

KANSAS FARMER

For the improvement  of the Farm and Home

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IDEALS OF THE GRANGE

Address in Memorial Hall, Topeka, by National Grange Master Oliver Wilson

IT IS difficult for a Grange speaker in going over this great country of ours under existing conditions to know just what line of thought to present. To me, today is a wonderful time in which to live. A great responsibility rests upon the American farmer, upon the American citizen, and a tremendous responsibility upon this order. Although it is a responsible thing to be simply an American citizen, those who join the Grange take on a greater responsibility, for the organized farmers must settle the great questions of state and nation. In times of stress the farmer has never been found wanting. The person who speaks of farmers not being patriotic does not know history. Commencing with the earliest days of our Revolution, you will find that farmers have been furnishing about 75 per cent of the soldiers that have fought the battles of this country, and if necessary they will do as well in the present war.

To my mind patriotism does not mean simply supporting our country in its warfare. Some of the greatest battles have been won in the quiet paths of everyday citizenship. You will not find a class of people in this country who have a greater love for our institutions than the farmer. I do not mean to say that all is good in the farmer, but farmers are just as good and has as high ideals as any other class of people.

President Wilson has stated that the success of this country in the war will depend on the American farmer. It is not the country which can shed the most blood, but the one that can produce the most food that will win. Proper food and clothing are absolute necessities for our soldiers.

I sometimes wonder if we have done all we could to impress our children with patriotism. Everywhere I have been on this trip I have been impressed with the number of flags displayed. I do not object to this means of exhibiting patriotism. Our flag is a beautiful one and its display is suitable for any occasion, whether joyous or sad. A question has arisen in my mind, however, as to whether we, as parents, speakers, teachers, and preachers, have taken pains to instill into our children the right kind of patriotism. Have we taught them that our flag means honor, purity, comfort, and happiness, and does not stand alone for bloodshed and carnage?

The Grange has always been a peace organization. It has done everything possible to preserve peace in the present crisis, but now it seems that force must be used in establishing the rights of democracy. It is necessary that the farmers of America do all they can to provide food in order that this nation shall live. I do not think it will be necessary for the producers of food to stint themselves in the common necessities of life, but I do think it is necessary and a patriotic duty to practice real economy. We are hearing a great deal about food conservation, much of it coming from those who know about as much about farming as I know of present conditions in Europe. Most of these food conservationists start in by saying that the farmer must work a few hours more each day in order to feed the world. We

sometimes wonder if they have some means of making a day more than twenty-four hours long. President Wilson intended to have a practical farmer on the Council of Defense, but if there is one there I do not know who he is. I have not learned why the farmer was ignored on the Food Conservation Commission.

While the farmers of the United States are beginning to organize, only a very small per cent have as yet come into the organizations. For this reason those in authority have not really heard the insistent demands of agriculture which would only reach them through the efforts of a big organization. We have only ourselves to blame if our demands have not been heard. President Wilson is not the only president who has made similar mistakes. Not many years ago a president of the United States appointed a commission to go to Europe to study rural credits, and not a farmer was named. Another president appointed a commission to study rural life conditions, and not a farmer was named on this commission. Who knows most about the conditions of agriculture—the man who sits at a desk and studies about it, or the man who sees it in its everyday clothes? We simply have not demanded our rights in an organized way as others have done.

The Grange has stood for years for equity and justice. Only recently have people of the towns and cities begun to realize the true objects of the Grange organization. We have never opposed any other organization or industry. We have always maintained that the farmers' interests are the same as the interests of others, and their rights of equal importance. We stand before the people today as an organization that is bound together for the support of the great institutions of our country.

In matters of progressive legislation Kansas has ever been to the front. All over this nation she stands as the avowed enemy of the liquor traffic. The Grange as an organization is absolutely

opposed to the idea of straining every nerve to increase our production of grain only to have millions of bushels of it made into liquor each year. People of Kansas have been free from this curse so long that they do not fully appreciate the significance of this statement. Some of your neighbors have not been so progressive. In Illinois, my home state, much liquor is manufactured, and we are not proud of this fact. With the help of good people everywhere, the time is near at hand when the manufacture of food into distilled liquors will be absolutely prohibited. Even now such a measure is in the Senate and the indications are that it will become a law. I wonder if it would not be another conservation measure for the Grange to undertake after we get whisky banished and food converted to legitimate use to go a step farther and use the land upon which tobacco is raised for food production. If it is true, as Herbert Hoover, the Secretary of Agriculture, and others say, that the world is almost facing a famine, is it reason, is it good common sense to use land that might be used for growing good wheat and corn for the culture of tobacco?

I suspect that even here in Kansas there are some unjust burdens on the farmers of the state, even though Kansas is a little more progressive along some lines than her neighbors. I suspect that farmers are paying more than any other class for their share of public benefits. We believe in equal justice and equal representation, but in my home state there are some things in which the farmer is not equally represented, although he is taxed higher than any other class for their maintenance. We have a great penitentiary. The warden of this institution says that if he has need of a tailor or someone to look after the medical care of the prisoners, or even their spiritual welfare, he finds such a man among the inmates. If he desires someone to give legal or financial advice, he finds them also plentiful. We have a bankers' row in

our penitentiary which is always full with several on the waiting list. But if the warden needs a man to look after the farm or care for live stock, he has to go out and hire a free man. He does not find men on the farms inside the walls. We are taxed to keep these men who are not from the farm, and the same is true of our poorhouses. I never knew a farmer to quit farming to go to the poorhouse, yet every year we are taxed heavily to support people brought there from the cities as a result of the city environment. If the farmer of Kansas is paying more than his just share to support any state institution or expense, the Grange should get busy.

