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TRACTOR AND FOOD PROBLEM

Power Outfits Should do Double Duty in Early Preparation of Wheat Land

By RAYMOND OLNEY, in Power Farming

WHETHER or not the so-called food shortage in this country, which is demanding so much attention at present, is more apparent than real, and whether or not the extremely high prices are largely the result of speculation, monopoly, poor distribution, or what not, the fact remains that the world needs more food. There is no question but that this country would have no difficulty in feeding itself, but on account of the demoralization of European agriculture, the American farmer is called upon the feed many millions more than ordinarily. This condition of affairs will, in all probability, continue for some time to come, even though the war were to end soon.

In the meantime, what are we going to do about it? This nation and its allies have put it up to the farmers of this country. There are no doubts, however, as to their ability and willingness to make good.

But the same old problem of getting labor is confronting the farmer in all its seriousness; in fact, that seems to be the most discouraging thing with which he has to contend. For the men who own tractors, or who are fortunate enough to be able to get them, the labor question is, to a large extent, solved. The farmers of this country have, by no means, been slow to appreciate the labor-saving and profit-making possibilities of farming with mechanical power, and in spite of the obstacles at present in the path to increased production, the man on the farm is proving himself master of the situation by hitching the tractor to his production problems.

KANSAS MOBILIZES TRACTORS

The manufacturing situation, however, is unfortunate—for both farmer and builder. The farmer needs tractors this year worse than ever before, while at the same time the manufacturer is being held up because of the shortage of materials and skilled labor to build machines. In all probability government action will be taken soon to relieve this condition, making it possible for tractor and other farm operating equipment manufacturers to secure materials in sufficient quantities.

In the meantime, the tractors already in use should be made to do double duty. Down in Kansas the State Agricultural College some time ago started a movement among tractor owners urging them to operate their machines day and night in order to put in the largest possible acreage of crops. In the province of Ontario, Canada, the government proposes to buy a tractor for each county to help the farmers with their work. On every hand, not only are farmers being encouraged to buy and use tractors, but they are being urged to get a maximum of work out of them. This means that tractor owners should keep their machines busy night and day, and when they have finished work on their own farm, to help out their neighbors who may not be fortunate enough to own tractors.

Just recently Carl Vrooman, Assistant Secretary of Agriculture, issued a special appeal to tractor owners, in which he said, "Every farmer who owns a tractor owes it to his country this year to do all the custom or exchange work he can do without neglecting his own work. Every hour that his tractor would otherwise be idle, it ought to be at work helping a neighbor who is behindhand with his plowing or harrowing. Make your outfit work from dawn to dark; make it work all night if you have enough operators to fill the shifts. The acreage to be harvested this fall hangs on the plow. Don't let an acre that might otherwise be planted go untilled because your tractor is in the shed. Help your neighbors, and thus do your part in strengthening the allied lines on the battle fronts of Europe."

This is not a time for the every-man-for-himself policy. The greatest patriotic duty a farmer can perform is to raise the greatest possible volume of produce. If he owns a tractor, in most cases there are days when he can use it to help out a neighbor, without seriously interfering with his own work. This he should do wherever possible, as it is his patriotic duty.

Aside from plowing and fitting the seed bed, unquestionably the most important use for the tractor is harvesting grain. This is an operation that requires rapid work to get the grain cut at just the right stage of maturity. By means of a suitable binder hitch—a hitch for each binder—one tractor will handle conveniently as many binders as it has power capacity to haul. A tractor in the neighborhood offers a solution to the grain harvesting problem, since several neighbors can hitch their binders behind one tractor and make quick work of the cutting and binding operations.

A few years ago I was employed as tractor operator one season on a tractor experimental farm, where we harvested between 200 and 300 acres of grain. For hauling binders we found the tractor far superior to horse power, since the only stops necessary were for oiling, making minor adjustments, etc. The tractor traveled at a speed of two and one-half miles per hour, so that when hauling several binders, a very large acreage could be cut and bound in a day.

OPERATE NIGHT SHIFTS

It was necessary to rush this work as much as possible. Accordingly the crew and outfit were in the field each morning as soon as the dew was off. The only stops, provided nothing went wrong with the equipment, were for oiling and filling twine boxes occasionally, and for dinner. Late in the afternoon the fuel and water tanks were replenished, lubricators and grease cups filled, and the entire outfit inspected for necessary minor repairs and adjustments. Then another crew took the outfit and worked until the dew made further operation impossible. Some nights it was possible to work as late as eleven o'clock.

This method of harvesting offers a partial solution, at least, of the labor problem in the harvest field. The cutting and binding can be done in a comparatively short time; then all hands can turn to and help with the shocking. Where several farmers co-operate in this way, extra labor will seldom be needed, except possibly in the grain-growing sections where the acreages are unusually large.

After harvesting, this same tractor, if not needed for driving a company-owned separator, can be used to haul a train of neighbors' wagons loaded with grain to the elevator. A tractor with a road speed of three to four miles an hour will transport a large amount of grain in a short time and require much less labor than if teams were used.

It is not very many weeks before plowing for winter wheat will begin, or should begin, in earnest. (And here it should be said that where winter wheat can be grown, a large acreage should be put in this fall.) The earlier it is possible to start fall plowing for wheat, the better. The ground should be well prepared early, and all of the available moisture conserved.

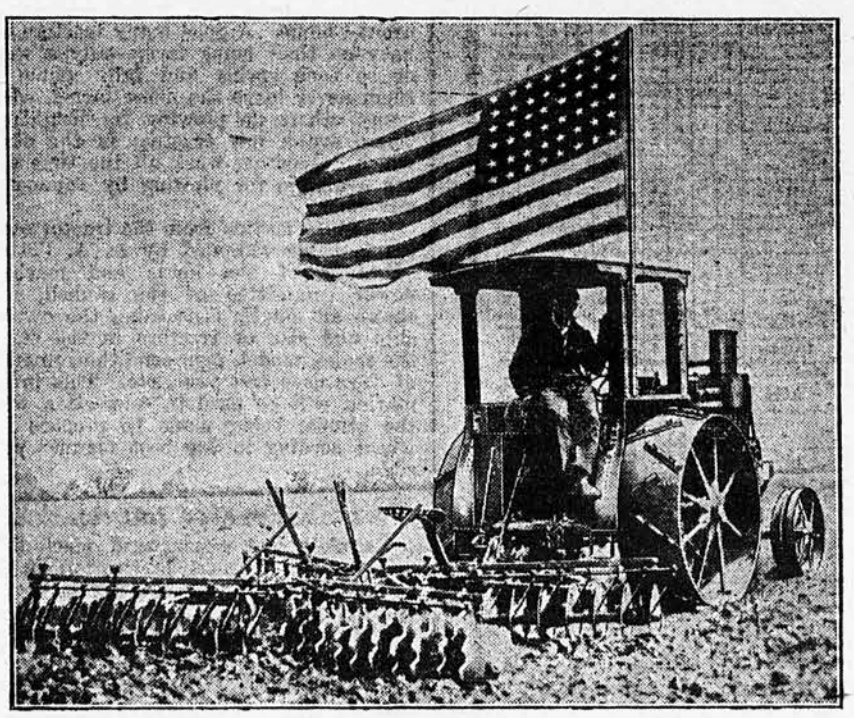
It goes without saying that midsummer is the worst time of the year for horses to plow. The heat, flies, and hard dry ground, as it often is then, are horse killers. The tractor, however, minds none of these things. So it is the duty of every power farmer to get his plowing and fitting done early, so that he can help his neighbors, or perhaps better still, rent more land to put in a larger acreage for himself.

There is no question whatever but that it is entirely possible by the more extensive and efficient use of tractors to produce any amount of grain required for the world food supply. The land is available in almost unlimited quantities, and to operate the tractor efficiently the owner should give a good deal of attention to familiarizing himself with his machine. The tens of thousands of tractors that are already in use are not operated at maximum capacity. There is already a movement being started to furnish owners of tractors with experienced operators or to assist the owners themselves in getting the necessary knowledge to operate his machine to its highest efficiency and capacity. This, no doubt, will come through the Government in co-operation with state agricultural colleges and commercial schools and the tractor manufacturers.

At this time it is the duty of every tractor owner to put forth his very best efforts to keep his tractor and the equipment which he uses with it in the very best working order at all times; he should exercise the most extreme care to see that each day, before it goes to the field, it is given a thorough inspection and nothing requiring attention is neglected. He should also, by careful study and planning, keep it busy at some useful and profitable work a maximum number of days throughout the season.

If every farmer will put the resources and equipment at his command to the best possible use and make them available for the good of the cause, there will be no food shortage, the world will have plenty to eat, and democracy, because of the farmer, will win the greatest victory in history.

I doubt if there is a power farmer in America who will not willingly and at any sacrifice put forth his best effort this year to "do his bit" with his tractor.



THIS 12-25 H.P. FARM TRACTOR OWNED BY C. B. ROBINSON & SON, OF ILLINOIS, IS DOING ITS PART IN CARRYING THE FLAG TO VICTORY

FARM POWER

Items of Interest About Automobiles, Engines, Tractors, and Motorcycles

IN 1916 there were 1,067,332 more motor cars registered in the United States than in 1915. This was an increase of 43 per cent. The gross total of registered cars, including commercial cars, was 3,512,996; the number of motorcycles registered was 250,820. The several states collected in registration and license fees, including those of chauffeurs and operators, a total gross revenue of $25,865,369.75. Of this amount 92 per cent, or $23,910,811, was applied directly to construction, improvement, or maintenance of the public roads in forty-three states, according to figures compiled by the Office of Public Roads of the United States Department of Agriculture, in Circular 73, "Automobile Registrations, Licenses and Revenues in the United States, 1916."

The figures for 1916 correspond very closely with the annual percentage of motor car registration of the last three years. This yearly increase has averaged 40 per cent in the number of cars and 50 per cent in revenues.

When viewed over a period of years, the increase in motor car registration and gross revenue has been remarkable. In 1906 the total state registrations were approximately 48,000 cars, on account of which the several states collected in fees and licenses a total gross revenue of about $190,000. Only a small part of this was applied to road work. In 1916 the $25,865,369.75 collected formed nearly 9 per cent of the total rural road and bridge revenues of the states.

Recent years have shown an increasing tendency to put the spending of the motor car revenues directly in the hands of the state highway departments. Of the total amount applied to road work in 1916, 70 per cent, or $16,411,520, was expended more or less directly under the control or supervision of state highway departments. Only thirteen states did not exercise any direct control over the expending of net automobile revenues.

Kansas Mobilizes Tractors

A campaign is on to produce two hundred million bushels of wheat next year in Kansas. The time to prepare the ground is as soon after the harvest season as possible. In Central Kansas where there will be little harvest, the rush work of the corn harvest will be over by the middle of July.

The Kansas Council of Defense is working on plans to mobilize the tractors of the state so as to use them to the limit in the preparation for wheat seeding. J. C. Mohler, secretary of the council, has sent to more than 2,000 tractor owners in the state a set of blanks asking all about the machines they own.

The council wants to know how many tractors there are in the state, the exact location, the capacity of each and the amount of work each machine has to do around home. A good many tractors are busy on their home farms only a week or so each spring and fall. Some of them never leave the home farms, while many others do plowing for neighbors. There are a few tractors in the state which do custom work all the time and are available for plowing by anyone at any time.

The information from the tractor owners is being compiled by A. A. Potter, secretary of the horse and machine power committee of the council, and shows all details concerning the ownership and size of tractors in the state, the make, model, age, condition, number of days used last year, etc. This information will be used in connection with the efforts being made to prepare for wheat seeding in the best manner possible.

Watch Tractor Lubrication

Practical and experienced machinists point out that proper lubrication of the farm tractor will save many a costly and annoying repair bill—to say nothing of the delay. Here are just a few timely notes on tractor lubrication that will be helpful to those who are new to the job of handling such machinery:

Make a thorough study of the lubrication system used on your tractor. If possible, remove the plate or plates accessible to the crank case and trace the flow of oil.

In all tractors where the splash or pump systems are used, either alone or in combination, there is an indicator which should be watched closely. Keep the oil to the proper gauge height.

If possible, operate the pump by hand to make sure the system is working right.

Before starting on a day's run, examine the oil system. See that all grease cups are filled and tightened.

Operate the engine for a few minutes. Then stop and examine all bearings, if possible, to make sure they are being well lubricated.

Change the oil in the crank case as often as recommended by the manufacturer. When burning kerosene as fuel, the lubricating oil will thin out, and in time lose its value. If a heavy grade of gas engine oil is advocated, use no other.

Too much attention cannot be given to tractor lubrication. Spend a little time each day in this work and the life of the machine will be very materially increased.

Many Entries for Tractor Meet

The management of the National Tractor Farming Demonstration to be held at Fremont, Nebraska, August 6 to 10, reports that this year's meet promises to be the biggest working display of power farming machinery ever seen. Already eighty-six manufacturers have entered, and many more have signified their hope to be present, if conditions permit.

A. F. Hildebrand, the manager, is looking forward to an attendance of 350,000, and states that if the weather conditions should be exceptionally favorable he would not be surprised if the number exceeded half a million.

Following is a list of the exhibitors who have entered up to this time:

TRACTORS AND TRACTOR PLOWS

Allis Chalmers Co., Milwaukee, Wis.
Advance Rumley Co., LaPorte, Ind.
Albaugh Dover Mfg. Co., Chicago.
Albert Lee Tractor Co., Albert Lee, Minn.
Aultman-Taylor Co., Mansfield, Ohio.
Avery Co., Peoria, Ill.
Avery & Sons, B. F., Louisville, Ky.
Big Four Drive Co., Big Rapids, Mich.
C. L. Best Co., San Leanardo, Cal.
Bull Tractor Co., Minneapolis, Minn.
Bullock Tractor Co., Chicago, Ill.
Case Plow Works, J. I., Racine, Wis.
Case T. M. Works, J. I., Racine, Wis.
Cleveland Motor Plow Co., Cleveland, O.
C. O. D. Tractor Co., Minneapolis, Minn.
Collins Plow Co., Quincy, Ill.
Dunham Co., Berea, Ohio.
Dauch Mfg. Co., Sandusky, Ohio.
Deere & Co., Meline, Ill.
Electric Wheel Co., Quincy, Ill.
Emerson-Brantingham Co., Rockford, Ill.
Gile Tractor & Engine Co., Ludington, Mich.
Grand DeTour Plow Co., Dixon, Ill.
Gray Tractor Co., Minneapolis, Minn.
Happy Farmer Co., LaCrosse, Wis.
Hart-Parr Co., Charles City, Iowa.
Hoke Tractor Co., South Bend, Ind.
Holt Mfg. Co., Peoria, Ill.
Huber Mfg. Co., Marion, Ohio.
Interstate Tractor Co., Waterloo, Iowa.
International Harvester Co., Chicago, Ill.
Janesville Machine Co., Janesville, Wis.
Joliet Oil Tractor Co., Joliet, Ill.
Kinnard Haines Co., Minneapolis, Minn.
Kardell Tractor Co., St. Louis, Mo.
Lauson Tractor Co., New Holstein, Wis.
Lyons Atlas Co., Indianapolis, Ind.
LaCrosse Plow Co., LaCrosse, Wis.
Minneapolis Steel & Machinery Co., Minneapolis, Minn.
Moline Plow Co., Moline, Ill.
Nilson Farm Tractor Co., Minneapolis, Minn.
Oliver Chilled Plow Co., South Bend, Ind.
Parlin & Orendorff Co., Canton, Ill.
Parrett Tractor Co., Chicago, Ill.
Peoria Tractor Co., Chicago, Ill.
Pioneer Tractor Co., Winona, Minn.
Rock Island Plow Co., Rock Island, Ill.
Roderick-Lean Mfg. Co., Mansfield, Ohio.
Russell & Co., Masillon, Ohio.
Sanders Co., Newell, Chattanooga, Tenn.
Simplex Tractor Co., Minneapolis, Minn.
Vulcan Plow Co., Evansville, Ind.
Velie Motor Plow Co., Moline, Ill.
Waite Tractor Co., Chicago, Ill.
Wallace Tractor Co., Racine, Wis.
Waterloo Gas Engine Co., Waterloo, Iowa.

