on our way home that evening I remarked to my companion that some day I hoped to be situated as Mr. Norton was then, with an official position in a good bank and a farm near town stocked with Shorthorns. It required sixteen years of effort to realize this "boyhood dream," but it finally was possible. So for several years past I have been a banker-farmer—perhaps I should reverse it: a farmer-banker—and have had a little experience on both sides of this game.

"I mention this only to show that the environment in which I was happily placed in my five years' employment there not only shaped my hopes and ambitions, but gave me a training that was afterward useful in the development of the pure-bred stock industry around my home town, Hurley, South Dakota.

"When I came out here twelve years ago to take the cashiership of the Turner County Bank, and later its presi-

dency, I naturally felt interested in the two men in our business territory who were breeding pure-bred stock, each having a small herd of Shorthorns. As is usually the case, they had started with rather plain cattle, both in quality and breeding, had tried out the business in a careful, conservative way and had begun to see its possibilities. They held a public sale together, making an average of \$94 per head, and each then bought a few of the better sort. One of them died before reaping the harvest from his investment in better cattle, but he had built up a splendid herd and could he have lived even another five years, he would have profited handsomely. The other man has built up a splendid herd, about eighty head on his farm now that would bring at least \$40,000 if dispersed at auction, but there is no such intention, as his son has taken an interest in the business and it will be continued for another generation at least.

"This industry has developed around our town until we now have sixteen Shorthorn herds, three of Herefords, three of Angus, twenty-four of Poland-

may wonder why I hold a man down to such a modest beginning, but the plan has many points to recommend it. It is not where a man begins, but where he ends, that counts. By starting with a few of the better kind he will never have to start twice or three times to get in right, as many breeders have done. Then certain lessons must be learned in the school of experience in this business, as in all others, and these lessons are less expensive with a small herd than with a large one. And if financial conditions should get in bad shape and values settle to lower levels, the debt will not be so large that the bankers will get scared and force the breeder to close out while values are down in the dumps, nor will the herd be so large but that the breeder can carry the females through a period of depression until better prices can be realized for such as he cares to sell. If a man is not adapted to the business, he will find it out and get out without getting hurt much, as he might with a large herd and a proportionately heavy debt. As the herd increases and the young breeder gains in experience he can buy more females with money received for

come to my notice is that of over-reaching in numbers when buying foundation stock and under-reaching in the quality and breeding of the animals. A few of the good kind are far more profitable in the end than many of the cheaper kind, this comparison being made on the same amount invested, of course.

"In financing this industry in our business territory our policy is to carry the notes until the sales of male animals cover the note, permitting the breeder to keep his original females and their female progeny to build up his herd. At that, it is not what bankers term 'slow paper,' the hog notes being invariably paid within a year and the cattle notes in two or three years. I cannot remember of carrying a cattle note longer than three years, even with heifer calves predominating, and I believe every banker will find notes in his pouch that he has renewed year after year and carried for a longer period than would be asked on a pure-bred cattle note. 'Let the bull calves pay the note' is our slogan in connection with this industry, and if more of our bankers will carefully study the subject with a view of meeting the needs of their respective communities for better live stock, I believe this slogan can be more generally adopted with gratifying results. Bankers are not such bad fellows on the whole, but naturally they become nervous sometimes when trying to finance something they so little understand. Hasten the day when they all study this growing industry and understand it better than now. No longer is it a hobby or a luxury, but a necessity.

"It might appear on the face of it that the pure-bred stock business could be over-done in a given locality, that the supply would soon exceed the demand, and it might eventually if local demand only were considered, but this is a big country just beginning to realize its necessity for better stock, and as land values continue to increase, better stock will be needed to replace the scrubs if any profit is made. Pure-bred stock may be cheaper some day than now. We all expect that, in fact. War prices will not last forever, we hope not, anyway, but when values go lower, it will be due to financial and industrial conditions that will likewise affect every other industry in proportion, pure-bred stock no more than other industries, and not to any over-production of good stock. In fact, our great South needs all our northern surplus for years to come, your great Northwest needs and is buying more than ever before, and the trade with Argentina and other foreign countries is developing satisfactorily. I have never seen the industry on such a healthy basis as now and the future looks bright.

"Contrary to the general opinion, the industry seems to prosper best in these breeding centers. Buyers will come from a distance who could not come if only one or two herds could be seen; indeed it is a drawing card to advertise that a dozen or more herds are located in one locality and can all be seen with one expense. And it is easier and cheaper to get the trade by bulk advertising for a community than for single breeders, remotely situated, to strive for it singly. So I would say to a young breeder, do not try to corner the business in your locality or make yourself believe that competition will hurt your trade. Let all your neighbors go into it who will, encourage them and help them, then all pull together and watch results."

Sorghum crops have as usual demonstrated their ability to withstand dry weather, according to W. A. Boys, district agricultural agent in West Central Kansas. Much of the corn was damaged beyond recovery while the sorghums will make good yields of forage and possibly some grain in case of the earlier varieties. Feed crops and pastures were improved by the August rains and the yields of crops suitable for silage will be better than were expected a few weeks ago. The quality, moreover, has been improved.

Put the farm machinery in first class order during odd times this winter. An hour spent in repair may prevent later on a day of despair.



JERSEY HERD SHOWN AT TOPEKA AND HUTCHINSON FAIRS.—HEIFER AT LEFT GRAND CHAMPION FEMALE

China, nineteen of Durocs, and other breeds in lesser numbers. One agricultural editor, in his article, put it this way: 'Hurley is an insignificant little town, not famous for anything else except its pure-bred stock, but in that respect it sticks up on the map like a wart on a man's nose.'

"While the business has had my encouragement and financial support, I have never taken any reckless risks with our depositors' money, never had the least trouble with one of these loans, never did anything in fact that any banker awake to the needs of his community and its financial development (which ultimately means the growth of his banking business) should not have done. I believe I can safely say, however, that more money comes to our bank now from sales of pure-bred live stock than from any other source and there is considerable satisfaction in seeing so many young men making good and pushing on toward a successful career.

"My method of starting young men in the breeding business is different possibly from that of most bankers. Some bankers I have known are liberal enough with loans when money is easy, even encouraging a young breeder to go in deeper, driving out to the farm on Sunday to show some eastern friend the class of stock raised in his territory, and all that, then when money gets a little tight and there is the slightest sign of a little depreciation in prices, they get scared clear through and urge the breeder to close out and repay the money. That very thing has been done too many times.

"I prefer to start a man in a small way, with good animals, then stand by him until the race is finished and the note paid instead of forcing him out on a down market. My policy has been to loan enough for four to six cows and a good bull, or two or three sows in case hogs are wanted, emphasizing the point that choice individuals must be selected, then urge my customer to stop spending money (borrowed money at least) and grow his own herd. He should grow into the business rather than go into it. You

male animals sold, or he can even borrow again and build up a little faster if he chooses, but my experience leads me to believe that with five or six good cows to start with a man will get along just about as well without much further help.

"I have never known a man to go wrong or get in financial difficulty in breeding pure-bred stock legitimately. It is getting engulfed in booms, fads and fashions in a speculative way, and doing so on borrowed money, that has sometimes terminated the wrong way. Every man who has started breeding pure-bred stock in our locality is still at it, no quitters yet, so each of them must be making good. Some of our farmers are not keeping up the registration of their hogs, but even they are maintaining the breed in its purity on their farms, producing pork for market.

"Perhaps it would not be out of place here to consider briefly some of the mistakes that are apt to be made by a beginner. The cold fact is that some men will make a tidy little fortune out of the business while others will go broke. Wherein lies the difference? There are about three classes of men who will be failures: The man who holds his purse strings so tightly that he will not buy good animals to start with; the man who, after getting a fairly good herd of females, uses a mean sire to head the herd; and lastly, the man who expects to win out by buying pure-bred stock and giving it scrub treatment.

"My experience has taught me that a man should buy choice animals to start with, limiting the number to his purse, rather than buy a larger number and sacrifice in quality and breeding; that a man can never get anywhere, unless it be on the rocks of adversity, by using a mean sire in his herd, and that good care and proper feeding are just as essential as good breeding. Once satisfied that a young man possesses the right ideas of this business and has the equipment and ability to properly care for his stock, I have not hesitated to make him the loan for foundation stock, and have yet to finance one that has not made good.

"The commonest mistake that has

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"Loafing acres" are common on many farms now under cultivation. This condition is due to a number of causes, such as uncleared land, poor drainage, deep washes, unused fence lines and neglected corners in fields. Much of this land could be reclaimed and planted this fall or next spring. It is possible by this means to increase the acreage of tilled lands in our middle and western states by 10 to 20 per cent. It is the duty as well as the privilege of every farmer to bring as many of these "loafing acres" under profitable culture as quickly as possible.

The United States Food Administration has just received official figures on the prospective wheat crop in India. The estimates indicate an increased yield of 19.3 per cent over the crop of last year, which would make the estimated production this year amount to 338,600,000 bushels. The exportable reserve of wheat remaining on hand in India September 1 was estimated at over eighty million bushels. Lack of adequate shipping facilities holds this wheat from the world's markets pending peace and the overcoming of the submarine menace.

## KANSAS FARMER DAIRY CLUB

### Importance of Balanced Rations

**WE** MUST understand what is meant by a balanced ration, if we are to feed cows profitably. The cow eats the hay, fodder, corn, bran, and other feeds, and uses the different things found in these feeds for a number of purposes. A portion is needed for growth if she is a young heifer, and even the full-grown cow needs some material to replace worn-out parts of her body. Then she must keep her body warm, and that uses some of the material found in the feed. Movements of the body, the act of breathing, chewing, and digesting feed, all require something that must be taken from the feed. We speak of this last as energy. It means that by some process the body is able to get from the feed the power of motion. In doing work with a feed grinder or threshing machine, some fuel must be burned under the boiler or in the cylinder of the engine, and this burning of the fuel supplies the energy that makes the wheels go round. In a very similar way certain parts of the feed make heat and energy in the body of the cow.

When you feed your cow she is first going to use all of the feed necessary for these things mentioned above. If she is a milk cow and has anything left, she will make milk. If she happens to be a beef cow, or a dairy cow not giving milk, she will add fat to her body, using the surplus material in the feed for this purpose.