The Grange has the reputation of always being on the right side on great public questions. I do not know how many congressmen have told me that they have always found the Grange right. Only recently I had occasion to present a matter to a prominent senator and his reply was: "I have not given this question as yet any particular thought, but in all probability I will vote for it, because the Grange is for it and the Grange has always been right." Is it worth while that we hold this organization above partisanship, above sectarianism? Is it worth while that when we come before our legislative bodies they feel that the Grange is always right, and that it should get what it goes after? Let us not forget the clause in one of the early declarations of this order, written many years ago, that we are working for the best condition of all. Is it not worth our best efforts and best work?

If I have any special message to leave, it is that of individual responsibility in your home, in your community, and in your Grange. Realize that you cannot shift that responsibility to someone else. There is a little niche you can fill in that home or community and in that Grange better than anyone else can fill it. The little personality that you carry to and from that Grange hall is worth much to agriculture. The member who comes into the Grange merely for what he can get out of it is hardly worth having. We must ask, "How can I do my bit?" There are few organizations out of which you can get more than you put in.

The greatest question before the American farmer today is that of economical transportation and distribution. If the Government will shorten the road by one-half between the producer and the consumer, I will guarantee that the American farmer will produce all the food required. We are now receiving on an average only thirty-five cents of the consumer's dollar. Sixty-five cents is added before it finally reaches him. There is something wrong somewhere. The greatest cost should be in the production, and when this end receives but one-third there is surely a great waste somewhere along the line. We are trying to solve this great problem of distribution so that the farmer may receive a reasonable recompense for his toil and for the money invested. I want to say a word in behalf of the agricultural agents. I have met many of them

(Continued on Page Nine)



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FARM POWER

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

WOMEN are generally in charge of the consumption of that which is produced. In the Iowa Agriculturist, Gladys Gallup argues that farm women must have more modern improvements to help them with their work. She points out that in times past the farm man worked too hard and the farm woman worked too hard, but the use of power and machinery has lightened up the work of the man, while the work of the woman has not been greatly lessened. She needs the water brought into the house, and she needs electric lights, electric power, and other labor-saving equipment. She should not be required to do double the work of the town woman and she should not be required to do more in proportion than the farm man.

According to the above mentioned writer, about half of the women of Iowa are in farm homes and half are in town homes, but the work attendant upon consumption in the farm home is perhaps double the work that is attendant upon consumption in the town home. The reason for this difference is that the town man furnishes his town home with a much more finished product than the farm man furnishes his home.

The man on the farm furnishes his home with flour for the woman to bake into bread, while the man in town furnishes the home with bread that is baked. The man on the farm furnishes the woman with the cows, or at least with the milk for making butter, while the man in town furnishes the butter. The man on the farm furnishes the home with vegetables by turning over to the woman a plot of ground, while the man in town furnishes the vegetables.

The man on the farm furnishes the home with cloth to be cut up and made into dresses, while the man in town furnishes the dresses finished for wear. The man on the farm furnishes coal in the coal shed or wood in wood pile for fuel and kerosene for light, while the man in town furnishes gas and electricity for fire and light. The man on the farm furnishes water at the pump, while the man in town furnishes running water in the house.

On the average, the products furnished the home by the town man are more finished than the products furnished the home by the farm man, and this is the reason why the country woman has to work harder and longer than the town woman. The reason for this can be laid in part to the difference of environment between the farm home and the country home and in part to a long established custom.

The gasoline engine and the various labor-saving machines are solving the problem for the farm women. It is just as essential that the work of the housewife be simplified by taking advantage of the modern improvements now available as it is for the farm work to be performed with improved machinery.

Proper Care of Car

The life and health of a motor car, like godliness in men, is closely akin to cleanliness, writes Dr. Leonard Keene Hirschberg, of Johns Hopkins University, in the current issue of American Motorist. The sweetness and purity of its appearance is intimately associated with the length of its life, the friction and well being of its component anatomy. You cannot keep your car too clean or the sheen on its body too well polished. Motorists are now are familiar with the axiom, "Spread yourself in oil and save your metal." This is only the application to the motor car of the over-worked and age-old allusion to medical advice, "An ounce of prevention will save a pound of cure."

Show me a dust-filled, dirty, soiled machine, and I will make the prophecy of a short shift and rapid depreciation of the car. Dirt, lack-luster and a dulled car body spell worse than rapid loss of value. Among the "don'ts" for the caretaker of a car are these:

Never run the car in the mud if a detour will permit you to escape it. Mud is the natural foe of machinery. Never use rough cloths with which to wipe, clean or polish your car.

Never use an excess of oil or body polish.

It collects dust and turns it into grit.

Never use muddy or soiled water with which to wash your car.

Never fold a top down when it is wet. Never allow mud to remain on a car one moment longer than is absolutely necessary.

Never allow mud, if possible to prevent it, to dry on the car. Wash off immediately with cold water.

Never dig, scrape, chisel or shovel mud from the polish. It destroys the varnish and paint.