ACCESSORIES EXHIBITORS

Balso Oil Co., Toleda, Ohio.
Buda Motor Co., Harvey, Ill.
Byrne-Kingston Co., Kokomo, Ind.
Champion Spark Plug Co., Toledo, Ohio.
Climax Engineering Co., Clinton, Iowa.
Doman Motor Co., Oshkosh, Wis.
Diamond Chain Co., Indianapolis, Ind.
Eiseman Magneto Co., New York.
Erd Motor Co., Saginaw, Mich.
Holly Bros. Co., Detroit, Mich.
Hyatt Roller Bearing Co., Chicago, Ill.
K. W. Ignition Co., Cleveland, Ohio.
Keystone Lubricating Co., Philadelphia.
Malty Auto Specialty Co., Detroit, Mich.
Pierce Governor Co., Anderson, Ind.
Standard Oil Co., Omaha, Neb.
Sumter Electric Co., Chicago, Ill.
Timken Roller Bearing Co., Canton, Ohio.
Vacuum Oil Co., Clinton, Iowa.
Waukesha Motor Co., Waukesha, Wis.

Spark Control

When on a hard pull and the motor starts emitting black smoke from the exhaust, the spark should be retarded until this is cleared up. When you get through the hard spot, advance the spark.

Carry the spark as far advanced as possible all the time, to get the best power, but it must be advanced and retarded in accordance with the load.

If you will take the time to care for your tractor that you would have to take in caring for one team of horses, you will get results.

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EVERY FARM A FACTORY

In studying the economics of farming, the question of why the farmer should ship his products to market in the form of hay and grain is sure to come up. There is but one correct answer to this question. He should not do it if it is possible to market the crops in a more condensed form. Yet the average western farmer does not begin to market as much as is possible of what he produces in a finished form. The practice of selling corn, wheat, hay, and other farm crops from the land year after year is sure to result in a gradual but constant loss of soil fertility. It costs no more to till soil capable of producing forty bushels of wheat to the acre than to till soil which is so worn that it will produce but twenty. This is a fundamental principle of farming and one of the strongest arguments in favor of a well worked out system of live stock farming. The feeding of farm animals means that from eighty-five to ninety per cent of the fertilizing value of the crops fed can be returned to the land. It also makes it possible and desirable to grow such forage crops as alfalfa, clover, or cowpeas along with kafir, milo, and corn. These leguminous crops add more nitrogen to the soil than is sold from the land in the shape of meat or milk products, and the result is to build up the soil instead of to tear it down.

Every farm should be a factory. The dividends will depend largely upon the cost of marketing. Live stock furnishes a home market for the crops grown. Feeding live stock is a means of condensing a product to about one-eighth of its original weight. Seven pounds out of every eight are thus marketed on the farm, reducing the freight charges for transporting grain by 87½ per cent and likewise doing away with the usual haul to the local market or elevator. The keeping of live stock also makes possible the utilization of waste roughage, material that otherwise would have no market whatever. In a system of live stock farming it is also possible to have a more seasonable distribution of labor, and there are many other points in favor of this type of farming for the dry-land sections of our state.

CHILDREN AS PARTNERS

In talking over farm affairs in the presence of the children, it would be far better if the parents spoke of what WE ought to do or are doing instead of constantly using the pronoun I. Where this is the practice the children cannot help acquiring the feeling in the course of time that they have little part in carrying on the work of the farm outside of the labor they perform. Consulting with them regarding the various farm operations will arouse their interest. Their advice may not be worth very much at first, but it will encourage thinking and suggest the idea that all members of the family are interested in the methods of conducting the farm business.

Parents on the farm are continually racking their brains to find means of arousing the interest of their children in the various activities of farm life. There is probably no one thing so likely to bring about this result as taking them into a limited partnership in some feature of the farm activities. The boy may be given a special piece of ground to cultivate for himself or be intrusted with the ownership and care of some of the farm animals. The girl in like manner may be given a part in carrying on some of the things related to the work of the home or the farm.

It has been our observation that the parent who simply orders a child to do certain things without ever offering a suggestion of the whys and wherefores of the work, is doing little to arouse interest in the task. Boys and girls oftentimes have visionary ideas about things with which they would like to experiment in connection with farm life. Too often we are inclined to throw cold water on their little schemes. Better encourage them, even though you know their little experiments will not work. Even though it may cost something, the small loss will be well repaid by the education and training which it gives to the boy or girl.

CORN GROUND FOR WHEAT

An unusually large acreage of corn is planted throughout Central and Western Kansas. Much of this was listed into land where wheat had winterkilled. While corn is a somewhat uncertain crop through some of this territory, it was recognized by those planting it that the tending of corn was ideal preparation for a fall seed bed for wheat. This corn land will furnish the best possible place to seed wheat this fall. The preparation of the ground for corn and the cultivation given are releasing plant food much of which will not be used by the corn plant. This is sure to follow in case the rainfall is short. This accumulated store of plant food will be ready for the wheat crop.

Those who are now tending corn should keep in mind the fact that the cultivation given will not be lost even though the corn crop should be very poor. This ground will need very little additional preparation to make it ready for wheat. In the fall a good disking after the first good rain and such additional work as is needed to keep down the weeds until seeding time will be all that is necessary to prepare an ideal seed bed for wheat. A seed bed prepared in this way is very often better than one prepared by plowing early in the season. The subsoil does not contain any reserve of soil moisture, and for that reason it is important to continue the cultivation of the crop. This not only helps to hold moisture, but keeps the soil in better condition to take in moisture when rain comes.

Ten Million Acres to Wheat

"TEN million acres, two hundred million bushels, and two dollars a bushel," is the slogan of the Kansas Council of Defense. To make this slogan a reality is a tremendous task, but we are being asked these days to do extraordinary things. We are now at war with the greatest military power the world has ever known, and an abundant wheat supply is a vital need both of our nation and of our allies. We are not asked to do the impossible in the matter of wheat production. A big wheat year has almost invariably followed a poor wheat year. Only once in twenty years have we had two poor wheat years in succession.

Normally we would not consider planting such an acreage of wheat, but this year as an act of patriotism we are asked to go the limit and increase our acreage to ten million acres and to spare no effort in giving the ground early and careful preparation. We are abundantly able and willing to sow a normal acreage of wheat this year. It will require no special effort to do this, but the demand for increased acreage will fall heavily on the farmers of a few of our great wheat producing counties. Unaided they should not be expected to assume the added risk. To lighten this burden and distribute the risk it is important that the whole state share in this undertaking of increasing the wheat acreage so as to make possible the two hundred million bushel production which has been set as a mark by the Council of Defense.

In the furtherance of this distribution of the added risk, the Council of Defense is working out a plan whereby a two million dollar loan fund will be available to provide seed for the extra acreage over and above what would normally be planted. The needs of those who respond to this patriotic appeal will be met either by direct loans at the going rate of interest secured only by the crop, or seed will be purchased and furnished under a contract to return one-fifth of the crop to the Council committee handling the loan fund.

The handling of the loan fund will be placed on a strict business basis and there will be a minimum of overhead expense. The State Bank Commissioner will collect the money and turn it over to the State Treasurer as custodian. The State Auditor will audit all accounts. Local committees will supervise the handling of the money and seed wheat in the counties where increased areas will be sown as a result of putting this plan of sharing the risks into operation.

P. W. Goebel, president of the American Bankers' Association, heads the committee of the Council that will work out the details of the seed wheat campaign and put it into operation. L. H. Wulfekuhler, of Leavenworth, is vice-chairman. Other members of the committee are: Governor Capper; Walter Wilson, bank commissioner; Thomas B. Kennedy, president Kansas Bankers' Association; Thomas J. Sweeney, president Kansas State Bankers' Association; Henry Lassen, of Wichita, and H. J. Waters, president of the Council.

The Council knows exactly where the good wheat is located. A list has been prepared giving the name of every man whose wheat has been inspected, the estimated yield, and its condition as to purity and freedom from smut or rye. The results of this investigation of the Council are given on page five of this issue.

It is of the greatest importance that this good seed wheat be prevented from getting into the regular channels of trade until the demands for seed have been met. Local committees in counties needing seed should at once canvass the situation in detail. T. W. Topping, secretary of the Kansas Millers' Association, will establish headquarters in the State House in Topeka and act as a clearing house between the localities having good seed and those in need of good seed to meet the demand for increased acreage.

The Kansas Council of Defense is unanimously in favor of having the Government guarantee a minimum price of $2.25 a bushel based on Chicago. This would mean two dollars a bushel to the Kansas farmer. Owing to the increased cost of farm machinery and labor and increases in almost everything the farmer must buy, he cannot feel safe in going the limit in wheat production without this guarantee. Two dollars a bushel now does not mean as much as $1.50 a bushel a year ago. Urgent telegrams went to members of Congress, setting forth the need of Government guarantee of this minimum price of two dollars a bushel to the farmer.

We feel sure Kansas will rise to the emergency and as an act of patriotism put out the ten million acres of wheat this fall. It would be a simple matter, however, to increase the acreage if we could be assured of a price of not less than two dollars a bushel.

PURE WATER FOR HOGS

There is nothing more important in handling hogs than an abundant supply of pure water. A pig cannot make its best growth unless it has free access to pure water at all times. The greater portion of every animal's body consists of water, and this is the cheapest material that goes into the makeup of the animal. It would be poor economy to deprive hogs or any other live stock of pure water when this is so essential to their proper growth and development.

Many hog breeders use automatic hog waterers of various kinds. These are so made as to keep water before the animals at all times providing the source of supply is kept up. In the long run the most economical means of distributing water is to have a system of piping connected with a central reservoir. On a farm so equipped the water is at hand by the mere turn of a valve in any lot where it is needed. There is no chore more tedious in hot weather than having to carry water to hogs or other animals. When the rush of farm work is on, the tendency will always be to give the animals less than they really need. Where it is necessary to carry water to hogs they will usually get into the trough during hot weather and later when they need water to drink there is none there.

An abundant supply of fresh water should be made one of the first considerations in preparing to handle hogs successfully.

FURNISH PEDIGREES PROMPTLY

The breeder of pure-bred animals should never fail to deliver the pedigree of the animals sold the day the sale is made, if possible. In selling hogs or other animals by mail the records should be in such shape that the pedigree properly signed can be filled out in a few moments and mailed to the man buying the animal the same day it is shipped. Those buying pure-bred animals have a right to know at once exactly what they are getting.

Being prompt in this matter of delivering pedigrees is a big asset to a breeder's reputation. Failure to receive the pedigree promptly is sure to arouse suspicions. We have known personally of many instances where a long, tedious correspondence was necessary before the buyer received the pedigree he should have had in hand when the animal was delivered. The breeder who permits such a thing to occur can count on losing any future custom from buyers who have had this experience. If you expect to make a success in breeding pure-bred animals, make this matter of keeping your records up to date and supplying pedigrees promptly one of the cardinal rules of your business.

In order to insure your communications receiving prompt attention, they should always be addressed to Kansas Farmer Company, and not to individuals. Business letters sent to individuals may have to be held for several days because the person to whom they are addressed is away from the office. Address business letters to Kansas Farmer Company.

HOOVER MEETS DAIRYMEN

Importance of Dairy Cow as Conservation Agent Recognized in National Meeting

THE dairy interests of the country recently had a meeting with Herbert Hoover and secured his recognition of the importance of the dairy business. The National Dairy Council took the initiative in bringing this meeting about. Numerous reports were abroad indicating that because of high feed prices many were dropping out of the business of milking cows.

The Council called upon every quick available avenue of information to run the rumor down, to be able to confirm or refute it, as the case might be, and in order to have the whole matter threshed out at one and the same time, with other problems of interest, those asked to gather the available data on dairy disaffection and cow slaughter, and the causes therefor, were called to a meeting together with others of the industry, in Washington, on Monday, June 25, for the purpose of reaching practical conclusions on present dairy conditions, that Mr. Hoover might be informed upon the subject, and that the industry might know, from him, what he would have it do to help him in his great patriotic work for food conservation and distribution.

The results of this meeting were summed up in a document that was presented to Mr. Hoover on June 26, and is given below:

"We wish to assure you at the outset that we have come before you prompted solely by a spirit of patriotism and an earnest desire to help you in every way possible to successfully carry on the great undertaking of conserving and distributing human food. We are most desirous of showing that we are worthy of the splendid heritage of human liberty and human rights left to us through the glorious sacrifice of our forefathers.

"A meeting was called by the National Dairy Council yesterday in this city, composed of representatives from the dairy and its allied industries. In this meeting were men who are leaders in the production, manufacture and distribution of all the products of this great industry. They delegated to the committee now before you the duty of offering this service and the presentation in a brief way of what this industry means to the life and energy of the people of this country and those with whom we are allied in this great crisis.

"The dairy industry today produces 18 per cent of all the human food consumed in this country. In addition to this, there is dependent upon it and produced by the farmers owning the cows a very large additional percentage of human food, namely: Poultry, eggs and pigs, the development and production of which is directly dependent on and connected with the production, distribution and consumption of dairy products and the by-products derived therefrom.

"All of the interests involved in the production, manufacture and distribution of dairy products are organized through the National Dairy Council, the influence and use of which organization we tender to you at this time. Through this organization we have been conducting some investigations that disclose conditions which vitally affect not only the conservation, but future production of this great industry. We have found, through this investigation, that during the past twelve months the dairy cows in this country have been slaughtered to an alarming extent. A careful survey made under the direction of Professor Erf, the head and chief of the dairy husbandry of the State of Ohio in its University, shows that the dairy cows have been decreased more than 19 per cent. A survey made in the State of Minnesota, which we believe to be absolutely reliable, shows the decrease in that state to be more than 20 per cent during the same period of time. A similar survey of Delaware, Montgomery, Chester, Bucks County, and counties of New Jersey south of Trenton in the area supplying milk to the city of Philadelphia, shows a decrease of 25 per cent. A like survey in the State of New York, for the area supplying milk to New York City and other large cities in the state, shows a decrease of 24 per cent. Surveys in other localities of the country show a similar decrease with these sections.

"With such a condition confronting the industry, we feel that you can render one of your greatest services by giving your earnest attention to an effort to conserve this most vital food producing machine, namely, the dairy cow.

"The vital importance, as well as the indispensability of the product of the dairy cow, is disclosed in many ways. The terrific infant mortality in all European countries now at war, excepting England, is most startling. Reports received from the Red Cross Society, the reliability of which has been unquestioned, shows that the death rate of children under two years of age in these countries ranges from 58 to 98 per cent. England has escaped this terrific misfortune largely because of the supply of milk through cow conservation assisted by condensed and milk powders which she has received from this country. It is an accepted fact that there is no substitute for butter fat contained in milk as a human food. This product of butter fat is so absolutely essential to the maintenance of the human race that no governmental or individual effort should be spared in maintaining it. In addition to the butter fat and the products manufactured therefrom, milk contains food nutrients of inestimable value, grouped under the general head of solids not fat.

"The economic value of milk and dairy products as human food compared to other important human foods, is too well known to require repetition. It must therefore be apparent that the question of conservation and distribution of dairy products for human food is seriously menaced and directly involved by this destruction of the dairy cow which is undermining the entire industry.

"We believe that this great industry which supplies the greatest single human food, justifies you in placing under your command a representative to furnish you with all available information and assist you in conserving the dairy cow and her products and economically distributing same, and we herewith tender you the service of such a man, to be named by you, whose services will be given without charge. Such a person should be one not only identified with, but thoroughly informed as to production, manufacture and distribution of dairy products and allied products heretofore mentioned and not identified with any other industry.

"We are urged to make this request for the reason that there are too many points of conflict between the meat animal industry and the dairy industry. We have men with us today competent to give counsel on the dairy cattle industry; the cost of production and distribution of milk; the cost of feed; we have the maker of butter; and the distributor of butter and the storer of same; the ice cream manufacturer, and the man who can give data on the price of milk sold for all purposes. We have brought some figures with us on disposal of dairy cattle by slaughter in a few states. We have men who can advise on dairy cattle feed conditions as regards the present crop prospects; and we are all enlisted in the common cause of our country, ready to lay aside personal interests and ambitions for the good of the whole cause.

"And in making this offer of service and suggestion, we wish to assure you we are prompted to do so solely from a profound patriotic spirit and an earnest desire to be of assistance to you in conserving and distributing this most vital and necessary human food."