The different kinds of material found in feeds are called nutrients and what the cow uses for her own body is spoken of as the maintenance requirement. It might be compared with furnishing a machine with just barely power enough to keep the empty machine running. If you give your cow just barely enough feed for her own body, she cannot give milk. She will simply be a machine running empty without sufficient material to make any milk. Dairy-bred cows will give milk for a time even when fed only a maintenance ration; because they actually use portions of their own bodies to make the milk. This cannot continue very long, and meanwhile the cow will be getting thinner and thinner in flesh.

Before understanding what is meant by the term, "balanced ration," we must study the composition of the different kinds of feeds. We must know what kind of nutrients are found in each one and in what amounts. We class these nutrients in three groups. The first group is called protein, which term might be defined as necessary elements for tissue building or growth. The protein part of the feed is the part that makes growth of all kinds, such as muscles or lean meat, horn, hair, skin, etc. All feeds have starch and sugar in them. Corn or wheat contains a great deal of starch. Starch and sugar make heat and fat, and can be used by the animal to give it the energy to move about. The protein is very necessary in making milk. Milk is designed by Nature to feed the young calf, and it must grow very rapidly. Therefore its natural food must contain plenty of material for making growth. Milk contains quite large amounts of protein. When milk sours the protein part thickens and forms the curd which is used in making cottage cheese. When you separate the milk in a separator, you take out the cream, which contains the fat, but leave in the skim milk nearly all the protein.

If we expect a cow to give a lot of milk, her feed must have plenty of protein, for nothing else can take its place. Protein can be used to make fat, heat, or energy, but starch or sugar cannot be used to make the curd of milk, no matter how much there may be in the feed. If you gave a carpenter a supply of lumber but no nails, he could not build a house, because the nails are absolutely necessary to fasten the lumber together. So you might feed a cow prairie hay, fodder, and corn, and she might eat all she could hold and still not have protein enough to make very much milk. She would probably have a lot of extra starch and sugar, but these would be wasted or go to make her fat, which is the same thing as wasted on a dairy cow.

All feeds contain small amounts of fat or oil, and these are used for the same purposes as starch and sugar and like them can be used for making the protein part of the milk. We have al-

ready mentioned the name applied to the part of the feed which is so necessary in producing growth or milk. The second kind of nutrients we give the group, or family, name of carbohydrates. This is the big family of the feed nutrients. It has many members and nearly every kind of feed contains more carbohydrates than fat and protein combined. For example, a hundred pounds of corn chop contains about 60 pounds of digestible carbohydrates and only 6.9 pounds of protein and 3.5 pounds of fat, which is the name given to the third group of nutrients. Some feeds have a great deal more protein than corn; for example, a hundred pounds of old process linseed oil meal contains 31.7 pounds of digestible protein, 37.9 pounds of carbohydrates, and 2.8 pounds of fat. Two pounds of the oil meal thus contains almost as much protein as ten pounds of corn chop. You can see from this why the feeding of some such feed as oil meal or cottonseed meal is usually necessary when your cow needs more protein.

When we feed a balanced ration, we simply use the right amounts of the different feeds so there will be enough protein, carbohydrates, and fats, and not too much of any one, because the cow simply cannot use anything else in the place of protein for making milk, and if there is too much of the carbohydrates and fat she will get fat or waste what she does not need to keep her body warm and to supply the small amount of fat in the milk and give her energy enough for moving around and doing the other things necessary. The first thing to do, then, is to learn all you can about what is found in the different kinds of feeds. You will have to do this so that you can combine with the feeds having very small amounts of protein other feeds having large amounts of protein. Every Dairy Club member should send to the United States Department of Agriculture, Washington, D. C., for a copy of Farmers' Bulletin No. 743 entitled "The Feeding of Dairy Cows." In this bulletin will be found the very information you need about the composition of the different kinds of feed you will have to use in feeding your cow a balanced ration. The bulletin is free.

We will explain more about how to balance a ration in a later issue.

### Send Sample to Manhattan

Hazel Shriver, of Lyndon, writes that she has received the stationery and milk and feed record blanks, and thinks it is going to be fun to keep the records. She asks if the milk samples are to be sent to the Kansas Farmer office or to the Agricultural College.

We hope Hazel and the other new members will enjoy the club work as much as they expect to. It is interesting and there is nothing hard about it if everything is done when it should be done and the work kept up to date. Of course, like any other work, it would become drudgery if one neglected it and got behind with the records.

The samples of milk are to be sent to Prof. O. E. Reed, Dairy Department, Agricultural College, Manhattan, as we have no way of testing them here. The tests are reported to us about the last week of the month and we send them out to club members. The bottle will be returned to you from Manhattan. Remember to take this sample on the fifteenth of each month, following carefully the instructions which were sent you. If for any reason you failed, to receive the printed slip telling how to take the sample, write to us for it. Be sure to take a sample of your cow's milk October 15 and send it to Manhattan for testing.

### Begins Paying for Cow

The new club members are already beginning to find that a good dairy cow quickly begins to pay for herself. At the end of the first month Stephen Wecker, of Olpe, wrote as follows to F. C. Newman, president of the bank where Stephen borrowed the money to buy his cow: "Inclosed find check for \$15.56, which I made on my cow for the first month. I sold my milk at seven cents a quart, which gave me \$18.00 for the month. I had to pay \$2.50 for pasture, which leaves me \$15.56 to pay on the note."

# Milk Ration For Jersey Herd

**W**E have the following letter from C. W. S., Butler County: "I would like your suggestion on a ration for my Jersey cows this winter. I have a good supply of corn fodder which I expect to thresh, as there is not much corn in it. I can get bran at \$32 a ton and cottonseed meal at market prices. I also have alfalfa which I can get made into meal. The hay is selling for \$18 to \$20 a ton. Oats can be purchased for 68 cents a bushel. These feeds are almost all protein feeds with only a small percentage of carbohydrates. Do you think it would be profitable to buy a cheap grade of molasses to mix with them, or would you suggest something else, and in what proportions would it be best to mix the feeds available?"

It is important that every dairyman put more than the usual amount of thought on the feed question. Anyone could make money milking cows when feed is cheap and plenty, but we must make a very careful study of the composition of the different feeds and the requirements for milk production to make the cows pay under present conditions. There has never been a time when it was more important to be sure that the right kind of cows are being fed. Our correspondent has the right idea and is striving to figure out the most economical feeds to use, based on their nutritive value and prevailing prices. To illustrate the knowledge we must have in order to figure on rations, we give below a table showing the digestible nutrients contained in the feeds mentioned. The total digestible nutrients given in the fourth column is the sum of the protein, carbohydrates, and the fat, multiplied by 2.25:

	Carbohydrates		Fat	Total
	Protein	Carbohydrates		
	Lbs.	Lbs.	Lbs.	Lbs.
Bran . . . . .	12.5	41.6	3.0	60.9
Oats . . . . .	9.7	52.1	3.8	70.4
Cottonseed meal . . . . .	37.0	21.8	8.6	78.2
Alfalfa hay . . . . .	19.6	39.0	.9	51.6
Corn fodder . . . . .	3.0	47.3	1.5	53.7

The relative price of feeds must always be taken into consideration, and the feeds purchased which supply the necessary nutrients for the least money. On the basis of the prices quoted and the nutrient value of the feeds, we calculate that a hundred pounds of digestible nutrient material can be purchased in oats for \$2.84, in bran for \$2.62, in cottonseed meal for \$3.70, and in alfalfa hay for \$2. Because of the variable quality of corn fodder and the fact that no price was given, a similar calculation could not be made for this feed. It probably supplies nutrients, however, cheaper than any of the feeds mentioned, and good use can be made of this material in the ration.

If all feeds contained the different nutrients in the same proportions, the working out of rations would be a much simpler matter. A cow giving twenty-five or thirty pounds of milk daily must have from two to two and a quarter pounds of digestible protein in her daily feed. It would be easy to find a combination that would satisfy the cow but would not contain that much protein, so milk production would necessarily fall off.

The nutrients found in the corn fodder will vary greatly according to the way in which it is handled. Some corn fodder is hardly worth hauling out to the stock and the best fodder is low in protein. Well cured fodder cut at the proper time and containing all the leaves and fine parts, makes a good roughage, and the threshed fodder with alfalfa may well form the basis of the ration fed to these Jersey milk cows the coming season. We would suggest about twelve pounds of alfalfa and fifteen pounds of the shredded fodder as the average daily allowance for each cow. Each cow should be encouraged to eat all she will of the rough feeds, as the nutrients are supplied in the hay and fodder much cheaper than in grain. Figuring the fodder at about \$6 a ton, and alfalfa at \$20, these amounts will represent a cost or value of about 16 cents a cow daily. Grinding the alfalfa into meal is not likely to be economical unless it can be done at little cost. The cows as a rule can grind their own hay much cheaper than it can be ground for them.

A cow giving twenty-five or thirty pounds of 4 1/2 per cent milk daily cannot keep up this flow of milk on roughage alone. We would suggest a mixture of two pounds bran, two pounds oats, and

one pound cottonseed meal for a grain ration, or possibly four pounds of oats to one pound of cottonseed meal. The cost of the first mixture will be about two cents a pound. Feed enough of the grain to keep the cows from falling off in milk or getting thin in flesh. The amount to feed each cow can best be determined by keeping individual milk records. A great deal of valuable information can come from a careful study of a milk record. In fact it is almost impossible to feed a herd of cows intelligently without individual milk records. Without the records the tendency is to feed all the cows alike. Some will get too much and some too little.

Those who would make a careful study of the feeding question should get copies of bulletins or books giving the figures on the nutrient value of the different feeds. These can be obtained of the Federal Department of Agriculture at Washington, D. C., or from our own experiment station at Manhattan.

Our correspondent speaks of the feeds he mentions as all protein feeds. Reference to the table giving the digestible nutrients found in these feeds will show that he is mistaken in this statement. As a matter of fact very common feed contains a much larger proportion of carbohydrates and fats than protein. There is very little danger of feeding a combination of feeds that will be over-balanced on the protein side. Only by feeding heavily of cottonseed or linseed oil meal is this possible. Molasses is of course a carbohydrate feed, its nutrient value being mainly in the sugar it contains. Very seldom is any combination of farm feeds so low in carbohydrates as to make it profitable to use molasses unless as an appetizer. A number of commercial feeds on the market contain a small quantity of molasses, this being its chief function. A little molasses thinned with water and sprinkled over low grade fodder or hay may induce stock to eat it with a keener relish.