Never use force for any purpose. A weak solution of soda will cajole the toughest mud and grease from the body.

Never dry the surface with soapy water on it. Rinse all soap and soap-suds off before drying.

Never use any rough-fibered cloth. Chamois skin has a high first cost, but is cheapest in the end.

Never employ a roundabout circular rotary motion in polishing the car. A straight out, back and forth, piston thrust is what should be used.

Never use hot water on the car. Wash with cold water.

Never accept Tom, Dick and Harry's "sure restorer" of the original factory sheen and luster. Mark Twain said that everybody has a "certain cure for colds." So almost every driver and garage keeper implicitly avows his body polish to be the best for the car. Dead men tell no tales; neither does the injured finish on a car.

Shun all such as Billy Sunday flees Old Nick. Instead buy some boiled linseed oil; never use the unboiled oil. It will not do. Also some furniture wax, and let elbow grease do the rest. The varnished part is first washed, cleaned, rinsed and dried, then the boiled oil is lightly applied and rubbed completely off. The lighter metal parts will be thus restored like new; the heavier parts can be still further finished with the furniture wax massaged to a highly lustrous polish.

Rough, heavy soaps, full of alkali, also eat into the varnish and coats of the body. You will avoid this in manuring your car by heating a gallon of water into which is stirred a pound and a half of soap. This is your stock solution of soap for the chassis, body, and other parts. It should, of course, always be applied with a soft, silky sponge, rinsed off with clean, cold water, and dried with a chamois skin.

Home-Made Bean Harvester

A considerable acreage of beans has been put out in Kansas this year and a very large acreage has been planted in Colorado. Those who have beans to harvest may be worrying as to how they are going to get this work done.

The best method of harvesting is by using some of the standard and well-tried-out makes of bean harvesters. For any acreage as large as ten or over, such a harvester will pay for itself. It is quite probable, however, that the demand for harvesters will be greater than the machinery houses will be able to supply, in which case some home method of harvesting will be essential.

Alvin Keyzer, of the Colorado Agricultural College, says that it is quite feasible to make a harvester at home, assisted by the blacksmith. Two strong sled runners should be made out of two-inch planks, and rather strongly braced between them, because they will be subjected to heavy strain. At the outside of these runners, heavy steel knives should be fastened. The knives must be so placed that they will run under the surface of the ground so as to cut off the beans one to two inches under the ground. Any good blacksmith can make the knives for such a cutter, or could make the entire cutter.

There are some of these home-made cutters in use which are working successfully. They are not as good as the regular commercial harvesters, but they are better than any of the hand devices, and are quite cheap. It is quite probable that a little experimenting will be necessary in order to set the knives at the right angle for the particular soils.

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CORN CROP PROSPECTS

The Government August 1 forecast for corn is over three billion bushels, which is over six hundred million bushels more than the yield of 1916 based on December estimates. Some independent observers believe that the Government forecast underestimates the probable crop. Over much of the corn territory conditions have been improving during the past two weeks. Many farmers of Kansas have seen their corn burn up before the rains came. The late corn will be the only corn in some sections of the state that will produce anything in the way of grain. Even though Kansas as a state does not produce a big corn crop, it is most encouraging to the live stock man to learn of the possibility of big corn yields in other states. The unprecedented prices of feeds have been most detrimental to the live stock business. It is almost impossible to feed corn profitably to animals when it costs two dollars or more a bushel. Live stock products of all kinds have increased in price, but not in proportion to advances in feed prices.

There is a limit to what consumers can pay for the various live stock products, and when prices reach too high a level the demand automatically falls off. The Government through the Food Commission is making strong appeals to farmers to save the dairy cows and to produce all the meat products possible, but farmers cannot continue indefinitely in any line of business which results in loss. The latter part of June the National Dairy Council presented the dairy cow situation to the Food Commission in Washington and received assurance that this great industry would be given immediate attention. Definite steps have already been taken toward getting at the facts in the dairy business.

A great deal of attention has been given to the matter of encouraging maximum production of wheat. The wheat grower is now practically insured against possible loss. The live stock business, however, should not be overlooked. A man can get into the game of producing wheat within a comparatively short period of time. In fact, he can start in now and with money for seed, or seed on the share plan, and enough capital to get the seed bed ready and a crop planted, put out a maximum acreage this fall. It takes time and much patient, painstaking effort to get well established in the live stock business. Our live stock men represent a high class citizenship, but no matter how patriotic they may be or how anxious to serve the Government in the present emergency, they cannot render the best service unless they can at least break even. We trust the Food Commission will give immediate consideration to the many problems of live stock production. The maintenance of healthy conditions in this phase of agricultural production is of vital importance to our national welfare.

HOG INVESTIGATION VALUABLE

Pork producers of Kansas can well afford to co-operate to the fullest extent possible with the State Board of Agriculture in its investigation of the hog business of the state. A blank has been furnished to hog men all over the state containing a very comprehensive series of questions. Many of these blanks are being filled out and returned and a great deal of valuable information is being accumulated. There seem to have been some minor misunderstandings, however, which are keeping some from sending in such information as they have. Regarding this, Mr. Mohler, secretary of the board, says:

"Some of the men to whom we mailed hog blanks for filling out got the impression that unless their replies were received by August 1 they would be too late for use. This is wrong. Although we named August 1 as the approximate date on which the replies might be in, we fully realized that no arbitrary date could be set, because during the busy

summer season the farmer cannot always give his correspondence the attention he would like. We should like every hog raiser to know that his filled-in blank is still very acceptable, and we need and should be very glad to receive it just as soon as he can conveniently send it in. We would rather wait a little longer and have a completed blank than to receive it now only partially filled. Furthermore, we do not intend to 'close up' the work until we are satisfied that practically all the replies that are coming are here.