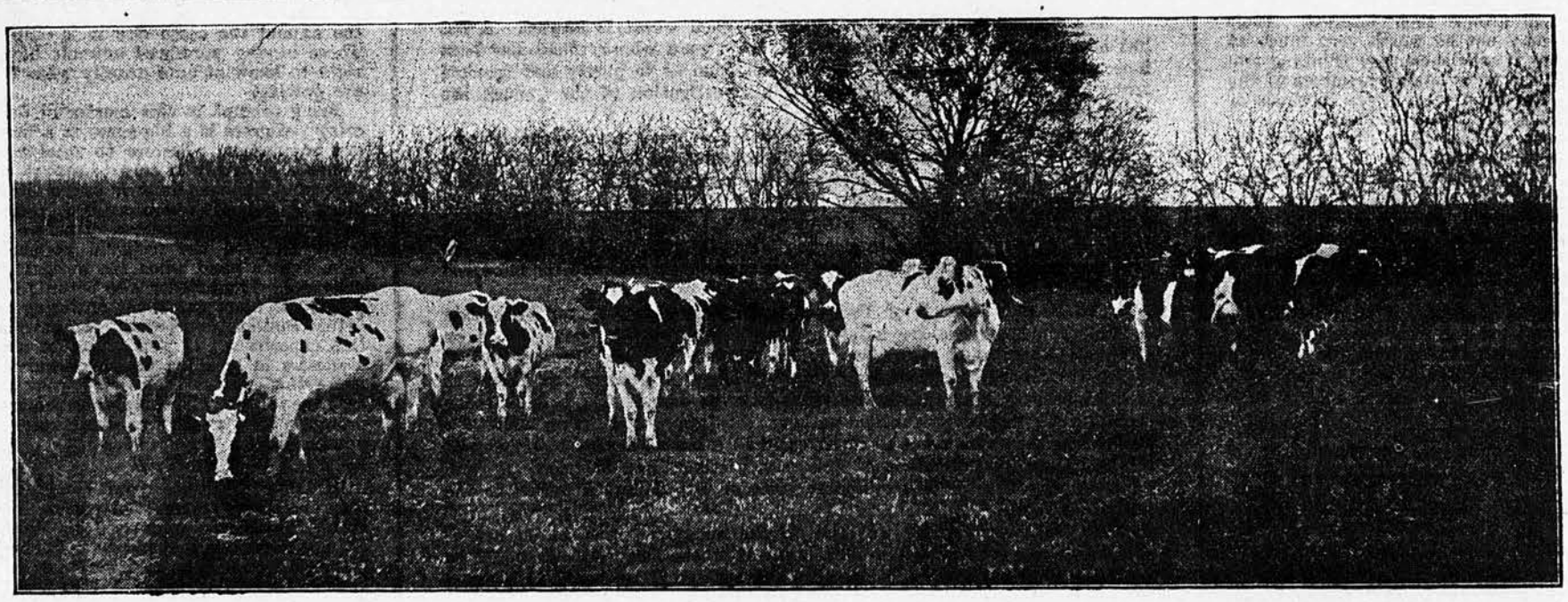
The meeting of the dairymen was presided over by M. D. Munn, president of the National Dairy Council. On a call of those present it was found that the leading dairy cattle clubs were represented by their war emergency committees. The milk producers were represented by delegates from six organizations covering the supply territory of the larger cities of the country. The International Milk Dealers' Association had their executive committee present. The American Association of Creamery Butter Manufacturers, the National Creamery Butter Makers' Association, the National Association of Ice Cream Manufacturers, each had representatives in attendance. The National Dairy Union was represented by the president and secretary of that association. The butter distributors were represented by the Poultry, Butter and Egg Dealers' Association, and many unattached individuals identified with the dairy industry were present, taking an active interest, that they might do their bit, and at the same time give their views on subjects up for discussion.

When the statement was read to Mr. Hoover by Mr. Munn, Mr. Hoover showed that he had a powerful grasp of the whole situation, and that he knew full well the importance and indispensability of dairy products, and told the committee that he had witnessed some of the terrible afflictions that had followed the destruction of fat-bearing animals in the warring countries, and that every energy would be directed to prevent a repetition in this country. He called upon the dairy industry as a whole to analyze every feature affecting the progress of the industry, and to formulate a plan to not only prevent any depreciation in production, but devise means of increasing it, and whatever could be done would be. He asked that a committee of five or seven be immediately formed, from which committee he could select a man to sit on his commission, and through whom he could secure all information concerning production and distribution. Mr. Hoover expressed concern over the conditions in the industry which were leading to an unrest, and said he was anxious that some method of relief be found at once that would insure the dairy farmers profitably continuing in the business, and in the meantime he felt assured that the value of dairy cattle would be so enhanced as to justify the farmers practicing some patriotism at the hour by not permitting the visible supply of cattle to go lower.

Kansas dairymen have not been seriously affected by some of the conditions which have prevailed in other parts of the country. In spite of the high prices of feed, dairy cows have been a profitable means of marketing the farm-grown feeds of this state. It is worth while for the farmers of Kansas who milk cows and sell cream or milk to become familiar with the dairy business from the national angle. A report of what took place at this national meeting gives this nation-wide view of the business. It certainly is no time to retrench in the milking of cows in this state. For the Kansas dairyman it is rather a time to do better and more dairying.

Constructive breeding is often difficult for the small breeder because of the great expense involved. In this respect the breeder of pure-bred live stock suffers most. The bull association offers an excellent opportunity for the skillful mating of superior animals and for intelligent, long-continued line breeding.

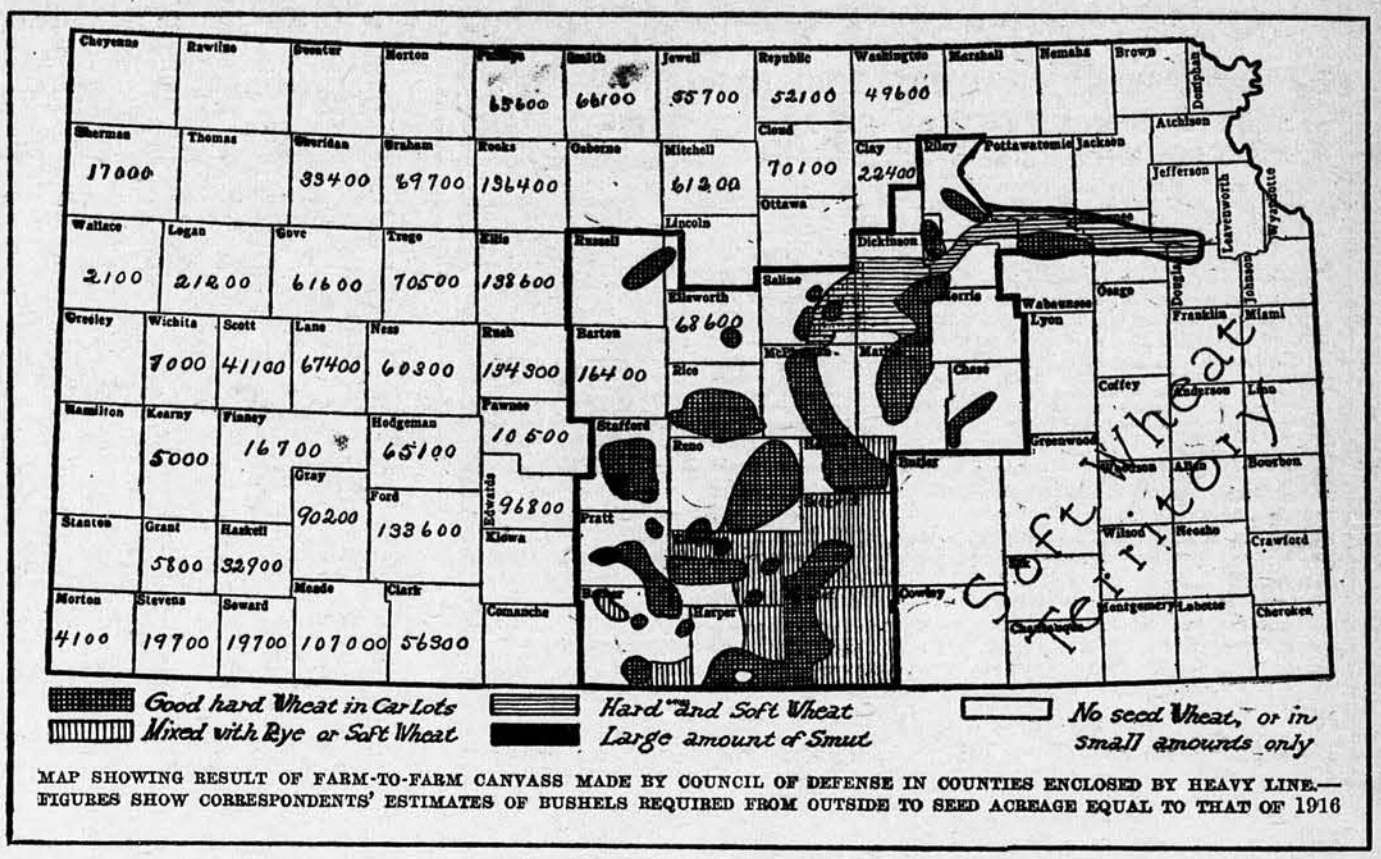
An extension roof on a sixteen-foot silo will increase its capacity eight to ten feet, or fifteen tons. The extension roof costs forty or fifty dollars more than an ordinary roof, which makes the increased capacity cheap compared with the cost of constructing eight to ten feet of silo. An extension roof will help meet the need of more silage capacity.



DOING THEIR "BIT" IN FOOD CONSERVATION. — HERD OF KANSAS DAIRY COWS OWNED BY C. A. BROCK, JEFFERSON COUNTY

PREPARE FOR WHEAT EARLY

To Grow Record Crop, Concentrate on Early Preparation, Good Seed, Large Acreage



MAP SHOWING RESULT OF FARM-TO-FARM CANVASS MADE BY COUNCIL OF DEFENSE IN COUNTIES ENCLOSED BY HEAVY LINE.—FIGURES SHOW CORRESPONDENTS' ESTIMATES OF BUSHELS REQUIRED FROM OUTSIDE TO SEED ACREAGE EQUAL TO THAT OF 1916

PREPARATION for fall wheat seeding is now the paramount task in doing our part in feeding our allies and our own army. In making the report of the committee on agricultural production to the Kansas Council of Defense, W. M. Jardine, its chairman, pointed out that the council's big job now, and possibly the biggest that will confront it, as the committee sees it, is to aid the farmers of the state wherever it can and in every way it can, in the planting of a large acreage of winter wheat this fall. To accomplish this, it is imperative that these three things be concentrated upon: The early and thorough preparation of the seed bed, the securing of an ample supply of good seed, and the encouragement of the planting of a large acreage.

To secure definite information as to the amount of land it was expected would be sown to wheat this fall, and the kind of crop it was to follow, the following questions were sent out in the form of a questionnaire to five thousand correspondents: What is the estimated acreage that will probably be sown, and how much will be sown on ground now growing corn, on stubble, and on fallow land?

From the more than two thousand replies received, a summary reveals that 3,315,000 acres will be planted in corn ground, 3,651,000 acres in stubble, and 1,075,000 in fallow, or a total acreage of 8,042,000 acres. About 800,000 acres will be sown after other crops, such as the sorghums, potatoes, beans, millet, and on newly broken sod. These returns indicate that a total sowing of about 8,850,000 acres for the state as a whole is contemplated, which is approximately 650,000 acres less than last fall's sowing when 9,500,000 acres were seeded. The decreased acreages anticipated by reporters is largely in the counties that lost their 1917 wheat crop.

EARLY PREPARATION INCREASES YIELDS

There is an abundance of evidence on every hand to show conclusively that wheat sown on stubble land that was plowed in July produces anywhere from five to ten bushels to the acre more than wheat on the same kind of land that was not plowed until September or just before planting. In normal times a large proportion of the wheat planted in the state is on September plowed land. This is the primary reason why we have such a low acre yield in this state. The thing that should be done now is to prepare the stubble land early for fall sowing of wheat. It is the easiest, the most practical and the most inexpensive way of substantially increasing the acre yield and the total harvest of wheat in this state. It is by far more feasible than to increase the acreage, with our limited man-power and seed. We should first emphasize the importance of putting in well what wheat we sow and only put in as much as we can plant well. It would be a mistake for anyone to advocate putting in an extensive acreage at the sacrifice of thorough and careful preparation. Man-power and horsepower are entirely too scarce and valuable to take a chance on losing labor and seed by scattering the wheat over a large area poorly prepared. This year especially when the seed is very scarce and very expensive and when many farmers have their entire supply of seed to buy, they should give special attention to the preparation of the seed bed. The Council of Defense ought to exhaust every means at its disposal within the next month to promote a sentiment in favor of early preparation of the seed bed for wheat.

"'Early plowing and early disking' should be our slogan," said the chairman of the committee. "We ought to talk it at all times wherever we may be and before all kinds of audiences. We should urge deep plowing in July and early August and where plowing is out of the question, early disking."

Corn-stalk ground, next to summer fallow and early plowing, furnishes the best seed bed for wheat. All that can be done now until planting time is to see that the corn is well tilled and free from weeds, and most farmers are doing everything that their equipment, time and labor will permit.

YIELDS GOOD ON FALLOW LAND

The million acres of fallow ground is probably double the amount that has ever been fallowed before for wheat. This year a good crop has been produced wherever wheat was sown on fallow land. Yields of twenty-five to thirty bushels are being reported by isolated farmers in Western Kansas who sowed on fallow ground. At the Hays Station several thousand bushels of wheat on fallow land will make twenty bushels to the acre where other methods have resulted in practically nothing.

PLENTY OF SEED LOCATED

Considerable uneasiness has been manifest for some time regarding the supply of good seed. Many counties of the state where an excellent quality of hard wheat is grown, lost their entire crop and will have to import their seed. Less than 3,500,000 acres of wheat will be harvested in the state this year. A part of this is in the eastern third of the state where soft wheat mainly is grown. The committee decided it was highly important that as many fields of good hard wheat be located and listed for seed as possible. Hence, in the last twenty days it has undertaken in co-operation with the Agricultural College, the State Board of Agriculture, the government man located in Kansas, and the agricultural commissioner of the Santa Fe, to locate farmers producing pure hard red winter wheat. Twenty-odd men were assigned to this task. Four men in four motor cars were assigned to each county, beginning in the counties of the southern border and working northward, covering the counties indicated on the map. Care was exercised to ascertain fields that were free from rye and other varieties of wheat. On the map is indicated by means of different shading the areas where the seed may be found in carload lots pure, where it is mixed with soft wheat, and again where it is mixed with rye, etc. Names of the farmers have been ascertained and the estimated number of bushels each will have for sale, aggregating for the whole 4,670,000 bushels of good seed. The amount available in the different counties inspected ranges from 810 bushels in Morris to 692,521 bushels in Harper County.

INCREASING ACREAGE

The primary obstacle standing in the way of the planting of ten million acres of wheat is the cost of providing seed wheat and the difficulty of securing it. The counties that lost their wheat crop this year are the counties that report a probable reduced acreage this fall. The main reasons for this are lack of seed and lack of money with which to buy expensive seed. Even men accustomed to sowing 1,000 to 1,500 acres and who lost their wheat this year are hesitating to pay $2.50 to $3 a bushel for seed and consequently are showing a tendency to curtail their normal acreage. Many of the wheat growers of the state are tenant farmers and it is going to be up to the landlords or someone else to furnish the seed or the collateral or take a part of the risk, if we are going to get out even a normal acreage, to say nothing about increasing the acreage.

SEED REQUIREMENTS

The investigations of the committee indicate that some forty counties do not expect to raise enough wheat for seed. Based on the area sown last year and estimating a bushel to the acre as the average requirement in sowing, between 2,000,000 and 2,500,000 bushels of seed will have to be shipped into deficient counties. The studies made further indicate that the payment on about two-fifths of this quantity will have to be deferred until the 1918 harvest. The 2,000,000 to 2,500,000 bushels of wheat for seed that will need to be imported to these counties should be contracted for at once from the farmers who are producing good seed. Otherwise it is going to be moved through the regular channels and mixed with the seed from inferior fields and Kansas will lose its chance to secure a first class seed supply. This seed must be reserved now before the wheat gets away from us. This will require quick action, as it is not likely to be in the hands of farmers very long. The crop in the counties raising a surplus has been or is now being harvested and threshing will soon begin.