Just by way of suggestion, we have figured out a sample ration such as ought to approximate, at least, the requirements of our correspondent's cows giving twenty-five pounds of milk daily:

	Carbohydrates		Fat	Cost
	Protein	Carbohydrates		
	Lbs.	Lbs.	Lbs.	
Bran, 2 lbs. . . . .	.25	.822	.05	\$.022
Oats, 2 lbs. . . . .	.194	1.04	.076	.048
C. S. meal, 1 lb. . . . .	.37	.218	.086	.0275
Alfalfa, 12 lbs. . . . .	1.27	4.68	.108	.12
Stover, 15 lbs. . . . .	.045	7.09	.225	.045
Totals . . . . .	2.129	13.848	.555	.2645

The different nutrients are here supplied in about the right amounts and proportions for a cow giving twenty-five pounds daily of 4 1/2 per cent milk. As the quantity of milk increases, the proportion of protein must be increased, and that would follow as the result of increasing the amount of the grain combination suggested. Of course since the nutrients are supplied most cheaply in the alfalfa and fodder, we might say simply feed more of these to the cow having the large capacity for milk production. The most profitable cows do have a large capacity for handling rough feed, but there is a limit to any cow's capacity to digest roughage. It should always be the aim to tax each cow's capacity for handling rough feed to the limit, but when that point is reached our well-bred dairy cows have still more capacity for turning feed into milk, providing additional nutrients are supplied in concentrated form.

## Getting Started in Dairying

Experience with dairy cattle is the main essential to success in this business. The dairyman must not only be a good judge of cattle, but he must understand how to feed and care for stock in such a manner that will bring best results.

In selecting a breed, one should consider the question from a community standpoint. If there is a certain breed already in the community it is advisable and wise to adopt it and develop the best herd possible. Communities should be organized and farmers and dairymen co-operate more extensively in the development and raising of pure-bred animals. In communities where there are only a few cows it is advisable to purchase a bull for general community service. Farmers are not only aided in disposing of their animals, but feed may be purchased together or extensive advertising of their stock in

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farm papers can be more economically handled.

One should not start with pure-bred cattle at first unless he has had experience. It is advisable to buy a few good grade cows of some particular breed, and with a pure-bred bull, grade up the herd. A bull backed by good individuals and excellent dairy records should head the herd.—J. B. FITCH, K. S. A. C.

H. L. Hildwein, emergency demonstration agent, started his work in Kingman County by making germination tests of seed wheat for a number of farmers. He reports that much ground is being prepared for wheat in that county. Kingman County corn and sorghums were revived by the late rains.

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## Sixty Per Cent of Living From Farm

**U**NDER modern conditions too much of the food of the farm family is purchased over the counter. This fact is generally known, but just how far short the farm falls of producing its share of the living expenses has not been known. A series of farm surveys made in Missouri indicates that most farms produce only 40 per cent of the family living. The average family living expense on 191 farms in one of the best farming regions of Missouri are: Cash expenses, \$316; furnished by the farm, \$239.80. The products furnished by the farm were divided as follows: Meat, \$98.21; dairy products, \$48.24; poultry used as meat, \$35.09; vegetables, \$34.45; eggs, \$23.81.

In another farming region where the land is not quite so high priced and where it does not yield quite so well, the farm living expenses were: Cash, \$233; products furnished by the farm, \$173.80. The farm products were divided as follows: Meat, \$57; butter and milk, \$45; vegetables, \$26.20; eggs, \$24.40; poultry used as meat, \$20.20.

Figures from two households in 1914, the year in which the survey was made, show the following living expenses, there being four in the family and a hired man kept a portion of the time: The total family living expense was \$412.38. The produce furnished by the farm was: Milk, \$95.80; eggs, \$38.17; chickens eaten, \$14.79; pork, \$37; fruit, 65 cents; vegetables, \$10.50—total \$196.91. The cash expenses were: Groceries, \$84.06; clothing, \$109.57; labor, \$7.50; general household expenses \$14.34.

The second family comprised three adults. The farm furnished milk, butter, eggs, and meat worth \$347.12, fruit and vegetables \$31.45. The family purchased groceries worth \$110.93; clothing, \$48.83; miscellaneous, \$38.66, and paid out \$14.48 for labor. The total family living was \$592.47.

A study of these records together with the records from the larger regions show, first, that the farm furnishes about 40 per cent of the farmer's living in normal times; second, the farm produces very little in the way of fruit; third, the figures from the first farm on which detailed living expenses were furnished indicate that a larger use of fruit and vegetables might have cut down the cash expenses. There is no reason why the farm should not provide at least 60 per cent of the living. The farmer generally grows all of the fruit and potatoes he uses, but he does not usually take advantage of the opportunity to preserve vegetables, other than potatoes, for winter and early spring use. He can produce the same article or a substitute which he ordinarily purchases.

While the foregoing figures were collected in Missouri, they are probably representative of a wide territory in the United States. The average farm could produce at least 20 per cent more than it does of the farm living expense.

### Storing Potatoes in Basement

In the furnace-heated house the basement is too warm for vegetable and fruit storage. To overcome this, build in the coldest corner a room, using 2x4 matched sheathing lumber and making a double wall. The air space acts as an insulation, preventing changes in temperature. There should be two outside windows, and two wooden air ducts should be made connecting with the outside air through one of the windows. One of these air ducts should extend to the floor, and the other should have its lower end about four feet from the floor. For potato storage make a rack against one wall to support slatted bushel crates.

In operating a cold room in a basement an accurate thermometer is neces-

sary. The cold of the early winter does not penetrate the cellar, and during this period the ventilator, or a window, may be left open. When the temperature of the cellar falls to 41 degrees and a cold snap threatens, the cellar must be closed tight. On mild winter days the window or ventilator may be opened and the cellar temperature lowered and the air freshened.

Toward spring the potato shows inclination to sprout. The sprouts should be rubbed off. When there are signs of rotting, the potatoes should without delay be examined and picked over. It often happens that the potatoes are wet and slimy from the presence of rotting tubers. This unpleasant condition may be remedied by spreading out the tubers and air-drying; or dry sand, sawdust, or ashes may be used to dry them.

### Federal Farm Loans

The Federal Farm Loan Board has recommended that the federal land banks limit their mortgages to thirty-six years. Under the law, mortgages are permitted to run from five to forty years at the option of the borrower, but the thirty-six-year maximum has been recommended by the board because it will greatly simplify the keeping of records.

A mortgage given for thirty-six years at 5 per cent may be wiped out during that length of time by annual payments equal to 6 per cent of the principal. The average interest rate on farm mortgages throughout the United States, under the old regime, has been 7.4 per cent. That rate was for interest alone. At the expiration of those mortgages the entire principal fell due.

Under the Farm Loan Act, annual payments of only 6 per cent will take care of both the interest and principal and the borrower will never have his mortgage fall due, and never be compelled to meet any payment in excess of 6 per cent of the principal.

The Federal Farm Loan Board has also recommended that these amortization payments be made semi-annually, which means that 3 per cent on the principal will be paid every six months.

The minimum loan granted under the Farm Loan Act is \$100. To retire a mortgage of \$100 in thirty-six years the borrower would make semi-annual pay-

ments of \$3 each. With that as a basis any borrower or prospective borrower in the United States is able to compute his semi-annual payment on a mortgage of any size up to \$10,000, the maximum permitted under the Act. For instance: If the proposed loan should be for \$1,500, the borrower would simply divide \$1,500 by 100. The result would be 15. He would then multiply 15 by \$3. The result would be \$45 as the semi-annual payment to retire, interest and principal, a thirty-six-year mortgage of \$1,500 at 5 per cent.

It should be borne in mind that any borrower under this Act is permitted to pay off all or any part of his mortgage after it has run five years. So the borrower who takes his mortgage for thirty-six years gets the benefit of smaller payments during the first five years and then has the privilege, after five years, of paying all or any part of it in amounts of \$25 up on any interest paying date.

### Use Phosphates with Manure

Barnyard manure is a most valuable fertilizer, but it is not properly balanced for most of our soils needing additional plant food material.

With respect to the needs of the average Eastern Kansas or Missouri soil, manure is markedly deficient in phosphates. To be sure, where large quantities of manure are available, there is no better fertilizer, but even in this case if it is reinforced with phosphates, either acid phosphate or raw rock phosphate, greater returns will be secured. Where only moderate amounts of manure are available the addition of phosphates is much more important.

Tests by the Missouri Experiment Station have shown very large returns from adding 40 to 80 pounds of acid phosphate or raw rock phosphate to each ton of manure applied. One of the best ways to do this, according to Prof. M. F. Miller of the Missouri station, is to scatter the phosphate on the load just before spreading, or it may be scattered on the manure in the shed or pile from time to time as the manure accumulates. Where cattle are fed on the land, the phosphate may be scattered broadcast before plowing.

Experiments have indicated that at

# What Will Be Your Reply?

Will you be a U. S. backer, or

Will you be a U. S. slacker?

To win this war it requires a vast amount of money, and if we don't win it, your home, your farm, your life, your rights, your liberty become subject to ruthless destruction.

To raise this money, your Government calls upon you for a loan. It does not ask you to give money—simply to lend it and in return gives you a U. S. Government Bond, the best security on earth, on which you draw interest, greater than bank interest, free from taxation, except inheritance and income surtax.

## What Will Be Your Reply?

Here is an opportunity to show your patriotism and at the same time get on the Government's pay-roll.

Here is an opportunity for you to "do your bit" and show to the world that the American farmers are still the "backbone" of their country.

Here is an opportunity to say to your nation's enemies, in language none can fail to understand, that "money talks"—and that America knows no defeat and that we intend to wipe militarism and despotism off the face of the earth and finally insure a lasting peace.

## What Will Be Your Reply?

Do you know that the total value of the 1917 crops is estimated by Government officials at \$17,000,000,000—nearly six times the amount of "The Second Liberty Loan of 1917"?

Do you know that the increase in the value of the 1917 crops over 1916 is \$2,000,000,000—almost equalling this Second Liberty Bond issue?

Don't you think then, that the American farmers ought to "respond" liberally to their Government's call, especially when they get 4% interest on their investment?

## What Will Be Your Reply?

You owe it to your country to "reply" with a subscription for as many bonds as you have money to spare.