"Another false impression that has somehow got about is that we want only the replies of pure-bred breeders. The replies of pure-bred breeders are highly desirable and necessary, yet our investigation would not be complete and truly representative did we not also have replies from the producers of market hogs and the owners of grade herds. We want and need them all."

IMPROVED SEED WHEAT

We have watched with considerable interest the movement under way in Cloud County to improve the quality and yield of the wheat in that county. Since wheat in that section was almost a failure on many farms, some seed will have to be imported from other sections.

Through the activity of the farm bureau of the county and its agricultural agent, Karl Knaus, 800 bushels of the Kanred seed has been purchased. This is the improved variety of hard red wheat developed by the Kansas Experiment Station. Twice this amount could have been placed among Cloud County farmers if the seed could have been obtained. The farm bureau voted at its spring meeting in 1916 to conduct a series of tests to determine the variety best adapted to the conditions in that county. Kharkof, ordinary Turkey, and some soft wheat varieties were being grown. Five varieties were sown under identical conditions in different parts of the county. Kanred in one test produced 10.5 bushels more per acre than the variety ordinarily sown in the locality. This was an unusual yield even for this variety. Other tests showed that it averaged about three bushels per acre more than the other varieties.

The farmers of the county who get some of this carload of Kanred seed will agree to sow it on ground absolutely free from volunteer wheat and thresh it next year after a job of oats has been threshed by the machine so that the seed can be kept pure.

This sort of work should be going on all over the state. A county farm bureau can be of great service to all the farms of the county by conducting such tests. Through the county agents the results can be given wide publicity, and the agricultural practice of the whole country can be raised to a higher level.

DRY WEATHER DAIRYING

Dry weather and short crops in Kansas have always meant more milking of cows. This has been especially true in the wheat growing sections of our state. When wheat is a good crop and brings a good price, there is little interest in milking cows and sending the cream to market, but let there come a pinch in grain production and the importance of the cow as a source of revenue looms up. The alarmist who fears our milk cows are going to the central markets for slaughter should not forget that the animals capable of turning the poor, stunted forage and the grass and weeds into a product that will bring in some real money each week, will be the last to go.

Beef cattle may be sent in to central markets in large numbers as pastures dry up and feed gets scarce. That is the way the beef animal turns into money the grass and other feed. It must yield up its body to slaughter in order to convert into cash the grass and other feeds eaten. Only when the sacrificing sends to the slaughter the cows and

young heifers that must be depended on to keep up the stock of meat producing animals, does it become a menace to the live stock business.

Dairying is an anchor to windward in a short-crop year, and we know from former experience that Kansas farmers will hang onto the animals that can help pay the grocery bills from week to week throughout the year when there is nothing else to sell. Even now farmers in the sections where crops are reported to be in the most critical condition are turning to the cow. As a rule there are not what would be called dairy cows. They are just ordinary cows selected from the common stock because they have shown some capacity for milk production. It would be more profitable if people would make the milking of a few cows a regular business whatever the year and plan to keep cows of higher productive capacity.

It has been reported to us that already fields of lam's quarter, Russian thistles, and other weeds which crowded in where barley and wheat were killed out or thin are being mowed and stacked as feed for these cows. Men who are doing this realize what a cow can do with even such poor feed and are looking forward to securing a little income from material that too many are letting go to waste.

It would be a short-sighted policy to sell the only animals that can convert into money these low-grade, stunted, and immature crops. We believe the experience of the past will bear us out in the statement that the milking of a few cows—as many as the labor available can handle—will help to tide over on many a farm a period which may seem to present nothing but discouragement. It is being done all over Kansas, and what a few here and there can do can be put into practice by others in the same circumstances. Give the milk cow a chance. Her product is in worldwide demand and she will well repay the effort expended in milking and handling her products and saving every particle of feed grown in order that she may have material from which to make milk.

On page four of this issue is an article setting forth the possibilities of sheep production on the farms of Kansas. The writer, who is an experienced man in handling sheep, first gave this article in the form of an address at the 1916 annual meeting of the Kansas Improved Stock Breeders' Association, and it has just recently been printed in the twentieth biennial report of the State Board of Agriculture. This volume is fully up to the standard of previous biennial reports. It contains many specially written articles covering such subjects as rural welfare, extension service, home economics, farm homes, farm management, rural engineering, soils and crops, live stock, poultry, and farm forestry. All the articles are finely illustrated. As usual the publication contains valuable statistics on Kansas agriculture. The value of farm products of Kansas for the biennium of 1915 and 1916 is given as \$714,000,000, which exceeds the value of the best preceding biennium, that of 1913 and 1914, by \$96,000,000. War prices have largely been responsible for these record values. For the first time in its history the board gathered statistics of tractors, cream separators, and Sudan grass, which is a new and valuable addition to the farm crops of the state.