SEED SITUATION SERIOUS

Kansas cannot expect at the outside a wheat crop this year of more than about 42,000,000 bushels. This amount in itself is less than the average annual consumption of our flour mills alone. With the world's need for wheat and the keen competition for it, the urgent need for making sure of our seed is apparent. If we are to sow ten million acres—and the world has a right to expect that Kansas, the nation's premier wheat state, will in this emergency sow that much—it will mean an amount equivalent to one-fourth of this year's crop.

To maintain last fall's acreage, the investigations of the committee indicate it will be necessary to import seed that will cost probably not less than $4,000,000 and may amount to $7,500,000, depending on the exact quantity and the price per bushel. It is estimated that three-fifths of the amount will be promptly paid for on delivery, as the majority of the farmers are abundantly able financially to do so. Some plan must be devised to finance the seed wheat proposition. Growers are not inclined to increase their obligations very extensively. Terms to renters must be liberal if a maximum acreage is sown. If the crop of next year should be an average in production, the wheat raised in two counties of the state would equal if not exceed the total outlay for financing the seed this fall. An investment of say $5,000,000 for seed may return wheat valued conservatively at $60,000,000.

It is a prime duty for Kansas to sow ten million acres of wheat. Every farmer having a well prepared seed bed should be provided with the necessary seed through some plan subject to such terms as local county organizations determine.

If the war is to be won with food, Kansas has a heavy responsibility. As the leading wheat state, her obligation is great to produce breadstuffs in the largest possible quantities. The first essential to this is a large acreage sown on the best seed bed that can be made ready. We should sow at least ten million acres, which is little more than was sown last fall.

"Business as usual" does not apply to the agricultural industry in this emergency. Unusual measures must be employed to accomplish the end sought, and these measures must be taken at once if we are to succeed in rendering the service to humanity that the nation and our allies have a right to expect.

While the report of the Agricultural Production committee of the Council of Defense had to do mainly with the wheat situation, some most interesting reports were made on the spring planting. According to the June report of the State Board of Agriculture, supplemented by information from special agents sent into the field to investigate conditions generally, and from farmers, county chairmen, county agents, bankers, millers, grain men and others in a position to know, there was planted to crops in Kansas as many acres in the aggregate for the year 1917 as in the previous year. To do this it was necessary for the farmers to plant, in addition to the usual acreage available for spring crops, most of the six million acres of land on which wheat failed. The committee's facts reveal that of the nearly six million acres of winter wheat that failed, 5,500,000 acres were planted to spring crops, as corn, oats, barley, and the sorghums, with the remaining acres lying fallow. This is splendid evidence that the farmers of Kansas are fully awake to the food situation and nobly responded to the present emergency, just as they have in the past risen to meet unusual conditions. The following statement shows, in detail, the acres in the crops named in 1916 and 1917, aggregating in each year about 18,400,000 acres:

	ACRES 1916	1917
Wheat	7,782,570	3,525,320
Corn	6,964,724	9,200,000
Oats	1,461,127	2,225,414
Rye	64,057	105,800
Barley	376,416	890,000
Saccharine sorghum	510,536	777,000
Milo	133,413	369,000
Kafir	1,090,807	1,448,000
Total	18,383,650	18,540,534

(Continued on Page Fourteen)

Kansas Farmer Dairy Club

Feeding For Milk

MILK cows must be fed as individuals. This is one of the most important lessons for the dairyman to learn. Dairy club members are interested in feeding a single cow and it will be easy for you to get this fundamental principle of profitable dairy feeding firmly fixed in your minds before the end of the year. If you carry this lesson with you when you grow up and have a whole herd of cows to feed, you will be almost sure to avoid the mistake too often made by dairymen of feeding all the cows in the herd alike.

If cows are to be fed economically, each animal should be fed according to its capacity for production. The average production of the Kansas milk cow is low and one of the principal reasons for this is that she is not properly fed. It requires a high degree of intelligence to feed a cow so as to get the most profitable returns. There is probably no better teacher than Nature, and economic feeding thus becomes to some extent a study of the lessons which Nature teaches. Cows usually make their largest and most economical production in the early summer when they can get all the fresh grass they want. In Kansas this period is comparatively short. By doing our best to supply these early summer conditions the year around, we will obtain the largest and most profitable returns from the cows we feed for milk.

In a recent article in the Kansas Industrialist, O. E. Reed, professor of dairying at the Agricultural College, says that the quantity of milk that a cow gives or is capable of giving is an indication of the quantity of feed she must have.

The first use to which the animal puts its food, whether producing milk or not, is to maintain the functions of the body. The feed in excess of this amount is used for producing milk, storing fat, or for growth of the fetus.

COWS OFTEN UNDERFED

Underfeeding is perhaps more common than overfeeding. The effect of underfeeding may not be noticed at once, as the cow will produce milk for a time by converting the surplus flesh of her body into milk. Hence, if a cow declines in weight while she is producing milk, it is an indication that she is not receiving enough feed. On the other hand, the over-fed cow may put fat on her body or she may get off feed.

Feeds like grass which contain the natural juice of the plant are called succulent feeds. A succulent ration should be maintained during the winter. Such a feed serves to keep the digestive organs in good condition. This succulence may be secured by feeding silage or roots. Silage makes the best succulent feed in this state because it is possible to obtain large yields of corn, cane, or kafir, which makes excellent silage.

BULK AND NUTRIENTS NEEDED

The feeds in a ration must be such as to provide a sufficient bulk to satisfy the appetite and feeding capacity of the animal, and to furnish the amount of nutrients needed by the cow. An animal may be fed enough nutrients in the form of grain to perform her work, but she may receive too little bulk to be satisfied.

The roughage should form the foundation of the dairy ration. By roughage we mean hay, fodder or silage. A cow should have all the roughage she can clean up, and the grain ration should be regulated by the amount of milk produced. A cow should be fed one pound of grain to each three pounds of rich milk produced and one pound of grain to four pounds less rich milk.

RATION MUST BE BALANCED

The three substances which must be considered in making up the ration of the dairy cow are protein, carbohydrates and fats. These substances are found in all feeds but in varying proportions. The protein, or nitrogenous substance, is the most expensive. It is used by the animal in the production of hair, hoof, hide, horn, blood, and muscle. Alfalfa, clover hay, cottonseed and linseed meal, bran, oats, and gluten feeds contain a high per cent of protein. The carbohydrates and fats produce heat and furnish energy to make the fat that is stored up in the body and in the milk. Corn, kafir, cane, corn silage, timothy hay, oats, and wheat straw contain a high per cent of carbohydrates.

A balanced ration must contain both protein and carbohydrate foods. Alfalfa and clover furnish protein in form of roughage. In order to balance the ration it is best to feed a grain rich in carbohydrates. If the roughage consists of cane or kafir, then a grain ration such as bran or oats must furnish the protein. The protein feeds are the most expensive feeds on the market. If alfalfa, cowpeas, and clover can be grown in the locality, it is cheaper to use them in the dairy ration.

Dairy Club Prizes

The following prizes are offered for work in the Kansas Farmer Dairy Club:

Beatrice Creamery Company, hinge-door silo.

R. J. Linscott, Holton, Kansas, pure-bred Jersey bull calf.

Empire Cream Separator Company, cream separator.

Beatrice Creamery Company, cream separator.

Hinman Milking Machine Company, two-unit milking machine.

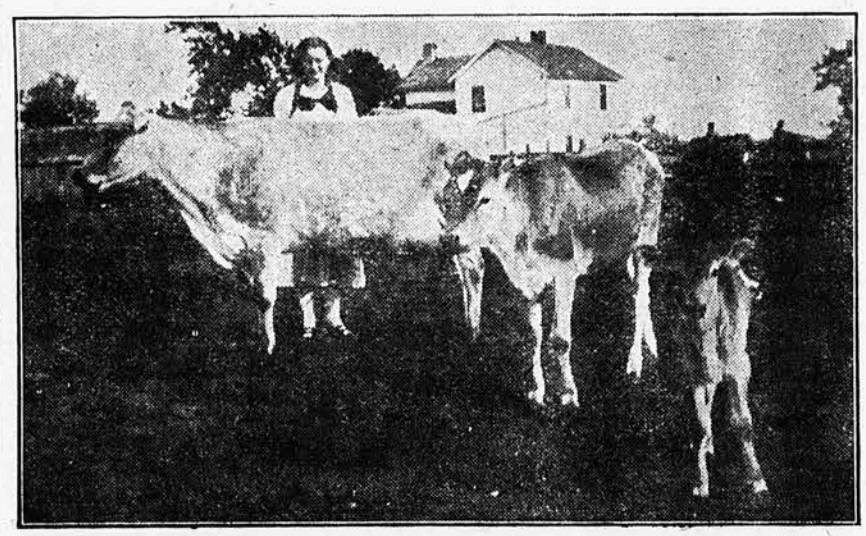
Hunt-Helm-Ferris Company, complete cow stall.

N. A. Kennady Supply Company, twelve-bottle Babcock milk tester.

In our May 20, 1916, issue, KANSAS FARMER offered the following special prizes:

To the member who wrote us oftenest telling of the interesting things that happen in connection with the club work and things learned from it, and who sent us the best pictures, we offered $3 and one year's subscription to KANSAS FARMER. To the one ranking second, $2 and a year's subscription to the paper; third, $1 and a year's subscription; fourth and fifth, one year's subscription each.

Young people who contemplate attending business college or auto training school this fall or winter will find it to their advantage to write us. KANSAS FARMER has some information that will be of genuine interest to you. Address DESK D, KANSAS FARMER, Topeka, Kan.



HERE IS DORA BRADER AGAIN, THIS TIME WITH HER WHOLE HERD—CREAMY, INEZ, AND MABEL

Advanced Registry Records

BREEDERS of dairy cattle in Kansas are becoming greatly interested in advanced registry tests for their cows. It is only by having these advanced registry records that the productive capacity of dairy cows can be established where the owners are not known. There are some herds in Kansas where many cows capable of making good advanced registry records are found, but the owners have for various reasons not attempted to put their cows on official test. Making advanced registry records is one of the things that must be done in handling pure-bred cattle. Many good records are now being made in Kansas herds.

Any cow that is registered is eligible for advanced registry tests. The yearly requirement for making the advanced registry is the same for the Holstein, Jersey, and Guernsey breeds. If the test begins the day the cow is two years old or previous to that day, she must produce within a year 250.5 pounds of butter fat. For each day the cow is over two years of age at the time the yearly official record begins, the amount of butterfat she must produce in a year is increased by one-tenth of a pound. This ratio of increase continues until the cow is five years old at the beginning of the test, at which time the butterfat requirement is 360 pounds. This is the amount of butterfat required for all cows five years old and over, of these three breeds.

In making these yearly records a representative of the agricultural college of the state or someone recommended by the institution visits the herd and milk from the cow on test is weighed for two days. Each milking is sampled by the tester in charge and the Babcock test made at once. The owner of the cow keeps a record of the weight of milk produced on the other days of the month. The butterfat test for the two days the tester has charge is used as the basis for the month's production of fat. The tester's weights for the milk are used as a check on the weights recorded by the owner.

The Ayrshire yearly standard of production required for advanced registry is 214.3 pounds of fat when the cow begins the record at two years of age, with the addition of .06 of a pound of fat for each day over that age up to three years, when the standard calls for 236 pounds of fat. From three years of age up to five an addition of .12 of a pound of fat is made for each succeeding day. The requirement at five years of age is 322 pounds of fat.

The different dairy breed associations have established certain abbreviations to designate the rank of cows in the advanced registry. A. R. stands for advanced registry of Guernseys and Ayrshires. R. M. is the register of merit for Jerseys. A. R. S. O.—advanced registry official—is used to indicate Holstein cows which have met the requirements for a year's record. A. R. O. is used to indicate Holstein cows that have met the requirements in a seven-day test.

Breeders of pure-bred cattle should by all means endeavor to make as many advanced registry records as possible. These records increase the value of the individual largely through enhancing the value of offspring that may be offered for sale. Nearly all buyers of bulls of dairy breeds are now insisting that the dams of the bulls they purchase have good advanced registry records. While private records are very valuable in building up high-producing dairy herds, the advanced registry records are almost necessary in order to have the official stamp of approval on the records that have been made. Advanced registry records are so closely supervised and checked by the record associations that they are accepted as reliable. The reliability of private records depends entirely upon the reputation of the man making them, and while a man's reputation may be sufficient to guarantee the accuracy of his private records in his own neighborhood, they will not be accepted by strangers at a distance.

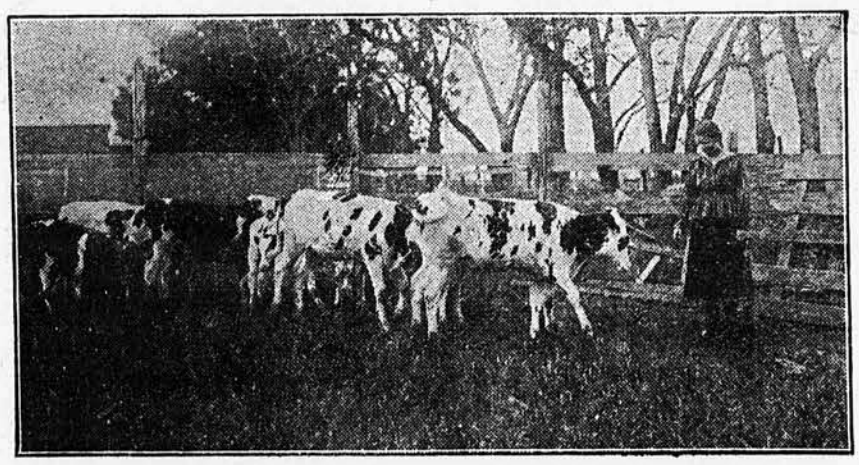
Cow Test Report

The following is the record of the cows in the Dickinson County Cow Testing Association that reached the forty-five pound mark in butter production for the month ending March 30:

Owner—	Pounds Milk	Per Cent of Fat	Pounds Butter 80% Fat
J. A. Engle, H.	1,140	3.3	47.0
J. A. Engle, H.	1,215	3.0	45.6
J. A. Engle, H.	1,161	3.9	56.6
Fred Muench, J.	1,005	4.9	61.5
Fred Muench, J.	717	5.7	51.1
Fred Muench, J.	951	5.0	59.5
Fred Muench, J.	837	4.6	48.1
A. L. Eshelman, H.	1,650	3.1	64.0
A. L. Eshelman, H.	846	4.3	45.5
A. L. Eshelman, H.	705	3.5	45.5
A. L. Eshelman, H.	1,218	4.3	65.5
J. M. Gish, H.	897	4.4	49.4
J. M. Gish, H.	1,161	3.6	52.3
Mott & Seaborn, H.	1,020	3.8	48.5
Mot t& Seaborn, H.	1,005	3.6	45.2
Mott & Seaborn, H.	1,278	3.4	54.4
Mott & Seaborn, H.	1,557	3.1	60.4
Mott & Seaborn, H.	966	3.8	45.9
Mott & Seaborn, H.	1,446	3.4	61.5
Mott & Seaborn, H.	1,002	3.6	45.1
J. A. Welshar, H.	1,095	3.8	52.0
Lenhert & Son, H.	1,293	3.7	59.8
Ira Zercher, H.	867	4.5	48.7
Wilcox & Son, H.	1,974	2.8	69.1
Wilcox & Son, H.	1,776	3.3	73.3
Wilcox & Son, H.	1,494	3.3	61.6
Wilcox & Son, H.	1,443	3.4	61.4
Wilcox & Son, H.	1,395	3.6	62.7
Wilcox & Son, H.	1,842	3.8	88.0
Wilcox & Son, H.	1,308	3.1	50.6
Wilcox & Son, H.	1,575	3.5	68.9
Wilcox & Son, H.	1,158	3.2	46.4
George Lenhert, H.	1,236	3.2	49.5
George Lenhert, H.	1,188	3.2	47.5
H. S. Engle, H.	1,293	4.0	64.6
H. S. Engle, H.	1,119	3.6	50.3
H. S. Engle, H.	1,308	3.1	50.6
H. S. Engle, H.	1,014	3.9	49.4
H. S. Engle, H.	1,035	4.1	52.5
H. S. Engle, H.	1,038	4.0	51.6
D. S. Engle & Son, H.	1,227	3.3	50.6
D. S. Engle & Son, H.	819	4.7	48.1
E. S. Engle & Son, H.	1,599	3.5	70.0
E. S. Engle & Son, H.	1,329	3.8	63.1
E. S. Engle & Son, H.	1,392	3.1	54.0
E. S. Engle & Son, H.	1,233	3.1	47.7
E. S. Engle & Son, H.	1,050	3.7	48.6
E. S. Engle & Son, H.	1,095	4.1	56.1
E. S. Engle & Son, H.	2,502	2.63	82.3
E. S. Engle & Son, H.	1,566	3.12	61.1
E. S. Engle & Son, H.	1,218	3.12	47.5
E. S. Engle & Son, H.	1,443	3.73	67.4
E. S. Engle & Son, H.	1,811	3.27	74.0
E. S. Engle & Son, H.	1,464	3.31	51.0

In the preceding table "H" stands for Holstein and "J" for Jersey.