You owe it to your country to "buy Liberty Bonds" as evidence of your patriotism.

You expect your country to "protect" your life, your home and your liberty.

Your country expects you to do your share toward that end by helping to maintain its credit by lending it your money in this critical hour.

## What Will Be Your Reply?

The New Liberty Bonds will be issued in denominations of \$50 and up. The total amount is \$3,000,000,000 or more.

The interest rate is 4% paid semi-annually on November 15 and May 15. They can be paid for in installments: 2% on application; 18% on November 15; 40% on December 15; 40% on January 15, 1918. They are 25-year bonds, redeemable in ten years.

They carry a conversion privilege and can be changed for any higher interest bearing bonds issued at any succeeding time during the war.

They are exempt from taxation except inheritance and income surtax. The practical effect of this is to exempt holdings up to \$5,000.

The subscriptions will start Monday, October 1, and close October 27.

## Buy Your Bonds Today!

Don't put it off a moment. You have nothing to risk. Fill out the application below at once. Send it in to the publisher of this paper and you will have answered your country's call loyally, patriotically and also answered YOUR NATION'S ENEMIES in a way that will bring peace the quickest and most lasting.

If you want to buy, say one \$50 bond and wish to pay for it on the installment plan, you send with your Application Blank 2% or \$1.00; then on November 15 you remit the 18% or \$9.00; on December 15 you send \$20, and on January 15, \$20.00, making a total of \$50. If you buy two or more bonds your payments increase two or more times.

Don't sit back—slacking—wishing for peace. Wish-bones are mighty poor back-bones. YOU, the farmers, if worthy of being credited as the "backbone of our nation," must furnish the backing.

## Do It Now!

### Application Blank for New Liberty Bonds

KANSAS FARMER  
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I hereby subscribe for.....New Liberty 4% Bonds.  
(No. of Bonds)

Enclosed find \$..... (You can send amount in full or first payment of 2% of total amount of bonds subscribed for.)

Please have bonds sent to following name and address:

Name of purchaser .....

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normal prices of phosphates, the acid phosphate is probably to be preferred. At present prices, however, there is little choice between the two, but the preference probably would go to the rock phosphate. Where the manure is carefully conserved, where rotation is practiced and clover or some other legume is grown frequently, the use of phosphates with manure will greatly increase the net returns, and this is really the only form of commercial plant food that need be seriously considered. Lime may of course be necessary at times to keep the soil sweet.

with hickory, oak, apple, or any non-resinous wood. Avoid all wood of the pine family. With a continuous smudge the smoking can be completed in twenty-four hours. With intermittent smoking longer time is necessary, as cold meat "takes the smoke" slowly. Wrap the meat to keep it away from the skippers. If rats or mice get at the meat they open the way for the skippers. In damp weather cured meats will mold. This is not injurious except it is advisable to use up shoulders, as the mold grows in the cracks and calls for excessive trimming.

**Methods of Curing Pork**

Hog-killing time will soon be here. Probably many more people than usual will try to lay by a good supply of meat for use the coming winter. Here are two methods of curing pork:

**Dry Cure.**—Do not cut up the pork till the carcass is well chilled. Make a mixture of clean fine salt forty pounds, white or brown sugar ten pounds, white or black pepper four pounds, red pepper one-half pound. This will make enough cure for about a thousand pounds of pork. If saltpeter is desired, use two pounds in the above mixture. It will give a red color to the lean meat but has a tendency to harden the meat too much. Chili saltpeter may be used instead of the regular saltpeter by taking about 20 per cent less.

Rub each piece of meat thoroughly with the cure. Take special care to work the cure around the ends of bone of hams and shoulders. Pack skin side down on a table or in a box in a cool airy place. Do not place in direct sunlight or in a damp musty cellar. After four or five days overhaul the meat; rub thoroughly with the cure, and repack. Repeat this in about a week. Hams and shoulders should remain in the cure from one and one-half days to two days per pound weight of piece; the latter time is safer for meat that is to be kept during the summer. Bacon should be in the cure a shorter time. Ten days will give a very nice mild cure to a six or eight-pound piece.

**Brine Cure.**—Make a brine by boiling seven pounds of clean salt and two pounds of white or brown sugar with two gallons of water. If saltpeter is desired add one-fourth pound. This gives about enough to cover 100 pounds of pork when well packed. Sprinkle a little clean fine salt in the bottom of the barrel, rub each piece of meat lightly with the salt, sprinkle a light layer of salt between each layer of meat. Put on a board and weight down with a rock. Allow to stand over night. Tip barrel on side and allow the liquor to run out. Cover the meat with the cold brine and allow to stand in a cool place four or five days. Overhaul, repack, and cover with the same brine. Repeat in about a week. Give the meat the same length of time for curing as with the dry cure.

When the curing is complete wash off the excess cure and hang in the smoke-house. Meat kept in the cure too long should be soaked in warm water to remove the excess of the cure. Smoke

**Buy a Liberty Bond**

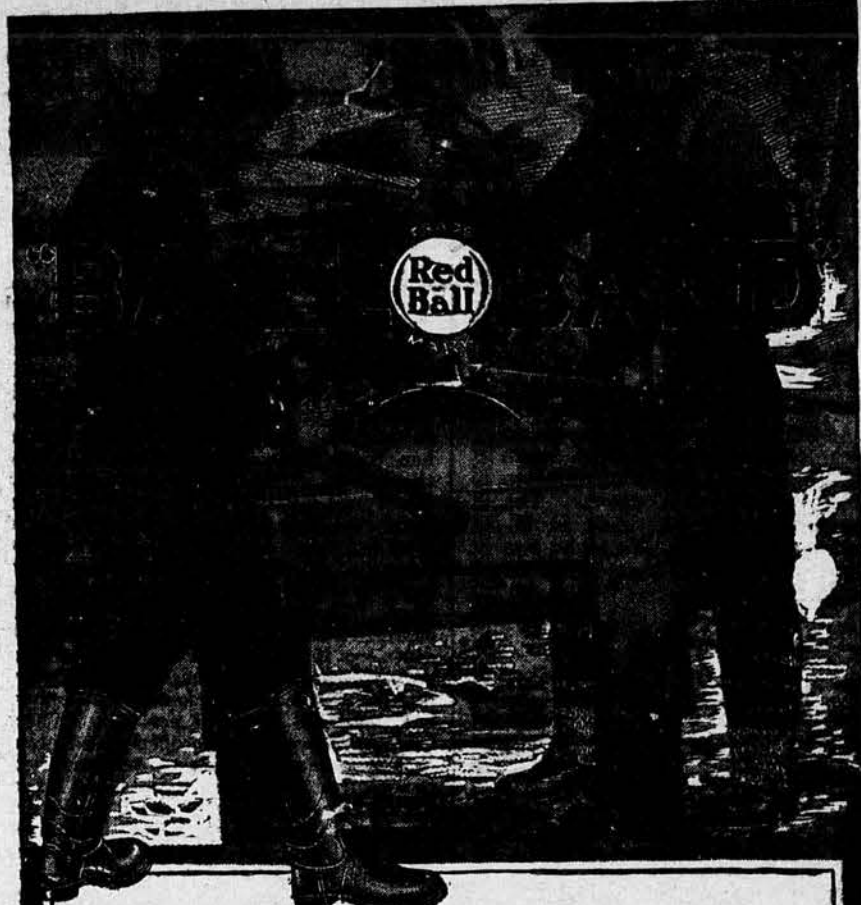
There is now offered to the American people a new issue of \$3,000,000,000 of bonds to be known as the Second Liberty Loan. They will be issued in such denominations and upon such terms that every patriotic citizen will have an opportunity to assist the Government by lending his money upon the security of a United States Government bond.

It is essential to the success of the war and to the support of our gallant troops that these loans shall not only be subscribed, but oversubscribed. No one is asked to donate or give his money to the Government; but everyone is asked to lend his money to the Government. The loans will be repaid in full with interest at the rate of 4 per cent per annum. A Government bond is the safest investment in the world; it is as good as currency and yet better, because the Government bond bears interest and currency does not. No other investment compares with it for safety, ready convertibility into cash, and unquestioned availability as collateral security for loans in any bank in the United States.

People by thousands ask the Treasury constantly how they can help the Government in this war. Through the purchase of Liberty Bonds every one can help. No more patriotic duty can be performed by those who cannot actually fight upon the field of battle than to furnish the Government with the necessary money to enable it to give our brave soldiers and sailors all that they require to make them strong for the fight and capable of winning a swift victory over our enemies.

To secure the ends for which we are fighting, Secretary McAdoo appeals to every man and woman who resides upon the soil of free America and enjoys the blessings of her priceless institutions to join the League of Patriots by purchasing a Liberty Bond.

The confidence put in county agricultural agents in those counties where such agents have been at work for several years is shown by the insistence of the Jewell County farmers that seed wheat bought outside their own county be obtained from counties having agricultural agents and that the agents supervise the loading of the wheat. The reason given by the farmers for this requirement is that they have faith in the agents' ability to select good seed and have no hesitancy in relying upon them for this service.



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The "Ball-Band" Coon Tail Knit Boot is knit not felt and has the original "Ball-Band" snow excluder feature. It is completely shrunk and represents the limit of protection from wind, slush, and cold.

Look for that Red Ball whenever you buy Rubber Footwear and you can depend on the greatest number of days wear at the lowest cost per days wear.

Write for free illustrated booklet "More Days Wear" describing the different kinds of "Ball-Band" Footwear your dealer can show you.

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"The Horse That Pays Millions for Quality"

**Feed the Fighters! Win the War!**  
Harvest the Crops! Save the Yields!

On the battlefields of France and Flanders the United States boys and the Canadian boys are fighting side by side to win for the World the freedom that Prussianism would destroy.

While doing this they must be fed and every ounce of muscle that can be requisitioned must go into use to save this year's crop. A short harvest period requires the combined forces of the two countries in team work, such as the soldier boys in France and Flanders are demonstrating.

**THE COMBINED FIGHTERS IN FRANCE AND FLANDERS AND THE COMBINED HARVESTERS IN AMERICA WILL BRING THE ALLIED VICTORY NEARER**

A reciprocal arrangement for the use of farm workers has been perfected between the Department of the Interior of Canada and the Departments of Labor and Agriculture of the United States, under which it is proposed to permit the harvesters that are now engaged in the wheat fields of Oklahoma, Kansas, Iowa, North Dakota, South Dakota, Nebraska, Minnesota, and Wisconsin to move over into Canada, with the privilege of later returning to the United States, when the crops in the United States have been conserved, and help to save the enormous crops in Canada which by that time will be ready for harvesting.