The Food Bill which was signed by President Wilson last week gives the Government sweeping war powers. As expected, Herbert Hoover was at once appointed food administrator. He has stated that the powers of the measure will be used to stabilize and not disturb economic conditions. The first move will be to bring about changes in the system of distributing wheat and in the manufacture and sale of flour and bread.

COST OF MILK PRODUCTION

While comparatively few of the farmers of Kansas are producing milk for city trade, every man milking cows is interested in the situation which exists in the neighborhood of large cities where there is a heavy demand for market milk. City people seem slow to realize that the man producing milk cannot sell it for less than the cost of production and keep at the business. The town merchant who fails to secure a fair margin of profit must quit the business or go broke, and the same is true of the farmer.

Milkmen supplying Topeka with milk recently got together and as a result of a discussion of the situation agreed to raise the retail price to twelve cents a quart. Almost immediately consumers began to use less milk, and as a result prices are in a most unsettled condition. Many of the men producing milk in this locality would be satisfied if they could barely break even until the present emergency was over. It would be a great sacrifice to dispose of a good dairy herd, and the man having dairy cows would rather do business for a time without a margin of profit than to dispose of the animals he has spent considerable time and effort getting together.

The same sort of conditions are causing trouble all over the country. The city distributors of Des Moines, Iowa, have actually got out an injunction against the milk producers, forbidding them to meet for unlawful purposes. The milk producers around Des Moines have been organized for over a year, and all they now ask is that a representative committee of citizens investigate carefully the cost of producing milk under existing conditions, believing that if this is done the consumers will be fair-minded enough to recognize the necessity for a raise in price. This being refused by the distributors, the producers simply began skimming their milk, selling their cream and feeding the skim milk to hogs and poultry.

The people of the cities hold the key to the situation, but apparently they need a lot of education on the food value of milk and the cost of producing it under present conditions. Milk is a most important article of food and consumers cannot afford to put out of business those who are supplying them with this necessary food product. If the dairyman is compelled to sell his cows or change the method of marketing as they have been temporarily doing about Des Moines, the final result would be that milk would become a scarce article at any price. City people should welcome publicity bearing on the food value of milk and the cost of producing it. It is a most short-sighted policy to ignore conditions and try to force the producer of milk to stay in the business at a loss.

Some of our dairymen are none too progressive in this matter of organizing for the purpose of going into the business in a businesslike manner. There is much to be accomplished in addition to fixing prices. In fact, many other things must be done before much can be accomplished in establishing fair prices. An accurate farm survey made by one trained to get at the different cost items would be of great value to those conducting the dairy business. Such surveys have been made in some of the dairy districts of Kansas. The dairymen around Topeka would be greatly benefited by having a careful business analysis made of their method of production. It would furnish information that would easily lead to economies of various kinds and in addition place them in a position to furnish facts to consumers instead of unsupported statements. The matter of fixing prices is by no means the most important reason for the forming of a dairy organization, and yet some dairymen seem to absolutely lose interest in such an organization excepting as it has a bearing on the fixing of prices on the product.

SHEEP GROWING PROFITABLE

Both Wool and Mutton in Demand at High Prices—C. E. Wood, Shawnee Co.

SHEEP husbandry should receive more attention from the farmers of this country than it does at the present time. Unquestionably, sheep raising could profitably be fitted into the general management of thousands of farms where there is none at the present time. On many other farms the size of the flock could be increased and more attention given to this branch of farming with resulting profit to the owner.

The various phases of sheep husbandry afford numerous channels through which the skill of the pure-bred stock breeder offers special inducements to many, while a larger number are content with the production of mutton and wool for market purposes. In the breeding of pure-bred stock the beginner has a number of valuable breeds from which he can make a selection. It is not so much the breed selected that will lead to success as it is the care and management. It must be noted, however, that certain breeds have a wider range of adaptability and are more popular. The number of pure-bred flocks is increasing every year and the demand for good breeding stock is more than keeping pace with the increase.

With a commercial flock there are several phases that are worthy of consideration. Early spring lambs is one of the most important, while late spring or early fall lambs should receive due consideration. The production of winter or so-called "hot-house" lambs is well worth undertaking by those who are favorably situated. This early lamb is a high-priced product and should prove profitable under favorable conditions.

NEW ERA IN SHEEP PRODUCTION

Many farmers have disposed of their flocks and many others have refrained from entering the business because of some of the difficulties that are peculiar to this industry. Among the most important of these are cur dogs, parasites, and diseases. A certain amount of trouble is inevitable where these abound, but ordinarily this should not be sufficient to discourage the flock master. Good management and proper care will control, if not eliminate, these difficulties. The flock that must rustle for itself is the one that suffers most from these sources. Sheep are good scavengers but should not be made to subsist upon weeds alone, with little or no attention on the part of the farmer. The sooner the owner realizes that his sheep cannot return satisfactory profits under such conditions, the better it will be for him. Any extra care and feed given to the flock generally yields the greatest returns.

Sheep have ever been in the vanguard of civilization. This country has been no exception in this respect. The magnetism of cheap lands has constantly drawn the industry westward, creating a quite general impression that sheep are unprofitable on high-priced land. This may have been true in the past, but the industry is undergoing an evolution. The range is almost completely occupied and is constantly decreasing in extent. The cost of running sheep in the range country has gradually increased, and today many western people are returning to the East for the purpose of raising sheep.