Make your hoe this summer keep your can opener busy next winter.



HOLSTEIN CALVES ON W. W. FINNEY FARM, LYON COUNTY

Feed Crops Still Safe

THE crop report from the weather bureau covering conditions all over Kansas up to July 3 states that corn and grain sorghums—and in the southwest counties, broom corn—are practically the only crops that have not been damaged yet by lack of rain. They are all behind the season and much of them have had to be replanted, but as a rule they are clean and well cultivated and have a good color. The acreage of each is also quite large. In the northeastern counties corn made a satisfactory growth this week, but elsewhere its growth was slow and will be still slower unless rain comes soon.

In view of the newspaper reports that crops were burning up in Western Kansas, this report from the weather bureau giving the condition of the corn and grain sorghums is most encouraging news. It is evident that feed crops are a long way from gone. The acreage of these crops is greater than in years, and, if reasonable conditions prevail and the crops are given good cultivation, Western Kansas may easily grow a record-breaking feed crop. A large use should be made of the silo in preserving these crops in order that they be made to yield the largest possible cash returns when fed to stock. The silo, feed crops, and good live stock are the surest things for keeping the Western Kansas farmer from having to borrow money to pay the grocery bills while he waits for another crop to grow. It does not require much money to get a silo, since the pit silo can be used with the greatest of success all over Western Kansas.

The Corn Ear Worm

The corn ear worm is a most serious pest in the corn field. It is especially objectionable in a sweet corn patch, but in the aggregate causes a heavy loss in field corn. In the garden patch of sweet corn it is practical to control the pest with powdered arsenate of lead. The amount of injury can be greatly reduced by thoroughly dusting the silks with this poison.

The eggs of the corn ear worm are laid on the silks. When the eggs hatch, the larvæ work down into the ear and feed on the silks and kernels. The average number of ears of corn injured by this pest in Kansas during the six years preceding 1915 ranged from 85 to 95 per cent. In the year 1915 at the Manhattan Experiment Station the damage was reduced to 63 per cent by dusting the silks with powdered arsenate of lead, and on ears that were injured the damage was so slight as to be almost negligible. In almost every case only one or two grains were injured on each ear, and the usual molds and fungi which accompany corn ear worm work were not present. The normal grain damage is three to five per cent on field corn and ten per cent on sweet corn where the silks are not dusted, while it is only one or two per cent where they are dusted.

Silks should be kept dusted from the time they appear until dry. The preparation consists of three parts of powdered arsenate of lead and one part sulphur. Lime or flour may be substituted for the sulphur. Five or six applications should be made. A good method of application is to apply with a cheesecloth bag or by means of a perforated can.

Bermuda Grass and Bindweed

L. J. E., a KANSAS FARMER reader living just across the line in Oklahoma, writes that he noticed an article on the bindweed in KANSAS FARMER and asks if a specimen which he inclosed is bindweed. He asks to have it identified, how to best destroy it, whether anything will eat it, whether it will crowd out the prairie grass and shrubs in the yard where the ground is hard. He also asks what is the best grass to plant.

We sent this specimen to Prof. H. F. Roberts of the Agricultural College, who identified it as the field bindweed. The best way to destroy it is to salt it at the rate of ten tons of salt to the acre. We discussed this in some detail in a recent issue of KANSAS FARMER. Pigs will eat the weed, and in some cases it has been killed out by pasturing it very heavily with pigs. It will crowd out prairie grass, but is not likely to trouble shrubs. Professor Roberts states that it is a pretty good competitor for almost anything that grows and is in fact the worst weed we have.

We believe Bermuda grass is the best grass our correspondent can plant about his house, and likewise for pasture. This grass does not make as attractive a lawn as Kentucky bluegrass, on account of its dull color and running stems, which make it hard to clip with a lawn mower, but for a hot climate and especially where there is little shade it will make the most satisfactory lawn grass that can be planted. The Bermuda grass is about the only grass that will keep the bindweed busy as a competitor.

Poison the Grasshoppers

Grasshoppers are hatching in many parts of Western Kansas. Prompt and vigorous action in using the poisoned bran mash flavored with fruit juice, which has been thoroughly tested in the state in the last few years, will check their ravages. The ingredients used are twenty pounds of bran, one pound of Paris green, white arsenic or London purple, two quarts of syrup, three oranges or lemons, and three and one-half gallons of water.

Mix the bran and Paris green, white arsenic, or London purple, thoroughly while dry in a wash tub. Squeeze the juice of the oranges or lemons into the water and chop the remaining pulp and the peel to fine bits and add to the water. Dissolve the syrup in the water and wet the bran and poison with the mixture, stirring at the same time to dampen the mash thoroughly.

The damp mash or bait should be sown broadcast in the infested areas early in the morning, or at the time the grasshoppers are beginning to move about after their night's rest. It should be scattered in such a manner as to cover from four to five acres with the amount of bait made by using the quantities of ingredients given in the formula.

Since little of the bran mash is eaten after it becomes dry, scattering it broadcast in the morning, and very sparingly, places it where the largest number will find it in the shortest time. Sowing it in this manner also makes it impossible for birds, barnyard fowls, or live stock to secure a sufficient amount of the poison to kill them.

In order to secure the best results on alfalfa fields, the bait should be applied after a crop has been removed and before the new crop has started. If the insects are moving into the corn, alfalfa, new wheat, or garden, a strip of the poisoned bran mash should be scattered early in the morning along the edge of the crop into which they are moving. If they have already spread into the fields the bran mash should be spread over the infested portions. Inasmuch as the grasshoppers may keep coming into the crops from adjoining fields, it will be necessary in several cases to make a second and even a third application of the bait at intervals of from three to four days.

Value of County Agent

A member of a county farm bureau in a neighboring state gives this estimate of the value of the county agricultural agent:

"I pay about $150 taxes and I figure that the county agent last year cost me just 19½ cents. In figuring the benefit that I have got from the office, I gave the agent credit for the extra profit that I made on the first beef that I sold through the public market. He was responsible for starting the market, so I gave him credit on just one of the animals that I sold.

"My sheep were dying and Mr. Robb came out and found that they had sep ticemia, and got me some vaccine and vaccinated the flock. No more of them died and so I gave Mr. Robb credit for just one sheep, although I might have lost the whole bunch without his help. Mr. Robb told me to take my goats out

of the swampy pasture or they would probably get leeches. They were nice and fat and I didn't think it would hurt them if I left them there, but they got leeches all right and some of them died. I didn't give Mr. Robb any credit for that, although his advice was worth something.

"He told me how to avoid wireworms in my corn by growing it after a crop on which wireworms don't work. I didn't give him any credit for that. In all my figuring I gave him just as little credit as I possibly could, and I find that he has made me enough money on this basis to pay my part of the tax for his office for two hundred years."

Do Not Neglect Gardens

Keep everlastingly at it!

Now that the garden has been planted, start the fight on weeds and insect pests and keep it up throughout the whole season. Don't be a quitter in the campaign for increased food production.

Many persons lose their enthusiasm in garden work in hot weather, when cultivation and good care is needed most. Individuals usually find it easy to garden in April or May, but mighty hard work in July or August. "Cultivation, first, last, and all the time," should be the slogan of every patriotic man and woman.

In cultivating, use efficient tools, either hoes and other hand tools or horse cultivators, depending on the size of the garden. Cultivation is important, for it saves moisture, kills the weeds, admits air into the soil, and increases the supply of plant food.

Watering is another important point. It is advisable irrigate or sprinkle vegetables in the evening to prevent loss of moisture through evaporation. A good plan for a small garden is to make shallow furrows with a hoe and allow the water to run into these shallow ditches between the rows. Save the moisture by cultivation whenever possible.

Insect enemies are also to be guarded against in the garden. The flea beetles attacking the radish can be killed by dusting with one part powdered arsenate of lead mixed with ten parts flour, or with arsenate of lead dissolved in water at the rate of one ounce to one gallon of water. The green aphis, or plant lice, which suck the sap on under side of leaves, are best controlled by "Black Leaf 40" applied at the rate of one teaspoonful to a half gallon of water plus a small piece of soap. One pound of soap to six gallons of soft water will also control it.—M. F. AHEARN, K.S.A.C.

Alma, Kansas, now has a feed and sales barn built by the public-spirited men of the town and surrounding country. The building is for the convenience of the growers of pure-bred cattle and other live stock in that community. It cost $3,000, and will shelter 250 head of cattle; feed pens outlying for as many more. In one end is a pavilion, seats rising in tiers for 1,500 persons, where sales are conducted. The institution was dedicated February 10, when 150 head of Hereford steers were sold at auction, bringing $46,000. It stands within 100 yards of the Santa Fe Railway station. Wabaunsee County is famous for pure-bred beef cattle, and Alma is one of the most attractive little towns in the state.

National Grange Master Visits Kansas

KANSAS is again to welcome Oliver Wilson, Master of the National Grange, who will spend the week from July 23 to 28 in meeting six or seven gatherings in different selected Grange points in our state. He begins at Valley Falls July 23, the Northeast Kansas annual Grange event.

Brother Wilson, as he prefers to be called, does not 'deliver addresses' by his own statement, but meets the people at such gatherings with a plain heart-to-heart talk. Few men have ever presented a more powerful message than National Master Wilson. His whole soul is thrown into it, and without flourish of trumpets he brings his hearers face to face with the most practical issues of life on the farm and in the farm community.

OLIVER WILSON, NATIONAL GRANGE MASTER

Although thirty-two years a Grange officer, he has never sought positions—they have sought him. He is the only man who has been Master and Lecturer of Subordinate, Pomona, State and National Grange. And, through it all, until compelled to move nearer facilities for doing his work, he has lived continuously upon the farm, which he even now owns and directs, and outside of which he has no other interest whatever.

When the law was passed in Illinois establishing the Farmers' Institute, he was selected as the first superintendent. It was in 1873 that he joined the Magnolia Grange No. 179, Putnam County, Illinois, and two years later was elected its master. Ten years later he was lecturer of the State Grange, and held the office eight years, and that of Master of the State Grange sixteen consecutive years. He was lecturer of the National Grange two years, and then began his term as National Master, now finishing his sixth year in that position, having been twice re-elected.

As spokesman for two others, State Masters, upon the national legislative committee representing the needs and rights of the American farmers, he is a well known figure in Washington, conferring with congressional committees and with the President as need arises. With all of the remedial and constructive laws that affect the farmer during recent years he has had much to do, and to the Grange in the thirty-five states where it is organized and to the great body of unorganized farmers also his service has been invaluable. The recognition of the standing of the agricultural interests of the country has been accomplished by the tireless work of a small group of the heads of the farmer orders, and not by outside forces.

National Master Wilson is one of the country's clearest thinkers, ready in terse and simple expression that all can grasp, with a manly force and whole-souled earnestness that wins. He comes to Kansas with a message that none can afford to miss. A trip of many miles to hear him will be time and money well spent, for Farmer Wilson of Illinois and America knows the farmers' problems, and comes at them from within the farmers' own ranks, all his interests, outside of the duty in Grange work to which he has been called, being on his farm.

Not only farmers but other citizens of all classes would be benefited by hearing Mr. Wilson, who as the national head of an organization of more than a million members, now at the end of a half century of life and growth, is one of the leading exponents of agricultural conditions and possibilities, a theme that is commanding more attention than any other at this time.

The schedule for the week is as follows: July 23, Valley Falls; July 23, night meeting, Topeka, Memorial Hall; July 24, Ottawa; July 25, Independence; July 26, Oswego; July 27, Newton, and July 28, Winfield.

No more popular classification in the live stock shows has been made than that of the futurity classes, admitting junior and senior bull and heifer calves, made by the American Shorthorn Breeders' Association at a number of the leading fairs and shows. At four of these shows—the Iowa State Fair, Des Moines; the Ohio State Fair, Columbus; the American Royal, Kansas City, and the International, Chicago—the Shorthorn Association has appropriated for the futurity classes alone a total of $7,000. In the junior and senior bull and heifer calf classes at the Iowa and Ohio State Fairs, fifteen moneys are offered in the futurity stakes. The first, second, third and fourth winners each draw $25; the fifth, sixth, seventh and eighth winners, each $20; the remainder $10 each. At the American Royal and the International, the first winner draws $65, with a slight decrease down the line, the twentieth winner receiving $20. It should be understood that these prizes are in addition to the appropriations offered in the regular classifications for Shorthorns at these shows. The appropriations made by the Association for 1917 at the various fairs and shows aggregate $50,000. The purpose of these futurity appropriations—and this purpose is suggested in the number of prizes offered—is to encourage as many breeders as possible to exhibit their calves at these important shows—a substantial means of advertising. In order that the small breeder may have an equal chance with the larger breeders and experienced showmen, the rules do not admit of substitution after the entries have been made. The distribution of the prizes at the larger shows is an encouragement to breeders to participate. At the last International, for instance, the prize winners represented twenty different states and Canada.

When writing advertisers, please mention KANSAS FARMER.

Live Stock and Sweet Clover

WITH the exception of alfalfa on fertile soils, no other leguminous crop will furnish as much nutritious pasturage from early spring until late fall as sweet clover, when it is properly handled. Live stock thrive on it. Animals which have never been fed sweet clover may refuse to eat it at first, but this distaste can be overcome by turning them on the pasture as soon as the plants start growth. There is practically no danger from bloat from sweet clover, according to Farmers' Bulletin 820, "Sweet Clover: Utilization," which has just been issued by the United States Department of Agriculture.

When sweet clover has been seeded two years in succession on separate fields, the fields sown the first year may be pastured until the middle of June, when the stock should be turned on the spring seeding. When handled in this manner excellent pasturage is provided throughout the summer and a hay or seed crop may be harvested from the field seeded the previous season.

Some of the best pastures in Iowa consist of a mixture of Kentucky bluegrass, timothy, and sweet clover. On one large farm stock is pastured on meadows containing this mixture from the first part of April to the middle of June. From this time until the first part of September the stock is kept on one-half to two-thirds the total pasturage acreage. The remainder of the pasture land is permitted to mature a seed crop. Usually from two to four bushels per acre of recleaned seed is obtained from this portion of the pasture. After the seed crop is harvested, the stock again is turned on to this acreage where they feed on the grasses and first-year sweet clover plants until cold weather. The seed which shatters when the crop is cut is usually sufficient to reseed the pasture.

It is essential that sufficient stock be kept on the pastures to keep the plants eaten rather closely, so that at all times there will be an abundance of fresh shoots. Grazing induces the plants to send out many young shoots close to the ground, so that when the plants are permitted to mature seed a much larger number of stalks are formed than would be the case if the first crop were cut for hay. Excellent stands of sweet clover will produce an abundance of pasturage for two to three mature animals per acre, from early spring to the middle of June. Cattle which are pastured on sweet clover alone crave dry food. Straw or hay should be present in the meadow at all times.

Experiments by many farmers in the Middle West show that sweet clover is an excellent pasture far dairy cattle. When cows are turned on sweet clover from grass pastures the flow of milk is increased and its quality improved. Other conditions being normal, this increase in milk production will continue throughout the summer as the plants produce an abuncance of green forage during the hot, dry months. If pastures are handled properly they will carry at least one milk cow to the acre during the summer months. Tainting of milk and butter, sometimes reported, may be avoided by taking the cows off the pasture two hours before milking and keeping them off until after milking the following morning.