**HELP YOUR CANADIAN NEIGHBORS WHEN YOUR OWN CROP IS HARVESTED**

Canada wants 40,000 Harvest Hands to take care of its 13 Million Acre Wheat Field

One cent a mile railway fare from the International Boundary line to destination and the same rate returning to the International Boundary. High wages, good board, comfortable lodgings.

An Identification Card issued at the boundary by a Canadian Immigration Officer will guarantee no trouble in returning to the United States.

AS SOON AS YOUR OWN HARVEST IS SAVED, move northward and assist your Canadian neighbor in harvesting his; in this way do your bit in helping "Win the War."

For particulars as to routes, identification cards and place where employment may be had, apply to Superintendent of Immigration, Ottawa, Canada, or to

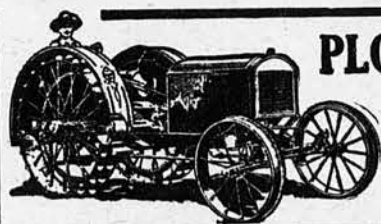
GEO. A. COOK, Canadian Government Agent, 2012 Main St., Kansas City, Mo.

**Rainfall Over Kansas for September**

Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka

Cherokee	3.43	Barber	2.86	Beckham	4.31	Butler	2.28	Cherokee	2.80	Cherokee	2.59	Cherokee	3.06	Cherokee	1.21	Cherokee	2.05	Cherokee	3.26	Cherokee	3.22	Cherokee	1.60
Cherokee	2.77	Cherokee	2.86	Cherokee	3.19	Cherokee	1.38	Cherokee	2.80	Cherokee	2.59	Cherokee	3.06	Cherokee	1.21	Cherokee	2.05	Cherokee	3.26	Cherokee	3.22	Cherokee	1.60
Cherokee	2.71	Cherokee	3.78	Cherokee	2.43	Cherokee	1.19	Cherokee	3.77	Cherokee	1.45	Cherokee	3.03	Cherokee	0.88	Cherokee	1.15	Cherokee	1.63	Cherokee	2.28	Cherokee	4.38
Cherokee	1.65	Cherokee	1.13	Cherokee	1.96	Cherokee	3.46	Cherokee	1.84	Cherokee	1.25	Cherokee	0.50	Cherokee	0.78	Cherokee	1.57	Cherokee	2.26	Cherokee	3.26	Cherokee	3.33
Cherokee	3.59	Cherokee	1.83	Cherokee	2.22	Cherokee	1.87	Cherokee	2.12	Cherokee	0.44	Cherokee	1.74	Cherokee	0.68	Cherokee	0.82	Cherokee	1.67	Cherokee	2.26	Cherokee	3.70
Cherokee	3.37	Cherokee	1.35	Cherokee	1.58	Cherokee	1.24	Cherokee	1.52	Cherokee	0.44	Cherokee	1.74	Cherokee	0.68	Cherokee	0.82	Cherokee	1.67	Cherokee	2.26	Cherokee	3.70
Cherokee	1.54	Cherokee	0.71	Cherokee	2.86	Cherokee	0.56	Cherokee	0.36	Cherokee	5.68	Cherokee	1.57	Cherokee	1.64	Cherokee	0.92	Cherokee	1.86	Cherokee	3.03	Cherokee	3.33
Cherokee	1.14	Cherokee	2.16	Cherokee	4.19	Cherokee	1.75	Cherokee	4.14	Cherokee	5.31	Cherokee	4.71	Cherokee	2.17	Cherokee	1.57	Cherokee	4.53	Cherokee	1.23	Cherokee	3.06

SEPTEMBER rains this year were very irregularly distributed over Kansas, but were sufficient to keep crops growing nicely and put the ground in splendid shape for fall seeding, except in a few north central and southwestern counties, which failed to get as much as an inch during the entire month. Combined with the rainfall of last August, this made the wettest two-months period in more than a year's time and one of the heaviest amounts that has fallen in August and September together since the state record was begun thirty-one years ago.



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### A Sermon Picture

A SHORT time before the above picture was taken, there was a \$5,500 barn between the two silos. It burned down. The silos were unharmed. Ask E. H. Salisbury, Kirksville, Mo., who has since erected a new barn, what he thinks of the silos.

### Consider the Silo

With forty per cent of the food value of corn in the stalks and leaves, silos are an economic necessity on the modern farm. Any agricultural leader, farm expert or banker can give a hundred reasons for silos. In these times of conservation and efficient food utilization—when grain prices are sky high, the silo is a money-maker from the start.

### And the Concrete Silo

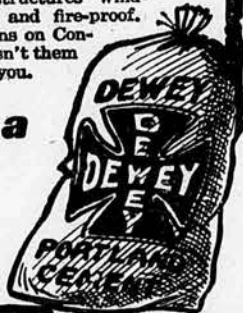
is the one that stays put; that storms, fires, rats, cannot touch. Concrete means reasonable in cost, no repairs, no repainting, no maintenance. Concrete means permanence and dependability.

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is the popular cement for town and country improvements. Get in touch with the Dewey Dealer and let him show you how you can make your farm structures wind-proof, vermin-proof and fire-proof. Ask him for bulletins on Concrete Silos. If he hasn't them he will get them for you.

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Grab your chance to make good money this Fall and Winter. Biggs at Kansas City will tell you how and will help you do it. Herman Johnson made \$731.58 in 3 months last season trapping in odd times and selling the furs to "Biggs at K. C."



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The Sunshine Safety Lamp Co., 405 Factory Bldg., Kansas City, Mo., is offering to send a new portable lamp which, experts agree, gives the most powerful home light in the world, on trial to any user. They want one person in each locality to whom they can refer new customers. Take advantage of this offer. Write them today.



### Egg Profits This Winter

PERHAPS no more important question presents itself to the poultryman this fall than that of feeds. Many are at a loss to know whether it will be possible to feed at a profit when we consider the prevailing high prices for grains. From figures at hand it will cost not far from \$2 to feed a hen for a year. This is about double the cost in normal times. Allowing that a hen will lay 120 eggs the coming year, which is not far from the average where hens are cared for as they should be, we have an income of \$3.50. This is allowing 35 cents as the average price for eggs. The past year the average in the eastern part of the state has been 30 cents, so it is not out of reason to expect 35 cents for the coming twelve months. Based on these expectations we have a profit of \$1.50 per hen. Where hens have been kept properly and accurate accounts kept in past seasons, better profits than this have been made. These figures are where all feeds are purchased and the hens kept in limited runs. It does not cost as much where chickens are allowed free run of the farm, neither can we expect as high an egg production as given above. But where all costs and receipts are considered it is not at all out of reason to figure on a profit of one dollar per year even with the high prices of grain we now have.

There is no reason to become panicky and sacrifice fine young pullets just because it costs a little more than usual to feed them. There will be a good profit in them this winter if good common sense is used in their care and feeding. We must not expect that a hen will shell out eggs if we confine her to a single grain diet. No hen can make eggs from any one grain. It is true she may lay a few eggs, but it will not be intentionally, but only an accident. If we are to get eggs we must understand the grain requirements for egg production. First the yolk of the egg is formed. This is composed largely of fats so it will be necessary to give grains rich in fat-producing elements, such as corn.

Some hold the idea that a hen must not be too fat or she will not lay. No hen was ever too fat to lay if she was compelled to exercise freely for her feed. She may get her feed in such an easy manner that her liver becomes deranged, in which case, because of the unhealthy condition of the liver, she cannot lay. It is not because of the fat, but because of her lazy, torpid condition. Make her work for all her grain feeds. There is a co-relation between a hen's legs and her liver; the faster her legs go, the better her liver acts, and if her liver is in good condition she will not be too fat to lay. After a sufficient amount of fat producing grains have been given, we must provide the elements that go to the making up of the white or albumen of the egg. There is nothing better for this than a liberal supply of sour milk. Milk not only goes to the production of the white of the egg, but it has a very beneficial effect on the appetite and general health of the bird. You cannot give chickens of any age too much milk. Where milk is not available, a rabbit twice a week for each hundred will answer. This should be chopped up or hung up so the hens will have to jump to get it, and should be fed in the raw state. When it is necessary to buy feeds for this purpose the most convenient product is commercial beef scrap, which can be purchased from any good feed store or ordered direct from the packing houses. It will cost around \$4.50 per hundred pounds but is worth the price for egg production. Condensed buttermilk, which can be purchased in barrel lots, is also valuable as an egg builder. This should cost not far from \$5 per barrel. Bran, shorts, alfalfa and tankage are largely used where hens are kept for winter eggs. The hen cannot complete a large number of eggs without a liberal supply of material from which to construct egg shells. Other animals can get all the ash that the system requires from grains, clovers, alfalfa and the like, but not so the hen. When a hen lays from twenty to twenty-

five pounds of eggs in twelve months she has to receive some form of lime in a very available form. Commercial oyster shell is the common and most convenient form in which to supply this need. If a supply of soft limestone is available, it will to a large extent furnish shell material.

At present prices a good egg ration will read something like this: By weight—Corn (cracked), three parts; oats, one part. This mixture to be scattered in straw or hay where the hens will be compelled to scratch for every kernel. With this a mash composed of three parts bran, two parts shorts and one part beef scrap or tankage may be fed dry, as much as the hens will eat readily without wasting it. Where the beef scrap is omitted all the sour milk the hens will drink should be given. Ground oats may be added to the mash with good results. This is only a suggested ration and may be varied to suit the feeder. Do not feed nice plump wheat. The hen is not a bakery and does not need the flour. All she can profitably use is the bran and shorts.

Above all, when working for eggs feed the hen well and keep her in dry houses free from drafts and make her work. It is the busy hen that sings. And the singing hen lays the golden egg. Never allow the hens to bunch on the sunny side of some building. This is an indication that they have all they want to eat and are putting on fat. If we wish a hog to lay on fat, we feed him and ask him to please lay down and keep quiet. Just so with the hen. When she eats and sleeps, look out for torpid livers and a funeral.—N. L. H.