The period of exploitation is passing and a new era of constructive live stock farming is at hand, which means that a more intensive system of sheep farming upon high-priced land must follow. This is already in evidence in certain localities and with better care than is now generally given the sheep, should prove more extensive. In England the question is not whether you can afford to keep sheep on high-priced land, but whether you can afford to keep high-priced land without sheep.

SHEEP AND SOIL FERTILITY

Sheep will increase the fertility of the soil if they are handled properly. To do this, they should not be permitted to crop off the grass too closely, which they will do if the pasture is overstocked or if they are permitted to remain in one field too long. Sheep manure, with one exception, is the most valuable of all farm manures. It is thin and evenly scattered over the ground and does not produce a rank growth in spots of the pasture, as do other manures. The manure is also worked into the soil by the sharp hoofs

of the sheep, so that it is not washed away, but becomes available as plant food. This quality has well earned for sheep the title of "golden hoof." In England land which during Queen Elizabeth's reign produced only six bushels of wheat per acre has been made to yield thirty bushels at the present time, by the use of sheep. Many farms throughout the state that have been cropped for twenty or twenty-five years are rapidly decreasing in their productiveness, and there is no class of live stock as well adapted to the building up of an old, run-down, worn-out farm as are sheep. Their droppings are rich and are scattered over the fields in a better manner than could be done with the most improved manure spreader.

SHEEP ARE WEED EXTERMINATORS

Again, as weed exterminators, sheep have no equal. A few over 600 varieties of weeds are classed as growing in the region of the Mississippi Valley. Sheep will eat 576 of them, horses but 82, and cattle but 56, and the farms in this state that do not need to be cleaned of weeds are very few. Sheep not only destroy these weeds, but at the same time convert them into sweet, delicious

flock had been bred for early lambs, a little later the earliest and best of the lambs should be ready for the market at a time when the market would be ready for them and at very fancy prices. Fat lambs have been selling at better than 15 cents a pound. If it is desirable to dispose of part of the flock soon after the lambs are weaned, if the ewes have been well cared for they will be ready for market, while with a cow it would take at least two years to get much of a return on the face of the investment. It is a poor sheep that will not shear enough wool each year to pay for its keep for the entire year.

INEXPENSIVE EQUIPMENT REQUIRED

It does not require expensive fencing to keep sheep where they are wanted. A good woven wire fence, of course, is best, but five good barbed wires properly placed will keep them at home. Often the objection is made that sheep cannot be pastured with other live stock. This is not true so long as there is plenty of grass in the pasture. Horses, cattle and hogs will thrive just as well if there is a flock of sheep among them as if they were in separate fields. The only thing to be guarded against is not

sheep, to let one of the commission buyers at the stock yards pick out his breeding ewes, if possible. One day recently a Missouri farmer was at Kansas City to buy some breeding ewes, and his eye was caught by a drove of aged western ewes that he could get for 7½ cents a pound. They looked cheap to him. There was another lot of ewes offered, young blackface ewes one to three years old, but these were held at 14 cents a pound. He asked one of the commission salesmen about it, and was told to let the western ewes alone and buy the blackface ewes.

"Western ewes are all right," said the expert, "and aged western ewes are frequently the best for a farmer to buy, but this is a drove of 'come-backs'; that is, they have been in this country for two years, and they won't do you any good. There will be good western ewes, direct from the range, offered in August and September, and lots of chances to get them, although they will not be plentiful. Buyers will get better ones by putting their orders in early and giving the commission man a little time in which to pick them up. You take these blackface ewes and as soon as you get them home they will be worth \$20 apiece, for that is what anybody in the country that has a drove of ewes like these will ask you for them."

Buying Western Ewes

A phase of the sheep industry which has proved especially profitable in Central and Western Kansas is the practice of buying thin, strong western ewes in the fall, breeding them to good pure-bred rams, carrying them through the winter, shearing in the spring, and marketing both ewes and lambs in the fall.

A. M. Paterson, of the Agricultural College, points out that this practice gives two cash crops—wool and lambs—besides an increase in value of the ewes if they are properly handled.

The success of this plan depends largely on the buying of the ewes. Ewes may be bought on any of the live stock markets or on the range. The time of buying will depend on local conditions and prices. They may be bought early in the fall where pasture and roughage are abundant. They should be bought a little later if feed is scarce.

Great care should be taken in the selection of the ewes. They should not be over four years old and should be strong and healthy, with plenty of constitution and vigor. The wool should be fine, dense, and not open.