Sweet clover has proved to be an excellent pasturage crop for hogs. It is usually seeded alone and pastured for two seasons. The hogs may be turned on the fields the first year as soon as the plants have made a six-inch growth. From this time until late fall an abundance of forage is produced as pasturing induces the plants to send out many tender, succulent branches. Pasturing the second season may begin as soon as the growth starts in the spring. If the field is not closely grazed the second season it is advisable to clip it occasionally, leaving an eight-inch stubble, so as to produce a more succulent growth.

An acre of sweet clover pasture ordinarily will support twenty to thirty shoats, in addition to furnishing a light cutting of hay. For the best growth of the hogs they should be fed each day two pounds of grain per hundredweight of the stock. Hogs are very fond of sweet clover roots and should be ringed before being turned on the pasture. The tendency to root may generally be overcome by adding some protein to the grain ration. Meat meal serves this purpose very well.

Sheep relish sweet clover and make rapid gains when pastured on it. Care must be taken to see that pastures are not overstocked with sheep, as they are likely to eat the plants so close to the ground as to kill them. This is especially true the first year before the plants have formed crown buds. Yellow biennial sweet clover probably will not suffer from this cause as much as the white species, because the plants make a more spreading growth and are not likely to be eaten so closely to the ground.

Horses and mules do well on sweet clover pastures. On account of the high protein content sweet clover provides excellent pasturage for young stock. No cases of slobbering have been noted with horses.

The sooner into the can, the fresher the taste next winter.

THE twenty or more members of the Boy's Hampshire Pig Club of Kansas are here shown getting outside of a picnic lunch, the principal portion of which consisted of sandwiches of barbecued Hampshire pig. The big man seated at the end of the table is E. C. Stone, secretary of the American Hampshire Swine Record Asociation. George Ela, who organized the club, is acting as waiter. Each boy has a Hampshire sow pig and all are full of enthusiasm and are doing the best they can to win the prizes. Mr. Stone stated that he wanted the boy winning in the state contest to be his guest either at the National Swine Show in Omaha or he International Live Stock Show in Chicago. Carl Thompson of the Agricultural College gave the boys a most practical talk, emphasizing the need for keeping the pigs free from worms and internal parasites of all kinds and telling them how to care for the sow and pigs at farrowing time.

The Kansas Hampshire Breeders' Association had a meeting, and a large crowd sat down to the dinner of barbecued pig, but the livest feature of the day was the meeting of the boys shown in the cut.

Equipment for Farm Sheep

WE RECEIVE many inquiries concerning the care of sheep on the farm. Equipment for raising sheep on farms need not be expensive. Elaborate and expensive structures do not insure economy in management and are not essential to the welfare of the flock. In mild latitudes little housing of any sort is needed, but where winters are longer and more severe, some protection from storms is required. Under such circumstances the buildings in which it is proposed to house the sheep should be dry, well ventilated, and free from drafts, but no special provisions for warmth are required.

Where the flock contains a hundred or more ewes, it is desirable to provide a separate building for it. Smaller flocks can be cared for in sections of barns which contain other stock. In Farmers' Bulletin 810, "Equipment for Farm Sheep Raising," a new publication of the U. S. Department of Agriculture, a number of plans are given for different kinds of sheep barns, and also for such other equipment as pens, feeding troughs, hurdles, and fences. A good supply of feed racks, grain troughs, etc., says the bulletin, can be provided at a small expense and will both save labor and prevent waste of feed.

Because of the wide differences in climatic conditions under which sheep are raised, it is impossible to recommend a particular type of building for universal use. A few fundamental principles, however, should be followed, no matter what type of building is to be constructed. In the first place, the site should be dry and well drained. Ample yard space should be available adjacent to the main barn or shed, and it is desirable that this should have a southern slope with sandy soil. If, too, the sheep barn is located conveniently to the farmhouse or to other barns, much time will be saved in the performance of routine labor. This is important because through a part of the year the flock requires attention many times a day.

In planning a barn it is well to remember that shade and protection from heat are necessary for sheep, and that these can not always be obtained in pastures. The building that is cool in summer, therefore, will often give greater comfort to the animals than they can obtain out of doors. More important requisites, however, are dryness and light. Sheep can not possibly thrive in quarters that are damp and dark. In fact, the flock should be shut in only during storms. One square foot of window to each twenty square feet of floor space is considered necessary. The windows should be placed at a height to insure a good distribution of light and, in particular, of direct sunlight for the lambing pens during the period the ewes are lambing.

The ewes suffer greatly if confined in poorly ventilated pens. It is, therefore, necessary to provide some means of securing fresh air without creating drafts. Where the building is very large with numerous doors and windows, it is sometimes advisable to build one or two partitions from floor to ceiling. By opening muslin-screen windows on the side opposite to that from which the wind is blowing, fresh air can be admitted without causing drafts. In very cold sections or where lambs are to arrive in the winter months, specially arranged outlets of foul air and inlets of fresh air will be necessary.

Level and well-drained clay-surfaced floors are cheap and satisfactory, the only objection to them being that they do not exclude rats. For alleys and feed rooms concrete floors are required.

In the bulletin already mentioned is a discussion, accompanied by drawings, of the plan of a barn intended for the exclusive use of sheep, designed to meet the needs of those permanently engaged in sheep raising on a large scale. The working drawings and bills of materials for this and for the other buildings discussed in the bulletin may be obtained from the Office of Public Roads and Rural Engineering, Department of Agriculture, Washington, D. C. As the supply of the drawings for free distribution is limited, however, it is expected that only those will apply for them who are seriously contemplating building.

The building referred to has eight large pens, each capable of holding twenty ewes, allowing twelve square feet of floor space and fifteen inches of rack space for each ewe, and a small pen for the accommodation of four or five bucks. The partitions between the pens are formed by movable feed racks so arranged that the attendant can walk down the center to distribute feed. Storage space for fifty-five tons of loose hay or straw is provided in the mow, and for 1,100 bushels of grain in the storage room on the second floor. This is enough feed, with the exception of silage, it is said, to carry for a period of five months all the sheep that can be put in the barn. The silo should have a capacity of thirty tons.

The estimated cost of such a building with materials and labor obtainable at prices prevailing in May, 1916, should be approximately $2,400. These figures do not include feed racks, and the bulletin is careful to state that they should be considered only as a rough guide, because it is impossible to state exactly what the prices of material and labor will be in any locality. The amount of farm labor employed is also an important item in the total expense of construction.

Another set of drawings shows a combination horse, cattle and sheep barn designed to accommodate ten horses, five cows, and sixty-three sheep. Still another design calls for a simple type of closed sheep shed, which is especially adapted for farms in which the main barn has large feed capacity but not sufficient floor space foh the live stock. Allowing twelve square feet of floor space per animal, this shed will hold twenty-six sheep. This shed affords good protection for sheep under any conditions and may be used for winter lambing if the width is increased from sixteen to twenty feet. This will enable detachable lambing pens to be set up next the wall and still leave room for a feeding rack for the other ewes.

The bulletin also discusses in detail with illustrations a number of designs for grain troughs, feeding racks, fences, hurdles, lamb creeps, and other equipment. Growers are cautioned that fences that will exclude dogs should be used, although a less expensive fence would suffice for the sheep themselves.

Classified Advertising

Advertising "bargain counter." Thousands of people have surplus items of stock for sale—limited in amount or numbers hardly enough to justify extensive display advertising. Thousands of other people want to buy these same things. These intending buyers read the classified "ads"—looking for bargains. **Your advertisement here reaches over 60,000 farmers for 5 cents a word per week.** No "ad" taken for less than 60 cents. All "ads" set in uniform style, no display. Initials and numbers count as words. Address counted. **Terms, always cash with order.**

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

HELP WANTED.

WANTED—MAN AND WIFE TO TAKE charge of farm from July 10 until November 1. Address Joe Bell, McDonald, Kansas.

FARMERS, 18 OR OVER, WANTED (men-women) U. S. Government jobs. $90 month. Hundred vacancies. Common education sufficient. Write immediately for free list of positions. Franklin Institute, Dept. E-82, Rochester, N. Y.

CATTLE.

120 HEAD OF HIGH GRADE HOLSTEIN cows and heifers, priced for quick sale. H. F. McNutt, Oxford, Wisconsin.

FIVE HIGH-GRADE GUERNSEY HEIFers from tested dams with cow testing association records. J. W. Marley, Oswego, Kansas.

REGISTERED HOLSTEIN BULL READY for service. Two of his dams averaged 100 pounds milk in one day and 35 pounds butter in seven days officially. $100. Wisconsin Live Stock Association, Appleton, Wis.

FOR SALE — VERY CHOICE HIGHgrade Holstein calves, either sex, three to six weeks old, at $20 per head, crated for shipment. Or if you want dairy cattle of any age, I will buy them at a commission from the best herds in Southern Wisconsin. Albert M. Hanson, Whitewater, Wisconsin.

HIGHLY BRED HOLSTEIN CALVES, either sex, 15-16th pure, from heavy milkers, five to seven weeks old, beautifully marked. $23, crated and delivered to any station, express charges paid here. Send orders or write. Lake View Holstein Place, Whitewater, Wisconsin.

TRACTORS.

40-80 AVERY TRACTOR AND PLOW rig. Shidler Brothers, Lake City, Kansas.

HORSES AND MULES.

JACK FOR SALE OR TRADE — FIVE years old, gray, 14 hands jack measure; excellent breeder. Sacrifice price. Harry Bilson, Eureka, Kansas.

ALFALFA.

ALFALFA SEED, $8 PER BUSHEL. Good purity and germination but dark color. Better grades for more money. Write for free samples and prices. Henry Field, Shenandoah, Iowa.

BEST FARM PAPER IN KANSAS.

We note from the label on our paper that our subscription expired in February. We are of the opinion that we paid two dollars for three years' subscription when last renewed and supposed our subscription was paid in advance for some time, but we know that time flies so swiftly that we fail to realize how swiftly it is passing until it is past.

We have been a Kansas Farmer reader for about twenty years and think it the best farm paper in Kansas. I have had the pleasure of meeting Mr. Wheeler at Manhattan, Kingman, and other places, in farmers' institute work.

I am very much interested in the dairy business and have brought in many good pure-bred and high-grade Holsteins from Wisconsin's and New York's best herds to our state in the past year.

Inclosed please find check for two dollars for three years' subscription. Wishing the "Farmer" a glorious future, I am,

G. M. FRISBIE,
Kingman County.

PLEASE MENTION KANSAS FARMER WHEN WRITING TO ADVERTISERS

BUSINESS CHANCES

FREE FOR SIX MONTHS—MY SPECIAL offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to any one who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200. Write now and I'll send it six months free. H. L. Barber, 431,28 W. Jackson Boulevard, Chicago.

DOGS.

FOR SALE—COLLIE PUPPIES, HANDsome, useful. $7. Frank Barrington, Sedan, Kansas.

AIREDALES AND COLLIES—GREATEST of all pups. Grown dogs and brood matrons. Large instructive list, 5c. W. R. Watson, Box 128, Oakland, Iowa.

WANTED

WALNUT LOGS WANTED, FOURTEEN inches and up. Give number and size first letter; distance to R. R. W. A. Schwartz, Louisburg, Kansas.

THE STRAY LIST.

TAKEN UP—BY BARNEY McCABE, RESiding seven miles north of Iola, Allen County, Kansas, June 12, 1917, one bay mare, about twelve years old. The mare has a white face, black mane and tail, three white feet and some harness marks. Appraised at $40. Geo. Seymour, County Clerk, Allen County.

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.

There's not a blessed thing in this world worth having without sacrifice. The big people, the people that have the big things of life, are those that have paid or are prepared to pay the big price for them.—WILLIAM J. LOCKE.

Girls Volunteer for Service

"Can Co-eds can? Can Co-eds can? Can Co-eds can? Kansas Co-eds can! Can! CAN!! CAN!!!

With this slogan, the young women of our state educational institutions are going to farm homes to assist in the preserving of garden and orchard products. Not to be outdone by the young men, who are aiding in food production, the young women are offering their services to the Council of Defense to relieve the shortage of labor in farm kitchens during the summer months. Most of them are country girls and experienced cooks. Some are paying their own expenses while in college. If their help is not needed in their own homes, these girls are willing to work in other households, preferably in their own counties.

To Miss Glee Stallard, of Ottawa University, belongs the credit for starting this movement. It has now spread to the other colleges and universities of the state and hundreds of young women are volunteering for this work.

"These girls will take pride in helping their respective counties rank high in preserving food," explained Miss Stallard. "They do not aim to force their assistance on the farmer or his wife, but they are anxious to be of service in the biggest battle we can fight—the battle against starvation."

The dean of women at any Kansas college will be glad to put those desiring assistance in touch with capable young women.

Drying Peas

Mrs. J. B. D., Pottawatomie County, asks how to dry green peas, when they should be gathered, and how to prepare them for the table. As this inquiry was accompanied by postage, a reply was furnished by return mail. Thinking others of our readers may be interested in knowing how to dry garden peas and other vegetables, we give below the instructions furnished.

Select tender peas of the size you would choose for cooking fresh, or the very young and tender sugar peas, in which case the pod may be dried also. The four methods of drying described in the following paragraphs have all proven successful.

The simplest process consists of shelling the peas, spreading them on trays with covers of screen wire or mosquito netting for protection from flies and other insects, and drying in the sun. Once or twice a day they should be turned with the hand so that they will dry evenly. This is an inexpensive method and there is little danger of the product becoming overheated. Dust is likely to blow into the trays, however.

A good method if one has a dryer with which artificial heat can be used is to shell full-grown peas with non-edible pod, blanch by placing in boiling water from three to five minutes, remove water remaining on the peas by placing between two towels or by exposing to the sun and air for a short time, spread in single layer on trays and dry from three to three and one-half hours. Begin drying at 110 degrees F., raising the temperature very slowly in about one and one-half hours to 145 degrees F. Continue drying one and one-half or two hours at this temperature.

Another form of drying is to shell the peas, pass through a meat grinder, spread on trays, and dry either in the sun or over artificial heat. Whole peas take longer to dry, but when cooked they resemble fresh peas. The ground peas dry more quickly, but make a product which can be used successfully only in the preparation of soup or puree.

When drying the very young and tender sugar peas, use the pod also. Wash and cut in quarter-inch pieces. Blanch in boiling water six minutes. Remove surplus moisture. Dry from two to three hours, beginning with a temperature of 110 degrees F. and raising the temperature gradually to 145 degrees F. It is not necessary to use soda in blanching peas, as is sometimes done in blanching beans.

It will be found advisable to "condition" practically all dried vegetables and fruits by placing the material in boxes and pouring it from one box into another once a day for three or four days, so as to mix it thoroughly and give to the whole mass an even degree of moisture. If the material is found to be too moist, it should be returned to the drying trays for a short time.

In preparing the peas for the table, the water which has been dried out of them should be replaced by soaking in wataer several hours or over night, after which they may be cooked in the same ways as fresh peas.

The recipes given above were taken from Farmers' Bulletin 841, "Drying Fruits and Vegetables in the Home," which has just been published by the United States Department of Agriculture, Washington, D. C. This bulletin may be obtained free by addressing the Division of Publications, U. S. Department of Agriculture, Washington, D. C. It contains directions for drying the various fruits and vegetables that are adapted to drying, and recipes for their use. It also shows how to construct several forms of home-made dryers. The June 23 issue of KANSAS FARMER contained an article entitled "Dry Fruits and Vegetables," which gives plans prepared by our own Agricultural College for two types of home-made dryers.

Ways of Serving Lettuce

Two very good reasons why more lettuce should be eaten are that it acts as a conditioner to the system and it is usually plentiful and when it is used some other vegetable may be saved. By using lettuce, beet tops and other greens are left for canning, and through this practice we are helping to conserve food.

We believe more lettuce would be eaten if more care were given to its preparation for the table. There are many ways to serve it. One is to add to fresh bacon fryings a little vinegar, sugar, salt and pepper, and pouring this hot mixture over the lettuce leaves after having chopped them.