### Learn to Cull Poor Layers

All poor layers should be culled from the poultry flock in the early fall. In a year when high prices of feed prevail it is essential that all non-producers be removed from the flock. The only accurate method to locate the layers is the use of the trap nest. This, however, requires too much time and expense for the average poultryman.

A satisfactory way is to feed the hens liberally at night, and then pass through the house after the birds have gone to roost, feeling the crop of each bird. Those that are laying will have well filled crops, while those not laying or in poor condition will eat much less feed.

All hens found sitting on the roost in the daytime are boarders and should be disposed of immediately. In yellow-legged varieties the yellow color will practically disappear while the hens are laying. In some instances, in fact, the legs will even be white.

Another strong indication of heavy egg production is late molting. Contrary to the prevailing opinion, the hen that molts early and is a fine looking bird early in the fall, is not the one which has been filling the egg basket. The late molter sheds her coat quickly, often being almost entirely naked. Such hens should be carefully fed and kept for breeders the following season.

All immature pullets and hens that do not appear to be in good health should be disposed of as soon as possible. Only those birds showing unmistakable signs of producing eggs throughout the winter and spring should be kept, if profitable returns are to be expected from the feed given to poultry this season.—N. L. HARRIS.

Fall rains, damp and unclean roosting quarters, poorly ventilated houses, and exposure to drafts every year bring about the same poultry complaints—colds, catarrh, roup, diphtheria, pneumonia, and indirectly many more diseases. The result is that 5 to 10 per cent of the stock dies, and egg production drops off. To remedy this, new buildings should be constructed or old houses remodeled to insure dry floors, plenty of sunlight and fresh air, and sanitary arrangements. In erecting new buildings, select a well-drained site. Place floors at least six inches above the grade. Use a muslin front or wind baffle to break drafts, and clean out droppings every week.

### ONE MILLION DOZEN EGGS SHIPPED TO EUROPE

—Reports State Department of Agriculture. And George L. Dillingham, past master of the New Jersey state grange, predicts eggs will go to \$1.00 a dozen.

Cash in on your hens. You can increase laying and improve the health of your layers with Sloan's Liniment, discreetly mixed with food. Write us for full directions and convincing testimonials of the effectiveness of this remedy in epidemics of roup, bumble foot and other poultry ailments. Instructions Free.

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## SHEEP CLEAN UP WASTE

**S**HEEP are great conservers of farm wastes. "I would not know how to do good farming without sheep," said George McKerrow, of Wisconsin, one of the best and most widely known sheep breeders of America, recently. "Why?" he continued. "Because my sheep use up the wastes of the farm. They clean up the grass, weeds, brush and gleanings, and in so doing turn into cash what otherwise would be lost."

Mr. McKerrow knows sheep and his knowledge comes from a broad experience gained in fifty-one years of breeding them. His is a story filled with romance, faith and devotion to an ideal that covers a span of years from the time an eight-year-old farmer lad, who had saved his pennies and nickels and bought an aged ewe, which in turn produced two ewe lambs, down to the present, when thousands of sheep "eliminate the waste" on his 2,300 acres.

"Sheep," said Mr. McKerrow, "make the most economical gains of any kind of live stock, because they clean up the odds and ends. They are particularly useful on the farm in the fall of the year, for they turn into mutton the things that otherwise would not be used. At the same time they save the feed-stuffs that would be given them if they did not have access to these other things."

After harvest, Mr. McKerrow's sheep are turned into the oats fields for a few hours the first day; an hour or two longer the second day; and the time gradually increased until at the end of a week they have complete possession of the fields. The lambs are permitted to enter the corn before it is cut and they clean up on the weeds and lower corn plant leaves. The lambs do not pull down the lower ears of corn as do the mature sheep. Roots are grown for the cattle and sheep on Mr. McKerrow's place, and after the larger roots are hauled in to storage for winter use, the sheep are turned into the field and eat the smaller ones that remain. Both the sheep and lambs are turned into the aftermath of the meadows and this brings them into winter quarters in good condition.

Another profitable practice on this farm is that of plowing up fields that become weedy after harvest. These fields are sown to rape and turnips, and later the sheep are turned in. They eat the rape and turnip tops with relish and will later hollow the meat from the turnip, leaving but a shell.

Mr. McKerrow has found that a frequent change of pasture is beneficial to the sheep. A 36-inch woven wire fence in twenty-rod lengths is moved about, thus preventing the too short cropping

of the grass, and furthermore reducing the internal parasite plague to a minimum. Water is also an important consideration, and ewes particularly should have water the same as dairy cows.

"I would not go so far as to say that there should be some sheep on every farm," declared Mr. McKerrow, "for peculiar conditions might not make it practical, but I do believe that there should be sheep on the vast majority of farms in this country. They turn waste into cash. The sort of saving that the good housewife is making in her kitchen can be practiced with corresponding effectiveness by the use of sheep on the farm."

### Feeding Demonstrations

J. C. Helmes, who has charge of the cattle and hog feeding demonstrations at the Wichita stock yards, reports that the third demonstration started October 2 and will continue until February 20. Six lots of grade Herefords and three lots of grade Shorthorn steers are being fed, the average weight per steer being about 900 pounds.

They are now being fed a ration of corn, oats, cottonseed cake, and alfalfa hay. For the first thirty days oats will be fed as the main concentrate. As soon as new corn and kafir are available, comparisons of corn, kafir, molasses feed, linseed oil meal, and cottonseed cake will be made.

The cattle will be followed by five lots of hogs, which will be started as soon as kafir is available, careful records of feed and gains being kept. The lot fed corn alone will be eliminated this time and kafir and digester tankage fed instead.

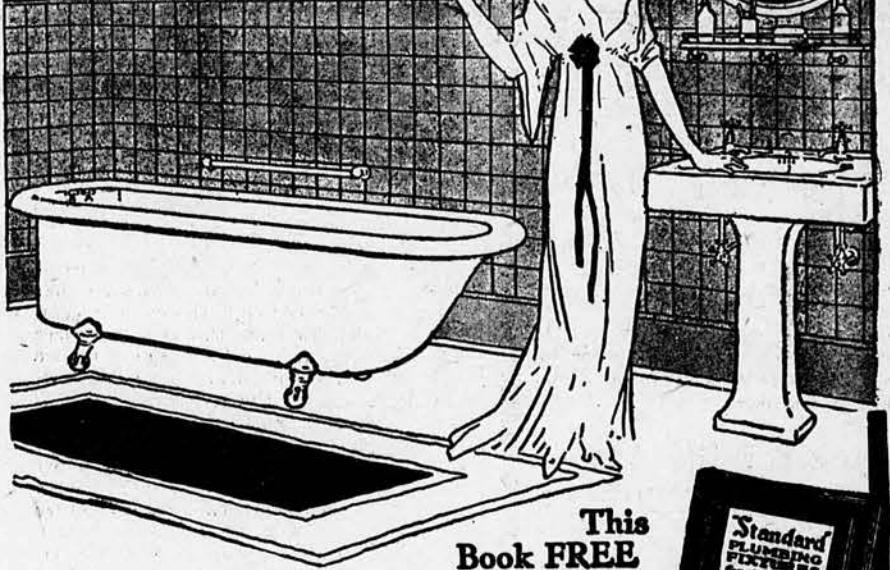
The 350 head of forty-six-pound pigs purchased the first of August made a gain of thirty-two pounds per head in sixty days on five acres of alfalfa pasture and one and one-half pounds of concentrates per head per day. The pork produced cost \$12 a hundred pounds. Corn was valued at \$2.24 a bushel, shorts \$2.80, and digester tankage \$4 a hundred pounds. A loss of 4 per cent due to vaccination, castration and handling, is included in the cost. Labor was not counted in the cost.

### Silos in Finney County

Finney County farmers are encouraged over the prospects for rough feed crops as a result of recent rains, is the report of Charles E. Cassel, emergency demonstration agent.

It is estimated that about 40,000 acres will be seeded to wheat this fall in this county. This acreage is double the amount planted in normal years. The

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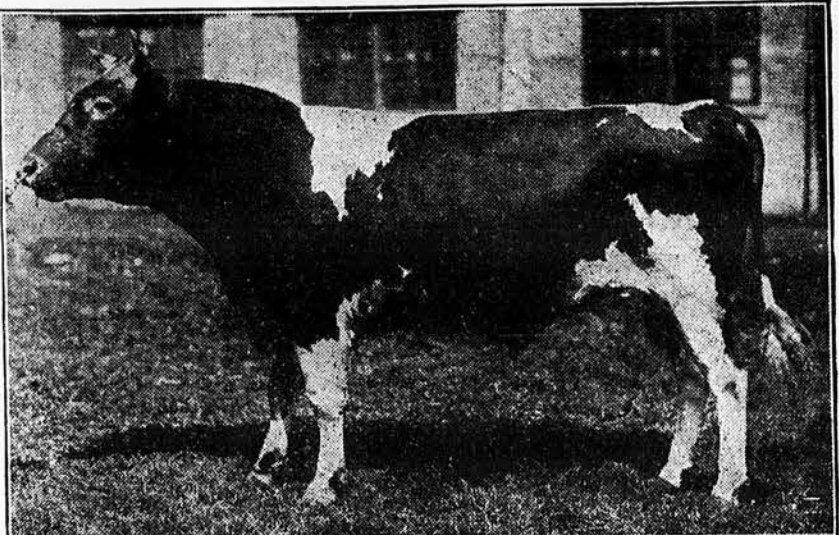
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**L**ANGWATER BENEFACTOR is the chief Guernsey herd bull at the Kansas Agricultural College. His seven nearest dams have annual butter fat records averaging 690 pounds. The annual records of his fifteen nearest dams average 680 pounds of butter fat. He was grand champion at Topeka, Hutchinson, and the Missouri State Fair, and won first in class at the Dairy Cattle Congress held in Waterloo, Iowa, last week. He will be shown at the National Dairy Show in Columbus, Ohio, October 18-27.

emergency demonstration agent has cooperated closely with the county seed wheat club.

Mr. Cassel is receiving many calls for conferences in regard to adapted crops and cropping systems. In addition to these numerous office calls ninety farm visits were made in one week.

One hundred and fifty Finney County farmers have recently signified their intention to build silos.