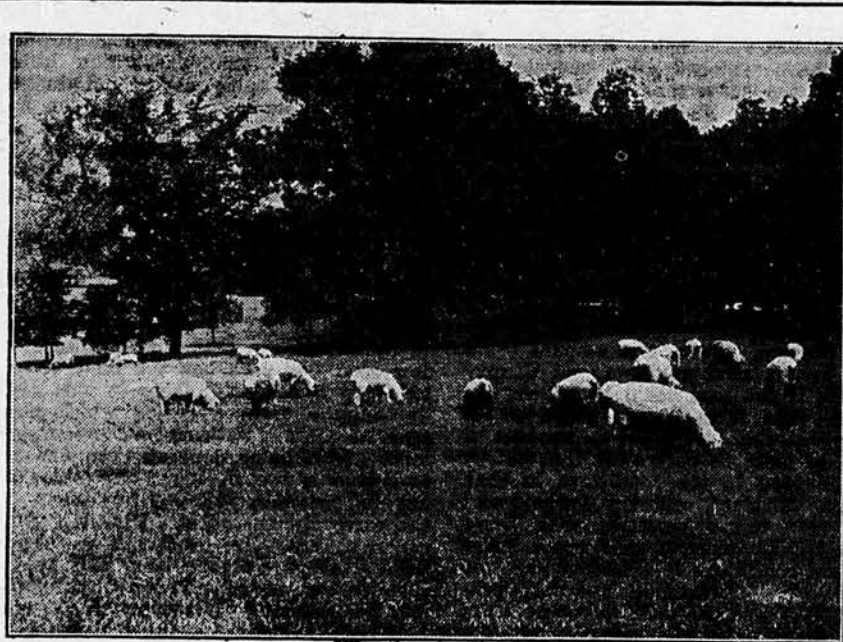
The time of breeding the ewes will depend on the housing facilities on the farm. The gestation period of ewes is from 145 to 150 days. Where good sheds are provided it is a good plan to have the ewes lamb in February and March. On the other hand, where poor sheds are provided it is safer to have the ewes lamb later in the spring when the weather is warmer.

The flock should be given a little extra care during the breeding season. If the ewes are thin, some grain should be fed a few weeks before breeding, as this tends to put them in a more thrifty condition.

The rams should be of good mutton type, having plenty of size, vigor, and constitution. A mature ram should not be allowed to breed more than forty to fifty ewes. It is a good practice to turn the rams with the flock at night, taking them away during the day and feeding them some grain.

If the ewes are in good condition they may be maintained on roughage alone after they are bred. However, if they are very thin it is well to feed them some grain. It is also a good plan to feed the ewes a little grain before lambing, because it tends to give a larger flow of milk and puts them in better condition.

Parsnips, carrots, turnips and beets will keep fresh and whole and not shrivel up if they are stored in boxes filled with sand. They should not be packed too close together, but some of the sand should be allowed to get in around the roots. Celery may be stored in the same manner. The plants just as they are pulled from the ground should be placed in the boxes. The plants should be stood up, and sand should be packed in around them.



SHEEP GRAZING ON CAMPUS OF KANSAS AGRICULTURAL COLLEGE, MANHATTAN

meat. There are few farms that have not some odd corners, old feed lots, or waste land that is growing to weeds and brush that might, by the use of sheep, be returning a handsome profit.

An old feed lot sown to rape early in the season will prove a profitable investment; thin patches in the corn field or around its edges, sown to rape, will furnish feed for many lambs during the fall, and after the binders and headers there are always more or less shattered heads that might be turned into mutton if sheep were given an opportunity to get this grain. To the man of restricted means there is no class of live stock that offers greater opportunities for investment. It is estimated that ten head of sheep can be pastured upon the same amount of land and will require about the amount of feed the year round that one cow will consume, and ten sheep can be bought for about the same amount of money that a cow can.

SHEEP BRING QUICK RETURNS

Pure-bred sheep are worth, when compared with grades, say about in the same proportion that a pure-bred cow is worth when compared with a grade. So it matters not whether the comparison is applied to pure-bred stock or grade stock. In the one case the owner has all his money tied up in one animal; in the other case he has it in ten, and there is no more danger of losing a sheep than there is of losing a cow if proper care is given them. And again, to the man of restricted means, a flock of sheep will give much quicker returns and returns much oftener than the same amount of money invested in cattle. Suppose one should invest in a flock of breeding sheep in the fall of the year. His first returns would be in March or April, when the wool would be ready for market. If the

to have old sows with ewes during the lambing period.

There are many who believe that sheep require a great deal of care and much special attention. This, however, is not correct, as we have no domestic animals that are more easily handled or that require less care for the greater part of the year than the flock of sheep. For the successful handling of a flock there will be a period during the lambing season when close attention will be required, but during the remainder of the year very little time need be spent with them. Salt should be kept in the sheep corral at all times. It should be placed where it will be free from dirt and off the ground so they will not be stepping on it. A little sulphur mixed with the salt is considered by many as a good preventive of disease.

MUST HAVE GOOD RAM

The ram has as much influence upon the flock as the entire ewe flock bred to him, which fact gives rise to the old saying, "The ram is half the flock." It will thus be seen that the selection of the ram is of prime importance. Improvement in breeding can be brought about in a flock at less expense by the use of a good ram than in any other way. A good ram is a valuable investment, and the few extra dollars in cost over the price of a mediocre one multiply themselves in returns on the lamb crop. The wise selection of a single ram has in many cases made a flock famous. I am sure it will doubly pay any farmer to invest in a small bunch of breeding ewes and enjoy the large returns yielded by them.

Buying Breeding Ewes

It is safer for any farmer, unless he has had long experience in handling

GENERAL FARM INQUIRIES

Something For Every Farm—Overflow Items From Other Departments

A SHAWNEE County reader asks for smokehouse plans. We believe a good smokehouse should be part of the equipment on every Kansas farm, although meat can be successfully smoked by the use of very simple arrangements. Sometimes even a barrel can be extemporized as a smokehouse for a small quantity of meat.