Lettuce served with boiled salad dressing is very appetizing. The dressing may be made as follows:

¾ cupful vinegar
¾ cupful water

Heat this in double boiler. Mix

½ cupful sugar
½ tablespoonful salt
1 tablespoonful mustard
2 heaping tablespoonfuls flour
2 eggs.

Add this to vinegar and water, stirring in slowly and cooking until thick. A small lump of butter may be added or the dressing may be thinned with thick cream. This dressing should be chilled and served at the table.

If the men folks do not eat lettuce ordinarily, try crisping it by letting it stand in cold water, chopping, and serving with one of these dressings. You may be surprised at the result and may have help in using the patch of lettuce that will be wasted otherwise.

Child Training

Children who receive daily training seldom need to be reminded of their "company manners." On the other hand, manners are seldom used on the special occasion if that is the only time they are required.

Within the past two weeks we have had opportunity to study both types at close range. We could not help pitying the child who had been allowed to disregard manners and the feelings of other people to the point of becoming selfish and willful and unattractive for these reasons, though she was pretty and bright. She is the idol of all other mem-

bers of the family and their love for her has blinded them to the unlovely qualities they are helping to develop in her and which will cause her unhappiness as she grows older and loses friends on account of them.

The other type was brought to our attention by two children of eight and six years, respectively, who recently spent the night in our home. No member of their family was with them and yet there was not an action or a word of which their mother might not have been proud. From the time they were placed in our custody their thought seemed to be of their hostess and of making her as little extra work as possible. Every little thing done for them was just right and appreciated by them and all the while they talked interestingly in their childish way, frequently expressing delight. It was very evident they were not thinking of "company manners" but were just acting naturally. It was also evident that back of these free, likable manners was the careful home training which alone could produce such results.

To be sure, there are different temperaments which must be dealt with differently, but they are all worth studying in order that the best possible training may be given. This early training is the foundation for the future man and woman and the more substantial the foundation is, the more durable will be the structure built upon it.

What a pity that we ever allow our desire to please the child to stand as a stumbling block to him later.

Dry bread can be made into French toast, or fried bread, with the addition of an egg and a little milk. This is a very good breakfast dish.

Pieces of soap which are too small to use should be placed in a small muslin sack about four by six inches. When the sack is almost full it should be tied securely at the top and the soap can then be used in dish water or bath water.

For a change, or when the family tires of fresh radishes, try slicing and boiling them. When tender pour off the water and add a white sauce. They resemble turnips in taste, and may be served in this way when too large to be palatable without cooking.

Can nothing that can be kept without canning. Dry such vegetables as corn, string beans, navy beans, mature lima beans, okra, etc.

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 Dressmaker," for only 2 cents; send 12 cents for pattern and book. Price of book if ordered without pattern, 5 cents. Address all orders for patterns or books to Kansas Farmer, Topeka, Kansas.

No. 8158—Child's Coat: Cut in sizes 2 to 12 years. In this roomy coat there is a wealth of style, inviting any little girl to see herself at her best for the call of outdoors. The fullness is gathered to a round yoke at front and held in at lowered waistline by a separate belt fitted with a pocket at each side; the strap cuff finish to the sleeve is a new style note. **No. 8139—Ladies' Shirtwaist:** Cut in sizes 36 to 42 inches bust measure. The frill of lace along the edge of the handsome collar and down the front helped this blouse to win a reputation as a genuine beauty. Its cut shows the V neck in first favor, the preferred front closing and the fullness bloused at the waistline. The back is plain with a stay belt at the waistline to hold the gathers. **No. 8177—Girls' Dress:** Cut in sizes 2, 4, 6 and 8 years. This model will interest any woman who has a child to dress. The frock is cut in one piece and, to give it style appeal, has front closing in diagonal effect. The fullness is becomingly belted with self material and the neck daintily finished with a square collar of contrasting goods. **No. 8175—Misses' Dress:** Cut in sizes 16, 18 and 20 years. A simple but lovely frock, made noticeable by a separate yoke belt of contrasting goods and a collar of unusual cut, to match; a trimming fold on the cuff is another detail with charm. The waist is cut very full, bloused at regulation waistline where a three-gore skirt with panel front is joined. **No. 8157—Ladies' Skirt:** Cut in sizes 24 to 34 inches waist measure. Just out—this five-gore skirt, for the woman who aims to be well dressed with a waist and skirt combined. The back is laid in plaits from the raised waistline that is so becoming; the front is plain with a tailor stitched seam down the center and trimmed with buttons to emphasize the straightness of line. **No. 8146—Ladies' Dress:** Cut in sizes 36 to 42 inches bust measure. With a generous measure of style, this model is cut with the panel and yoke in one piece and has the side sections laid in plaits—the plaits being held in place by a wide belt of self or separate material. The fullness of the sleeve is massed at the elbow and the buttoned cuff effect shows the newest sleeve finish.

We Need Your Help In a Critical Time

KANSAS FARMER READERS CAN BE OF GREAT HELP TO THEIR FAVORITE FARM PAPER NOW

KANSAS FARMER comes to you through the mails. It is distributed under the jurisdiction of the Post Office Department, which has made some new rulings which the publishers of KANSAS FARMER must observe in respect to the procuring and continuation of subscriptions. During these critical times the rulings may be changed at any time, at the option of the Post Office Department.

The Postmaster General has made a ruling which makes it necessary that certain classes of subscriptions may not be carried after expiration. It has always been customary and permissable for the publisher to carry, at his option, subscriptions for a short time after they expire, in order that the subscriber might have an opportunity to renew his subscription and thus prevent his missing any copies of the publication.

The new rule, however, requires that this practice must be stopped.

We feel that you want KANSAS FARMER, because it is strictly a Kansas paper and is striving to help you in your work, and you certainly do not want to miss the good things that this old paper carries each week for the betterment of farm conditions. We do not want to discontinue your paper. We are very anxious to retain every one of our subscribers. In order to do so, we must urge that you send us your renewal subscription at once.

Here are four distinct offers which we submit to you. We will greatly appreciate your acceptance of any of them:

1. May we immediately have your renewal for one year at $1.00?

2. If you send us $2.00, we will renew your subscription for three years—a saving of $1.00.

3. If you will send us the subscription of two of your neighbors for one year for $1.00 each—$2.00 in all—we will renew your own subscription one year without additional charge in appreciation of this service rendered.

4. If you will send us the subscriptions of four of your neighbors at $1.00 each—$4.00 in all—we will extend your subscription for a period of three years without additional charge.

We have provided a special blank below to be used in sending in your renewal subscription or the subscriptions of your neighbors. May we again urge you to co-operate with us by accepting one of the offers provided?

Special Club Subscription Blank

KANSAS FARMER, Topeka, Kansas.

I enclose $.....for.....subscriptions to KANSAS FARMER for one year each. For this service I am to receive KANSAS FARMER for {1 year / 3 years} without additional charge.

Name .....

Address .....

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Name .....

Address .....

Name .....

Address .....

Special Renewal Blank

(To be used in case Club Offer is not accepted.)

KANSAS FARMER, Topeka, Kansas.

Enclosed please find {$1.00 / $2.00} to pay for my renewal to KANSAS FARMER for {1 year / 3 years} as per offer above.

Name .....

Post Office .....

R. F. D.....Box.....State.....

We should be pleased to have a copy of Kansas Farmer for June 23 for our files in this office. We consider your paper a great help to our boys and girls engaged in club work.
GEORGE E. FARRELL,
Assistant Boys' and Girls' Club Work, U. S. Department of Agriculture, Washington, D. C.

Keep Pullets For Winter Eggs

THE prevailing high prices of grains coupled with the fact that spring chickens are bringing very attractive prices, will tend to put many thousand frys on the market within the next few weeks. Very few if any of the poultry raisers of Kansas are in a position to say whether this is a wise move or not. Before any of the pullets are disposed of a person should be in a position to state what they have cost and what the reasonable expectations may be for their profitableness the coming winter.

It is too early in the season to state positively what it will cost to mature a pullet. By taking the figures of former years and comparing grain prices with the same grains this year, we can approximate very closely. Under ordinary conditions where the chickens have ample room for range and are given good care, the cost is low enough to justify the breeder in keeping his pullets even this year. Recent published experiments from one of the experiment stations show that it takes four eggs set to raise one pullet. Basing our calculations on this statement and allowing two cents each for the eggs set, which has been a little under the average price for this year, we have the pullet costing eight cents as soon as she is out of the incubator. With grain at the prices that prevail in an ordinary year, it costs about fourteen cents to feed a chick till it is twelve weeks old, at which time it will weigh around one and one-fourth pounds. This is for Leghorns. These figures are all based on this breed of chickens. Taking the same authority as a basis, it costs fifty-four cents to raise a Leghorn pullet to the laying age. The cockerels in this case were all marketed as soon as they weighed a little over one pound and the proceeds from the sale applied on the cost of maturing the pullet. It should not cost the average farmer as much to raise the pullet, because the living of the farm-raised chicken is gathered from the waste material about the place.

The price of eggs this winter will certainly be such as to justify all raisers of poultry in keeping the pullets if they can be raised as cheaply as this. As grain is nearly twice the usual price, it is to be supposed that the cost of maturing a pullet will be nearly or quite twice that given here. If other breeds than the Leghorns are raised, the cost will be about one-fourth more, but they will weigh considerably more at the age of twelve weeks.

Department of Agriculture Bulletins

The following publications of the U. S. Department of Agriculture relating to poultry raising and egg production are available for free distribution:

The Guinea Fowl and Its Uses as Food (Farmers' Bulletin 234).

Poultry Management (Farmers' Bulletin 287).

Pheasant Raising (Farmers' Bulletin 390).

Marketing Eggs Through the Creamery (Farmers' Bulletin 445).

Capons and Caponizing (Farmers' Bulletin 452).

Hints to Poultry Raisers (Farmers Bulletin 528).

Important Poultry Diseases (Farmers' Bulletin 530).

Organization of Boys' and Girls' Poultry Clubs (Farmers' Bulletin 562).

Poultry House Construction (Farmers' Bulletin 574).

Natural and Artificial Incubation of Hens' Eggs (Farmers' Bulletin 585).

Shipping Eggs by Parcel Post (Farmers' Bulletin 594).

Natural and Artificial Brooding of Chickens (Farmers' Bulletin 624).

A Simple Trap Nest for Poultry (Farmers' Bulletin 682).

The Community Egg Circle (Farmers' Bulletin 656).

Squab Raising (Farmers' Bulletin 684).

Duck Raising (Farmers' Bulletin 697).

Goose Raising (Farmers' Bulletin 767).

Turkey Raising (Farmers' Bulletin 791).

How to Kill and Bleed Poultry (Bureau of Chemistry Circular 61, revised).

The following bulletins are for sale by the Superintendent of Documents, Government Printing Office, Washington:

The Commercial Fattening of Poultry (Department Bulletin 21), price 10 cents.

Lessons on Poultry for Rural Schools (Department Bulletin 464), price 10 cents.

The Food Value and Uses of Poultry (Department Bulletin 467), price 5 cents.

Eggs and Their Value as Food (Department Bulletin 471), price 5 cents.

Fattening Poultry (Bureau of Animal Industry Bulletin 140), price 10 cents.

The Improvement of the Farm Egg (Bureau of Animal Industry Bulletin 141), price 10 cents.

The Care of the Farm Egg (Bureau of Animal Industry Bulletin 160), price 15 cents.

A System of Poultry Accounting (Bureau of Animal Industry Circular 176), price 5 cents.

Last year poultry and eggs were so high that many cold storage plants chose to wait for a slump, but the slump did not come. The result was a shortage of nearly 25 per cent of storage eggs held for the 1916-17 season. This year looks still more promising. Both patriotism and profit should stimulate production. True, grain is high priced. But eggs have increased in price accordingly, and there is every prospect that it will continue to be highly profitable to produce them.

There is no form of life that seems to enjoy hot weather as does the little red mite. The hotter the weather, the more rapidly do they multiply. The hot days of July and August are when we should keep the closest watch for them. Nothing is better than kerosene to keep down this pest. If the roosts and nests are thoroughly sprayed with this once each week or ten days, they will do no harm in the poultry house.

This is the time of year when the young pullet is retarded or even stunted in growth by being kept in too close quarters at night. The chicks grow, but the coops do not, and before we know it they are too large for their quarters. Better go out and see how they look tonight when they go to roost.

Of course there are farms where there is lots of grain scattered about the yards where fowls can pick up a decent living, but the number of them is small compared to the places where the hens cannot live without being supplied with a daily ration.

This is the season of the year when the lice and mites reap their harvest of blood drawn from the bodies of the hens. All this blood is manufactured from the grain we feed. A little attention now will cut down the price of maintenance of your flock of poultry.

Prepare for Wheat Early

(Continued from Page Five)

While these figures indicate that the acreage of wheat exceeds last year's by 2,235,000 acres and barley and oats by 1,277,000 acres, a large percentage of the increase is in the western counties where wheat failed and where the crops are now suffering for rain and where recent reports—telegrams and letters and personal visits by members of the committee—indicate that much of the barley and oats have already completely perished and that the yields of corn and sorghums, but corn in particular, are going to be substantially reduced if not entirely lost unless abundant rains fall within a few days. Although growing conditions are unfavorable in the western half of the state for crops in general, they are unusually favorable in the eastern half, where oats and wheat and corn never looked more promising than they do today. In this portion wheat and oats are made and now being harvested, and corn is growing fast, the fields being well cultivated and clean.

EDGEWOOD FARM
REGISTERED ANGUS BULLS. HAVE FIFTEEN STRONG YEARLING BULLS FOR SALE
D. J. White, Clements, Kansas

POLAND CHINAS

POLAND CHINAS.

Faulkner's Famous Spotted Polands
The world's greatest pork hog are raised exclusively on
HIGHVIEW BREEDING FARMS
The largest registered herd of old, original, big-boned, spotted Polands on EARTH.
Spring Boars Now Ready to Ship, Pairs and Trios No Kin.
Spring Pigs Now Ready to Ship, Pairs and Trios No Kin.
H. L. FAULKNER - BOX D - JAMESPORT, MISSOURI

OLD ORIGINAL SPOTTED POLANDS
Choice March and April pigs of both sexes.
H. A. MATTOX, Route 2, Burlington, Kan.

Langford's Spotted Polands. Gilts bred for fall farrow. Future herd boars. Satisfaction guaranteed. T. T. LANGFORD & SONS, Jamesport, Missouri

POLAND CHINA HOGS 150 HEAD IN HERD
Breeding stock for sale. Immune. Satisfaction guaranteed. Come and see me.
V. O. JOHNSON - AULNE, KANSAS

TOWNVIEW HERD BOARS
Ten big stretchy fellows farrowed in June. Every one a good one. Two choice fall yearlings. I ship my boars and gilts any place on approval. They make good. Prices are right. CHAS. B. GREENE, Peabody, Kan.

POLAND CHINA BOARS
Twenty-five choice spring boar pigs sired by Caldwell's Big Bob, Big Hadley Jr., King Price Wonder, Columbus Defender, Big Bob Wonder and Fessey's Tim. Some fine prospects and priced reasonable. Immune.
BERT E. HODSON, ASHLAND, KANSAS.

OLD ORIGINAL SPOTTED POLANDS
Stock of all ages, sired by seven of the very best boars of the East and West. Priced right. Write your wants to the
CEDAR ROW STOCK FARM
A. S. Alexander, Prop. Burlington, Kansas

Henry's Big-Type Polands
Spring pigs, either sex. June delivery. Sired by Mammoth Orange, King Price Wonder, Big Wonder. Choice of lot, $35. Trio, $100. Others, $25. First check, first choice.
JOHN D. HENRY, LECOMPTON, KANSAS

DUROC JERSEYS.

JONES SELLS ON APPROVAL
February, March and April Durocs, pairs and trios and herds unrelated. First class pigs at reasonable prices.
W. W. JONES, CLAY CENTER, KANSAS

LONE TREE DUROC FARM
Herd Boar Graduate Prince by Graduate Col. Sows, Ohio Chief, Tatarrax, Model Top and Good Enough Again King blood lines. Spring pigs, two for $35.00, three for $45.00; not related.
GEO. J. BURKE, LITTLE RIVER, KANSAS

IMMUNE DUROC-JERSEYS
Forty-five head spring boars and gilts, March and April farrow, by Gano Pride 2d by Gano Pride, out of a Graduate Col. sow. Herd sows best of breeding. Write for prices. T. F. DANNER, Winfield, Kansas.