Thirty thousand ewe lambs have recently been bought for Kankakee County, Illinois, by J. S. Collier, county agricultural agent, as a result of the co-operation of Harry A. Wheeler, Illinois Food Administrator, and the National Sheep & Wool Bureau. These ewe lambs from Colorado and Montana will arrive in Kankakee during the next two weeks and will be distributed to many farmers who have applied for them. Director Charles Adkins, of the Department of Agriculture of Illinois, is daily placing orders or sending inquiries to the National Sheep & Wool Bureau and these orders are being filled through the clearing house committee in Chicago and other live stock markets.

### American Royal Champions

#### SHORTHORNS.

- Senior Champion Bull—Carpenter & Ross, Mansfield, Ohio, on Revolution.
- Junior and Grand Champion Bull—Uppermill Farm, Wapello, Iowa, on Villager's Coronet.
- Senior and Grand Champion Cow—W. C. Rosenberger, Tiffin, Ohio, on Viola.
- Junior Champion Cow—Bellows Bros., Maryville, Mo., on Parkdale Victoria.
- Championship Futurity Heifer—W. C. Rosenberger, on Cloverleaf Gloster.
- Championship Futurity Calf—W. E. Pritchard, Walnut, Iowa, on Dale's Reliance.
- William R. Nelson Trophy (awarded on champion calf in futurity stakes)—W. E. Pritchard, on Dale's Reliance.
- Aged Herd (consisting of bull two years or over, heifer two years old, heifer one year old, heifer calf)—1, Bellows Bros.; 2, Carpenter & Ross; 3, Rosenberger; 4, Rees & Sons, Pilger, Neb.; 5, William Herkelmann, Elwood, Iowa; 6, J. E. Kennedy, Jonesville, Wis.
- Young Herd (consisting of one bull under two years old, two heifers one year old and

- under two, two heifers under one year old; all except bull must be bred by exhibitor)—1, Bellows Bros.; 2, Rosenberger; 3, Uppermill Farm; 4, H. C. Lookabaugh, Watonga, Okla.; 5, Carpenter & Carpenter, Baraboo, Wis.; 6, W. E. Pritchard, Walnut, Iowa.
- Calf Herd (consisting of one bull and two heifers under one year old, bred by exhibitor)—1, W. E. Pritchard; 2, W. C. Rosenberger; 3, Bellows Bros.; 4, H. C. Lookabaugh; 5, Uppermill Farm; 6, Jes. Miller & Sons, Granger, Mo.
- Two Animals of Either Sex, Produce of One Cow—1, Uppermill Farm; 2, Rosenberger; 3, Pritchard; 4, Carpenter & Sons; 5, Bellows Bros.; 6, Herkelmann.
- Four Animals of Either Sex, Get of One Sire—1, Uppermill Farm; 2, Lookabaugh; 3, Bellows Bros.; 4, Carpenter & Rees; 5, Rosenberger; 6, Pritchard.
- Kansas City Stock Yards Trophy (best ten head of Shorthorn exhibited by exhibitor)—Bellows Bros.

#### HEREFORDS.

- Senior and Grand Champion Bull—W. L. Yost, Kansas City, Mo., on Ardmore.
- Junior Champion Bull—E. H. Taylor, Jr., Versailles, Ky., on Woodford 9th.
- Senior and Grand Champion Cow—Taylor, on Woodford Lady 3d.
- Junior Champion Heifer Cow—C. M. Largeant, Merkel, Texas, on Shadeland Jewel 2d.
- Aged Herd—1, Taylor; 2, Largeant; 3, Yost; 4, LaVernet Stock Farm, Jackson, Miss.; 5, H. M. Half, Midland, Texas; 6, J. H. Bereman, Aurora, Ill.; 7, Redwine Bros., Fayetteville, Ga.
- Young Herd—1, Largeant; 2, Taylor; 3, Robert H. Hazlett, El Dorado, Kan.; 4, Yost; 5, W. A. Dallmeyer, Jefferson City, Mo.; 6, LaVernet Stock Farm; 7, Half; 8, S. H. Velle, Kansas City, Mo.; 9, Carl Miller, Bellevue, Kan.; 10, Engle & Sons, Sheridan, Mo.
- Caledonia Pereda Trophy (value \$500, offered for three best bulls bred and owned by exhibitor)—Col. E. H. Taylor, Jr., Versailles, Ky.

#### ABERDEEN-ANGUS.

- Senior and Grand Champion Bull—C. D. & E. F. Caldwell, Burlington Junction, Mo., on Blackcap Bertram.
- Junior Champion Bull—Congdon & Battles, North Yakima, Wash., on Quality Lad of Rosemere.
- Senior and Grand Champion Cow—Caldwell, on Queen Milly of Sun Dance 3d.
- Junior Champion Cow—Congdon & Battles on Queen of Rosemere 5th.
- Aged Herd—1, Caldwell; 2, Congdon & Battles; 3, G. F. Cowden & Son, Midland, Texas; 4, D. H. Robertson & Son, Madison, Neb.
- Young Herd—1, Caldwell; 2, Congdon & Battles; 3, Robertson.
- Calf Herd—1 and 2, Caldwell; 3, Congdon & Battles; 4, Cowden.
- Get of Sire—1 and 3, Caldwell; 2, Congdon & Battles; 4, Robertson.
- Produce of Cow—1, Cowden; 2 and 3, Caldwell; 4, Robertson; 5 and 6, Congdon & Battles.

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Kress Bargains reach a new high-water mark of value-giving and money-saving possibilities in this handsome

Rich Black Thibet Coat **\$4.98** Delivered to Your Home  
NOW ONLY...



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**E500.** This graceful, becoming Coat, cut full and roomy, is made of a fine quality Black Thibet, a smooth fabric that closely resembles heavy broadcloth and just the right weight

for Fall and Winter wear without a lining. Cut on the smartest of lines with a large, deep collar, here pictured worn open as a cape collar. Can also be buttoned high, as desired. Large black plush buttons trim the collar, cuffs and effect the closing in front. Collar also is trimmed with two rows of stitching. Stitched half-belts join in front with a large black plush button. Two striking patch pockets on sides and all seams and edges bound with black tape. Coat is unlined. Color: Black. Sizes 32 to 44 bust. Length, 48 inches. State size.

Price **\$4.98**  
SHIPPING WEIGHT 3 1/2 LBS.

Prices of materials are going higher and higher and under present conditions this coat is an excellent value at double the price we ask. Economical women should opportunity to save.

grasp this  
**The Season's Greatest Coat Bargain**  
Entire satisfaction guaranteed or money refunded  
Send for "The Book of a Thousand Bargains."  
**IT'S FREE.**

It contains page after page of unusual bargains in women's coats, waists, skirts, shoes, millinery, etc.; also much that men and children will need for winter. Kress prices are always lowest, owing to our tremendous purchasing power. All who want to practice true economy will find our "Book of a Thousand Bargains" a true road to money saving. Write for it.



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This entire large building devoted exclusively to the prompt handling of your Mail Orders

**KRESS' MAIL ORDER STORES**  
WICHITA, KAN.

The production acreage of many a farm can be increased by drainage. Many wet areas are being cultivated which do not produce profitably and are often a hindrance in planting and proper cultivation of the rest of the field. These

places are found along the creek bottoms and on seepy hillsides. They are very fertile and can be made the most productive part of the farm by tile drainage. Such work can best be done in the fall.



We desire to make this department just as helpful as possible, and believing that an exchange of experiences will add to its value, we hereby extend an invitation to our readers to use it in passing on to others experiences or suggestions by which you have profited. Any questions submitted will receive our careful attention and if we are unable to make satisfactory answer, we will endeavor to direct inquirer to reliable source of help. Address Editor of Home Department, Kansas Farmer, Topeka, Kansas.

"A woman in so far as she beholdeth  
Her one Beloved's face,  
A mother with a great heart that enfoldeth  
The children of the race,  
A body free and strong, with that high beauty  
That comes of perfect use, is built thereof,  
A mind where reason ruleth over duty  
And Justice reigns with Love;  
A self-poised, royal soul, brave, wise, and tender,  
No longer blind and dumb,  
A human being of an unknown splendor,  
Is she who is to come."

### Clothing for School

The same common-sense simplicity should be given to children's school clothing as to their diet. This clothing should be comfortable, easy to launder or clean, should contain a pocket for the handkerchief, and be of becoming material and cut. This last point is no less essential than the others. A mother owes it to her children to teach them discrimination and taste in dressing as in other things. A child becomes painfully self-conscious if there is a great difference between his clothing and that of other children. Loud colors and badly-made clothing lessen a child's self respect and may make him careless of his behavior. Few of us can be at our best when conscious of being inappropriately dressed, and children are even more sensitive to the influence of clothing than grown people.

On the other hand there is a distinctly refining influence in well-chosen apparel. A farmer of our acquaintance says it always seems to him that even his horses work a little better when wearing a new harness. One of the signs of good breeding is to be absolutely unconscious of what one wears, and this is only possible when one feels that he is suitably dressed and therefore can afford to dismiss the matter from his mind. To be dressed with due regard to prevailing fashion, but never in extreme; to be comfortably and attractively dressed in clothing of good taste; to grow up without that intense interest in clothes which detracts from the happiness of so many, is the natural right of every child.

### Pickles

It is the usual custom to soak such vegetables as tomatoes and cucumbers in brine before putting them through the regular pickling process, though some persons prefer not to do this. The brine withdraws moisture from the tissue of the vegetable and makes it possible to obtain a firmer product, gives the desired salt taste and a milder flavor, and adds to the keeping quality of the pickle. The strength of brine required depends on the length of time the vegetable to be pickled is to remain in it. Brine may be made by adding one-third to one-half cupful of salt to one quart of water. This should be strong enough to float a fresh egg.

Grape and cabbage leaves are said to

help in retaining the natural green color of cucumbers and unripe tomatoes. The bottom and sides of the kettle are lined with leaves, the kettle is then filled with the mixture to be pickled, and the top of the mixture is covered with leaves. Two vinegar mixtures for pickles follow:

#### RECIPE 1.

1 quart vinegar  
1 1/2 teaspoonfuls whole black peppers  
1 1/2 teaspoonfuls celery seed  
1 1/2 teaspoonfuls allspice  
1 tablespoonful sugar  
1/2 teaspoonful whole cloves  
1/2 teaspoonful mustard seed  
1/2 teaspoonful cinnamon bark  
1/2 teaspoonful grated horseradish

#### RECIPE 2.

1 quart vinegar  
1/2 ounce ginger  
1 teaspoonful mace  
1 ounce small onions  
1/2 ounce mustard seed.