IMMUNED DUROCS
With size and bone. Bred sows and males a specialty. 150 early pigs; pairs and trios, no kin. All immuned. Satisfaction guaranteed. C. G. Ditmars & Co., Turney, Mo.

GALLOWAY CATTLE.

GALLOWAY BULLS
SIXTY yearling and two-year-old bulls, strong and rugged; farmer bulls, have been range-grown. Will price a few cows and heifers.
B. B. FRIZELL, Frizell, Pawnee Co., Kansas

AUCTIONEERS.

Jas. T. McCulloch Live Stock Auctioneer. I make sales anywhere.
Write for date. CLAY CENTER, KANSAS

LESTER B. HAMILTON
Live Stock Auctioneer
Write for terms and date. Clarksdale, Mo.

BERKSHIRE HOGS.

KING'S BERKSHIRES — Twenty good Berkshire fall boars. One good yearling boar. E. D. KING, Burlington, Kansas.

HAMPSHIRE HOGS

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

GUERNSEY CATTLE.

Choice Guernsey Calves—Ten heifers, 15-16ths pure, beautifully marked, from heavy-producing dams. $20 each. Satisfaction guaranteed. L. Terwilliger, Wauwatosa, Wis.

GUERNSEY BULLS.
Buy a grandson of Imp. May Royal, whose dams are granddaughters of Imp. Masher Sequel. One to seven months old. ADAMS FARM, Gashland, Mo., 12 miles from K. C.

FARM AND HERD NEWS NOTES

G. C. Wheeler, Live Stock Editor
W. J. Cody, Manager Stock Advertising. O. W. Devine, Representative

Address All Communications to Kansas Farmer, and Not to Individuals

Personal mail may have to be held for several days, or be delayed in forwarding, and Kansas Farmer cannot assume any responsibility for mistakes occurring thereby

CLAIM SALE DATES.

Holsteins.
Oct. 16 — The Nebraska Holstein Breeders' Consignment Sales Co., Omaha, Neb.; Dwight Williams, 103 Bee Bldg., Omaha.

Poland Chinas.
Aug. 15—H. L. Faulkner, Jamesport, Mo.
Oct. 4—Dr. J. H. Lomax, St. Joseph, Mo. Sale at farm near Leona, Kansas.
Oct. 5—U. S. Byrne, Saxton, Mo.
Oct. 16—H. B. Walter & Son, Effingham, Kansas.
Oct. 17—Walter B. Brown, Perry, Kansas.
Oct. 24—Fred G. Laptad, Lawrence, Kansas.

Red Polled Cattle.
Sept. 4—Milton Pennock, Delphos, Kansas.

Durocs.
Oct. 24—Fred G. Laptad, Lawrence, Kansas.

Hampshire Hogs.
Oct. 12—Kansas Hampshire Swine Breeders' Association and Halcyon Hampshire Pig Club sale at Valley Falls, Kansas. George W. Ela, secretary and manager.

O. I. C. Hogs.
Sept. 4—Milton Pennock, Delphos, Kansas.

Robert H. Hazlett, of El Dorado, Kansas, is fitting a string of his Herefords that will be out at the leading fairs this fall. Mr. Hazlett takes great pride in showing cattle of his own breeding. There is now in his herd eighty head of choice young bulls that are herd prospects and 125 mature herd cows, many of them tracing to Beau Brummel 10th. The herd bulls now in service are the grand champion Bocaldo 6th, assisted by Caldo 2d, Publican 4th, and Beau Baltimore.

C. W. Taylor, of Pearl, Kansas, is making a great success with his herd of Scotch and Scotch-topped Shorthorns. The herd now numbers over 100, consisting of seventy-five cows and twenty-five heifers. A number of extra well bred stock bulls are used in the herd, including the pure Scotch bull, Village Heir by Imported Villager. His dam was Rosetta Grassland out of Imported Rosetta 12th. Village Heir is one of those short-legged low-down well-proportioned bulls of the right sort. A feature of the herd at this time is the choice lot of yearling bulls, both Scotch and Scotch-topped.

Ross & Vincent, of Sterling, Kansas, are claiming November 6 for a fall sale of their big-type Poland Chinas. They have raised ninety-five head of extra good spring pigs mostly sired by Mammoth King by Cowle's Orange by Mammoth Orange. Mr. Vincent, on the farm, has done a good job feeding his pigs this spring and they promise to be one of the good offerings of Poland China boars and gilts that will be sold this fall.

John D. Ziller, Hiawatha, Kansas, is claiming October 25 for a fall sale of Poland Chinas. On this date Mr. Ziller will offer fifty head of fall and spring boars. The herd is headed by Jumbo Wonder 2d by Jumbo Model 3d by Smooth Black Bone. Mr. Ziller has made a great success of Poland Chinas and seed corn for thirty years on the same farm.

L. W. Terwilliger, of Fernwood Farm, Wauwatosa, Wisconsin, reports a heavy demand for young Holsteins. During the past few weeks Fernwood Farm has shipped a large number of choice Holstein calves to Kansas and the Southwest. A feature of Fernwood herd at this time is the choice lot of pure-bred and high-grade youngsters.

E. S. Engle & Son, Abilene, Kansas, owners of one of the great producing Holstein herds, report their herd doing fine and in the near future they will be able to report some splendid semi-official yearly records. This is one of the consistent producing herds now assembled.

N. L. Duchesne, Great Bend, Kansas, owner of one of the largest herds of pure-bred Jersey cattle in the West, reports his herd making a good record this year. This is one of the richly-bred herds and a feature at this time is the very fine lot of young cows of record breeding.

William D. Brigham, manager of Addams Farm, Gashland, Missouri, the home of one of Missouri's good Guernsey herds, reports the herd making a good record again this year. This is one of the heavy producing herds and is headed by Itchen Royal of Overland 29217. His sire is Imp. May Royal 22242; dam; Imp. Daisy of the Hall 35212, A. R. 3473, 581.18 pounds butterfat, average for year 5.11 per cent. Several of the cows are sired by Goodwill's Raymond of the Preel 14107, thereby being granddaughters of Imp. Masher Sequel 1266. One cow is sired by Glenwood Lad of Westlawn 14845 and another is sired by Ambler 2d 11352.

HOLSTEIN CATTLE.

HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm — F. W. ROBISON, Cashier Towanda State Bank
HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS
BREEDERS OF PURE-BRED HOLSTEINS
We offer special attractions in choice young bulls, ready for service, bot. from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.
IT WILL PAY YOU TO SEE OUR OFFERING
of high grade young cows and heifers, all springers, in calf to pure-bred sires, large developed females, good udders, nicely marked and the right dairy type at prices that challenge comparison for Holsteins. A visit to our farm will convince you. Keep us in mind before purchasing. Wire, write or phone us.
GIROD & ROBISON - - - - TOWANDA, KANSAS

HOLSTEIN FRIESIANS

E. S. Engle & Son, Abilene, Kansas, just want you to know that we have been breeding, developing and milking high-producing Holsteins since 1909. It is a very busy time now to talk cows, but a little later we shall tell you about some nice semi-official yearly records that are being made at our farm. Members Dickinson County Testing Association since 1913.
E. S. ENGLE & SON - - - - ABILENE, KANSAS

MAURER'S HOLSTEIN FARM
Has just received another choice lot of young pure-bred cows and springing heifers. Also some extra good registered yearling heifers and a fine lot of registered calves of both sexes. Write for pedigrees and prices, or call.
T. R. MAURER & CO - - - - EMPORIA, KANSAS

FIFTEEN HEAD HOLSTEIN COWS AND HEIFERS
Three in milk, one due in a few days, balance yearling heifers. All popular breeding and some A. R. O. cows. Three high grades due this fall, bred to pure-bred bull.
B. P. SMITH, Miltonvale, Kansas

PECK'S HOLSTEINS We have a choice lot of extra large high-grade Holsteins, including fresh cows, heavy springing cows and heifers, and young calves. Registered bulls. Come and see our herd. We meet you at train and guarantee satisfaction.

M. R. PECK & SON, SALINA, KANSAS

HOLSTEINS AND GUERNSEYS
High grade cows and heifers, carloads or less. Calves crated and shipped anywhere, price $20.
F. W. WALMER
Way Side Stock Farm - Whitewater, Wis.

GOLDEN BELT HOLSTEIN HERD
Herd headed by Sir Korndyke Bess Hello No. 165946, the long distance sire. His dam, grand dam and dam's two sisters average better than 1,200 pounds butter in one year. Young bulls of serviceable age for sale.
W. B. BENTLEY, MANHATTAN, KANSAS

Segrist & Stephenson, Holton, Kan. Breeders exclusively of pure-bred prize-winning record-breaking Holsteins. Correspondence solicited.

GREENSWARD HOLSTEINS.
Choice bull calves, heifers, cows. Registered and best breeding. Herd tuberculin tested. We are breeders, not dealers.
MAX J. KENNEDY, FREDONIA, KANSAS

MOTT'S HOLSTEINS
Seventy-five head of high-grade and registered coming 2-year-old Holstein-Friesian heifers for sale, bred to a registered bull. Six choice pure-bred Holstein bulls old enough for service. Come to Herington or send us mail order. We guarantee to please you.
W. H. MOTT - - HERINGTON, KANSAS

Butter Bred Holsteins
Buy your next bull calf from a herd that won the butter test over all breeds.
J. P. MAST - - SCRANTON, KANSAS

HOLSTEIN CALVES
We offer for sale choice, beautifully-marked heifer or male calves, 15-16ths pure-bred, and all from extra large heavy-milking dams, as follows, crated f.o.b. cars: One to two weeks old, $15 each; two to three weeks old, $17 each; five to six weeks old, $20 each. First check takes them. Write
W. C. KENYON & SONS, ELGIN, ILLINOIS

Braeburn Holsteins Bull Calves by Walker Copia Champion, whose dam and sire's dam each held world's records in their day.
H. B. COWLES, 608 Kan. Av., Topeka, Kan.

Holstein and Guernsey Calves—Both sexes, 8 weeks old, nicely marked, fawn and white, black and white, mostly 15-16ths. $25 each, crated for shipment. Satisfaction guaranteed.
Edgewood Farms - Whitewater, Wisconsin

HIGH GRADE HOLSTEIN CALVES
Five to six weeks old, nearly pure, well marked, $20, express paid.
COLD SPRINGS FARM, Whitewater, Wis.

HOLSTEINS
Registered and high grades, cows and heifers. The milky strain, service bulls, carloads or less. High grade heifer calves, $18 each, crated. Write me. I have what you want.
RAY C. JUDD - ST. CHARLES, ILL.

High Grade Holstein Calves 12 heifers 15-16 pure bred, 4 to 6 weeks old, beautifully marked, $20 each. Safe delivery and satisfaction guaranteed.
FERNWOOD FARMS, WAUWATOSA, WISCONSIN

HOLSTEIN CALVES
Very high grade heifer calves, five weeks old, nicely marked, $25 each delivered to your station. We can supply you with registered or high grade Holsteins, any age or number, at reasonable prices. Clover Valley Holstein Farm, Whitewater, Wisconsin.

Nicely marked high-grade Holstein calves, price reasonable. O. Canuteson, Route 4, Delavan, Wisconsin.

Breeders' Directory

RED POLLED CATTLE.
Mahlon Groenmiller, Pomona, Kansas.
JERSEY CATTLE.
J. B. Porter & Son, Mayetta, Kan.
DORSET HORN SHEEP
H. C. LaTourette, Route 2, Oberlin, Kan.

HORSES AND MULES.

PERCHERONS, BELGIANS, SHIRES.
Ten stallions ready for heavy stand; also yearlings and twos. Young fillies, also mares with colt by side and bred again. All registered. One hundred individuals of first rank for sale.
FRED CHANDLER, R. 7, Charlton, Iowa
Just above Kansas City

Barn Full of Percheron Stallions and Mares. Twenty-five mature and aged jacks. Priced to sell. AL. E. SMITH, Lawrence, Kansas.

SHORTHORN CATTLE.

Sycamore Springs Shorthorns
Master of Dale by the great Avondale heads herd. A few young Scotch bulls and bred heifers for sale.
H. M. HILL - LAFONTAINE, KANSAS

Sunflower Herd of Shorthorns
A few good cows and heifers for sale, also choice bull calves. Come and see my herd.
A. L. HARRIS - OSAGE CITY, KANSAS

ALYSDALE HERD OF SCOTCH SHORTHORNS
Prince Valentine 4th and Clipper Brawith in service. Orange Blossoms, Butterflys, Queen of Beautys and Violets. Choice young stock for sale.
H. H. HOLMES, Route 28, Topeka, Kansas

Plevna, Kansas, July 3, 1917.
Kansas Farmer, Topeka, Kansas.
Dear Sirs: Enclosed find check to balance my advertising account. We are well pleased with the trade our ad in Kansas Farmer brought us. Was rushed with orders from February 10 up to June 4 and sold over 4,000 eggs this season. Have raised nothing but Silver Wyandottes for seven years, and have been with you for several years. Have shipped to thirteen different states ranging from California to Tennessee and from El Paso, Texas, to Minnesota. Expect to be with you again in the future.
Yours very respectfully,
MRS. EDWIN SHUFF.

When writing to KANSAS FARMER live stock advertisers, please mention this paper.

CHESTER WHITE HOGS

FOR SALE
Spring Pigs in Pairs and Trios Not related, from my undefeated show herd 1916. Ship at weaning. Send for prices and show record. COLEMAN & CRUM, Danville, Kansas.

O. I. C. SPRING PIGS, BOTH SEXES.
Bred gilts.
HARRY W. HAYNES, GRANTVILLE, KAN.

Registered Chester White and Duroc Jersey Hogs—Half-ton kind.
L. M. FISH - Bolivar, Missouri

POLLED DURHAM CATTLE.

FOR SALE—Two red and white bull calves, 10 months old, sired by Chief, a son of True Sultan. Priced to sell.
D. C. VAN NICE - RICHLAND, KANSAS
(On Mo. Pac. Ry., 17 miles S. E. of Topeka)

A Raw Deal for Farmers

Read Carefully THEN Act Today

THE WAR REVENUE BILL recently passed by the House of Representatives increases postage rates on farm papers and other publications in such a way that it costs more to mail them to farmers, who mostly live at a considerable distance from the big publishing centers; than to city people, who live near those centers.

The House refused even to give a hearing to publishers, in spite of repeated warning that the proposed action would discriminate especially against people living in rural districts.

Congress resounds with frenzied appeals to the farmer to raise more crops and help win the war. Isn't it about time Congress gave the farmer some consideration instead of trying to pass legislation of this kind that puts an unnecessary and unfair tax upon subscribers for the papers they read?

WHAT THE PUBLISHERS ARE UP AGAINST

Sworn statements were recently presented to Senate Finance Committee from fifty-five of the biggest farm publications. They showed that their combined profits in 1916 were an average of only a little over $10,000 apiece. They stated that for 1917 they must pay for paper nearly double their 1916 profits, and that labor, ink and other items had gone up in proportion. This means that publishers are going to run behind even if postage rates are left as now. If those rates are increased, it means that many publications must suspend, and that the few that are able to survive must try to get a higher subscription price. Subscribers in most cases are now paying all they can afford, and it is unfair to ask them to pay more, particularly when the U. S. Government does not need to increase second class postage rates in order to get the necessary War Revenue.

Let War Revenue be obtained by taxes on profits!

Let those who are making the biggest profits pay the biggest taxes!

Under that plan those publishers and other business men who are making profits will have to pay, as they should do and are willing to do, while those who already are struggling hard to keep going do not have put upon them a burden that they cannot stand.

Publishers cannot pay any increase in second class postage, and subscribers ought not to be asked to pay more. Therefore,

Write a "red hot" letter to each of the two Senators from your State and to your Congressman and ask them to work and vote against any increase in second class postage rates.

Don't Delay a Minute! Do It NOW!

Address your Senators at The Senate, Washington, D. C.; your Congressman, at The House, Washington, D. C.

CHAS. C. YOUNGGREEN, General Manager **THE KANSAS FARMER COMPANY**