If pickles have not been soaked in brine, use two ounces of salt.

**Cucumber Pickles.**—Soak cucumbers in brine for twenty-four hours, then rinse and drain them. Cover with vinegar or vinegar mixture to which has been added one tablespoonful of brown sugar for each quart of vinegar. Bring them slowly to the boiling point. Pack the pickles in a jar and cover with vinegar.

**Sweet Cucumber Pickles.**—Soak cucumbers in brine for twenty-four hours. Rinse, drain, and wipe them dry. Place in a kettle, and cover with the following vinegar mixture:

1 quart vinegar  
1 cupful sugar  
8 whole cloves  
6 allspice  
8 blades mace  
8 whole black peppers.

Heat the pickles slowly to the boiling point, and pack at once.

**Quick Pickles.**—Put cucumbers in strong brine (one-half to three-fourths cupful of salt to one quart of water). Bring them slowly to the boiling point, and simmer for five minutes. Drain off the brine and cover with cold water, changing the water as it becomes warm. Keep changing the water until the pickles are crisp and cold. Cover them with a vinegar mixture made by either of the two preceding recipes.

### Jams, Jellies and Preserves

Possibly the price of butter has already suggested the use of jams, jellies and preserves in larger quantities than usual. But aside from the saving in cost, there is a national service as well.

Butter is readily transported and exported, whereas these other products, which are usually put up in glass jars, lend themselves best to home or local consumption. Eat as much as possible of the home-grown products, thus releasing foods which naturally flow in large commercial channels for shipment abroad. This policy has the endorsement of the United States Food Administration and is essentially sound.

Jams, jellies and preserves do not have the same kind of nutriment as butter and are not a substitute, but the judgment of the American housewife and



**CANNING** demonstration given by Miss Lottie Milam, of the extension division of the Kansas Agricultural College, at Washington, Kansas. One hundred women were present and during the afternoon peas, beans, beets, beet greens, tomatoes, and apples, were canned.

mother is sufficient safeguard against excessive reduction of butter consumption.

**Spanish Pickle**

- 3 dozen green tomatoes
- 2 medium sized heads cabbage
- 2 dozen small sweet cucumber pickles
- 8 small green peppers
- 1 teaspoonful tumeric powder
- 1 teaspoonful cinnamon
- 1 teaspoonful white mustard
- 1 teaspoonful celery seed
- 3 1/2 pints vinegar
- 4 pounds brown sugar

Run cabbage, tomatoes, and peppers, through food grinder, sprinkle each with salt separately, and let stand over night. Scald in weak vinegar. The cabbage should be scalded separately, as it requires more scalding than the other vegetables. Do not allow vegetables to boil. Drain off liquid. Cut pickles in half-inch pieces, mix tomatoes, peppers, cabbage, and pickles. Add spices to good vinegar, boil, and pour over mixed vegetables. This will keep for some time without sealing.

**Grape Juice**

The ordinary way of crushing and

stewing grapes in order to obtain their juice yields a product that does not do full justice to the grape. A better method is to crush the grapes, add a quart of water for each sixteen quarts of grapes, and place the kettle containing them over a second kettle containing hot water, thus steaming instead of stewing the grapes until tender. Their juice is extracted in the usual way, by pouring the cooked fruit into a jelly bag and allowing it to drip over night. Holding the strained juice over night in this way permits it to settle so that the clear top can be poured from the sediment.

The following day the juice is strained into bottles or glass fruit jars, covers and rubbers are adjusted, and the bottles or the jars are set on a rack in a covered boiler or kettle or on the shelf of a steam cooker. If a boiler or kettle is used, warm water is added until it comes up to within about an inch of the tops of the bottles. The water is then brought gradually to the boiling point and should boil for from twenty to sixty minutes, according to the size of bottles or jars used. The tops of the bottles are then dipped in wax or paraffin or the

**FASHION DEPARTMENT—ALL PATTERNS TEN CENTS**

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 Dress-maker," 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.

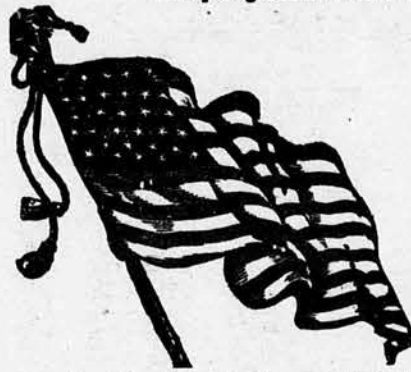


No. 7819—Ladies' Shirtwaist: Cut in sizes 36 to 44 inches bust measure. Comfort every minute and daintiness all the time are expressed in this waist with a shoulder yoke to which the fronts are gathered. The open neck is becoming and the front closing is convenient. The collar and cuffs are in light tone. No. 8184—Girls' Dress: Cut in sizes 8, 10, 12 and 14 years. Such a winning little frock as the one shown here must surely prove a great favorite with the school girl. The dress is cut low in front to show the inset vest of the same material as the collar and cuffs. A choice of materials for this dress is found in gingham, chambray, linen or percale. No. 7802—Ladies' Shirtwaist: Cut in sizes 36 to 44 inches bust measure. A very pretty style for plain and figured material. The large cape collar, in contrasting note and finished with edging, extends almost to the waistline in back—in square outline—and has all the honor that the tie does not claim for giving unusual style to this blouse. No. 8137—Misses' Dress: Cut in sizes 14, 16, 18 and 20 years. Recent developments in the fashion world are well expressed in this model, which has a plain waist and a three-gore skirt. The collar is bound to be the leading style feature—the sleeve cuffs agreeing with it. However, the season is partial to belts of self or separate material that are doubled in covering a waist and skirt joining. No. 8210—Ladies' Skirt: Cut in sizes 24 to 32 inches waist measure. That most desirable quality known as style is perfectly expressed in this four-gored skirt. It combines the fashionable fullness with the slender effect around the waist and hips. The distinctive feature is the yoke with its tiny belt ends, having a slightly raised waistline. The sides of the skirt are plaited into the yoke. No. 8193—Ladies' Dress: Cut in sizes 36 to 44 inches bust measure. For the woman who desires a very simple model that may be quickly and easily made, nothing could be more practical than this dress, which is equally suitable for a working dress or for a street dress. The addition of white collar, cuffs and belt makes this dress quite wearable.

**"Your Flag and My Flag"**

*"Fling out, fling out, with cheer and shout,  
To all the winds, Our Country's Banner;  
Be every bar and every star  
Displayed in full and glorious manner."*

—Cole.



*"Long may it wave  
O'er the land of the free  
and the home of the  
brave"*

The big demand, the scarcity of good dyes and the high price of cotton have made it hard to secure flags. We have been fortunate enough to secure a few high-grade printed flags 3 feet by 5 feet with canvas heading and brass grommets, colors fast.

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jars are sealed, and the juice is ready for storing.

Grape juice will keep satisfactorily without sugar. If sugar is desired, however, add it to the juice before pouring it into the container, using one-eighth to one-fourth cupful to each quart of juice.

A second-grade grape juice may be made by returning to the preserving kettle the pulp left after the juice has dripped from it, covering it with water, heating it gradually, and allowing it to simmer slowly for from twenty to thirty minutes. It is then treated by the method already described. This is strong enough to make excellent jelly. The pulp may be extracted for juice a third and a fourth time. The yield of each successive extraction is smaller and more dilute than the preceding. If the second, third, and fourth extracts are mixed, a very pleasing juice results.

The juices of all fruits may be extracted and canned as directed for grape juice, the main differences in the process used with various fruits being the amount of water and the length of time needed to extract the juice. Dry fruits of course require more water and a longer time of cooking than do juicy fruits.

Fruit juices may be canned during summer and made into jelly during winter. The juice made by extracting the pulp of fruits used in jelly-making may be bottled and used later as a basis for fruit punches and other beverages. In case of sickness, fruit juices combined with water make a cooling drink for a feverish patient. Rhubarb juice is particularly valuable for fruit beverages and for combining with other fruit juices to give tartness to jellies. Rhubarb juice may be prepared from the stalks that have become too tough to cook in other ways.

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OTTAWA Business College OTTAWA, KANS. CATALOG FREE

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Fly a flag on the farm and teach the children what it stands for.





# HOG SALE

## TENTH SEMI-ANNUAL SALE

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CHOLERA  
IMMUNE



CHOLERA  
IMMUNE

**WEDNESDAY, OCT. 24, 1917**  
50 HEAD — POLANDS AND DUROCS — 50 HEAD  
Send for illustrated catalog.

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200 — RAMS — 200  
REGISTERED SHROPSHIRE  
Our flock was awarded 20  
prizes at 1917 Iowa State Fair.  
Weight and wool always win.  
Rams and ewes for sale. C. W.  
& Frank Chandler, Kellerton, Ia.

#### HAMPSHIRE HOGS

HALOYON HERD HAMPSHIRE HOGS  
Best breeding, best type. Stock for sale.  
GEO. W. ELA, Valley Falls, Kansas

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DISPERSION SALE of all my double-  
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for date.  
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DORSET HORN SHEEP  
H. C. LaTourette, Route 2, Oberlin, Kan.

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### WESTERN HERD CHESTER WHITE HOGS

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FOR SALE  
Spring Pigs in Pairs and Trios  
Not related, from my unde-  
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A few good cows and helpers for sale, also  
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At head of herd, Kansas Archer 440809 by  
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young bulls from spring calves to yearlings.  
Come and see our herd.  
F. H. HULL & SONS - EUREKA, KANSAS

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A few Scotch bulls for sale of breeding  
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see my herd.  
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Bulls twelve to fifteen months old, sired  
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DOYLE SPRING STOCK FARM  
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Prince Valentine 4th and Clipper Brawith  
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Can ship on Rock Island, Union Pacific or  
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SIXTY yearling and two-year-old bulls,  
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heifers.  
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#### GUERNSEY BULLS.

Buy a grandson of Imp. May Royal, whose  
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winter will find it to their advantage to  
write KANSAS FARMER for information  
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card or a two-cent stamp to find out  
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King Joe  
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One of the best offerings to be held in Kansas this fall.  
Breeding and individuality of the best. A variety of breeding  
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#### JERSEY CATTLE.

#### JERSEY CATTLE.

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