The smokehouse plan here illustrated was designed by the engineering department of the North Dakota Agricultural College. Being built entirely of concrete, it is absolutely fireproof and will last a lifetime. It can also be used as a storage for meat, being cool and sanitary. If there is danger from thieves, the door should be provided with a good lock.

The firebox in this smokehouse is placed on the outside of the building. This makes it easy to replenish the fire and keep it under proper control. It also lessens the danger of too much heat getting to the meat. It will be noted that shelves are provided at one end. An opening for ventilation is made near the roof at the back end. This should be screened.

The material required is as follows: Forty-eight sacks of cement, 6 yards of sand, 18 loads of crushed rock, one door, two 2x8x12 feet pieces for the door frame, and three 2x4x14 feet pieces for the cross pieces used to support the meat hooks.

The following lumber will be required for forms: Ten 2x4x18 feet, sixteen 2x4x8 feet, and 600 feet of sheathing boards. Set the studs for the forms two feet apart on centers and wire the forms together half way up. Lumber that is to be used for some other purpose can often be used for forms.

The general plan of this concrete smokehouse can be followed in building one of lumber. The floor, foundation, and fire pit should if possible be made of concrete.

There seems to be a return to the old practice of curing meat on the farm for home use and we hope many of our readers will prepare to store and cure their own meat the coming season. If a good permanent smokehouse is to be constructed, it is a good plan to build some time in advance so as to have it ready for use. It is always safer to do concrete work before freezing weather begins. It costs money to ship hogs to market, cure the meat, and ship it back to the local store to be sold over the counter. By doing these things on the farm, this money can be saved, and in addition you can have better meat.

Handling Cows on Shares

M. D. B., Kiowa County, writes that he has some cows which he is handling on shares, and asks how long he should care for the calves for the owner, whether longer than weaning time or not. He also asks if there are any definite rules for handling stock on shares.

We believe that arrangements whereby a partnership in the handling of live stock can be worked out between owner and tenant will tend to better renting conditions both for owner and tenant. The terms of the live stock part of the agreement should be definitely worked out.

It is quite customary for the tenant to own a half interest with the owner in the stock other than the horses. If any of our readers have had any experience in leases of this kind they would be rendering a service to many by furnishing us the terms under which they have been operating. We published some months ago a model stock share lease which had been worked out by a group of farmers in Illinois. A copy of this lease has been sent to our subscriber.

Curing Alfalfa Hay

Even in a dry year we are apt to have some trouble during the season in getting alfalfa cured without its being damaged and in such shape as to retain all its leaves. We were much interested last year in learning of the methods worked out by John Greenlund, one of our readers in Washington County. Mr. Greenlund has fifty acres of alfalfa and in 1915, the year in which it rained all summer, he found it unusually difficult to save his hay in good shape. He

finally adopted the practice of using two windrowers attached to the sickle bar. These make a rope about a foot wide and throw the leaves in such a way that when they will they overlap, forming a covering for the top. Following a heavy rain when this rope was turned with a side delivery rake, 50 per cent of the hay would be as dry as when cut the day before. The windrowers also throw the hay up on the stubble, leaving an air chamber underneath, and this helps in the curing. In 1915 in spite of the frequent rains Mr. Greenlund saved every bit of his fifty acres of alfalfa. This device has helped him solve this question so he does not worry so much about his alfalfa and the rains.

This year the principal worry has been from lack of rain, the third cutting of alfalfa all over the state being extremely light. Now that the rains have fallen, however, the alfalfa will make a fine growth and should turn off a good crop. In case we have frequent rains during the harvesting of this last crop, it is possible Mr. Greenlund's idea may help some of our readers in saving the alfalfa with its highest feeding value.

Hogs Require Grain

W. L., a Pottawatomie County reader of KANSAS FARMER, says he cannot understand how some men claim to have sows and pigs do well on alfalfa pasture without grain. He says he has six fine alfalfa pastures from which he has cut fifteen tons of hay this season. They have fine shade and water, but the sows and pigs are not doing well. In fact he feels ashamed of them. He says a sow and pigs must have a little grain on the best alfalfa pasture, and the question confronting him is how can the grower afford to give them this grain with corn worth \$2.20 and little prospect for a good new crop.

Our correspondent has twenty sows bringing pigs now, and he says no man can feed \$2.20 corn to \$15 or \$16 hogs and come out ahead. "Come on, men, and help me out on this question," is the appeal with which he closes his letter.

We give this reader's problem in some detail in the hope that some of our hog men may have suggestions that will be helpful not only to him, but to many others. His contention that, even with the best of alfalfa pasture, sows and pigs must have some grain, is absolutely correct. Alfalfa pasture or even alfalfa hay may be used to merely maintain mature hogs, but pigs cannot be grown and developed properly on pasture alone, no matter how good it may be.

Now that quite general rains have fallen, the prospect for a corn crop has greatly improved. Even though we do not raise enough corn here in Kansas, a big crop in the great corn states would give hope at least of a lower price. The August 1 Government forecast for the United States is 3,190,000,000 bushels.

Last year's production, on the basis of December estimates, was 2,583,241,000 bushels.

There is another possibility for the Kansas hog man to get out without serious loss, and that is to sell his undeveloped pigs and shoats to the farmers in Iowa, Missouri, and Nebraska, who seem to be short on hogs but with prospects for a big corn crop. We explained in last week's issue the steps that had been taken by our State Board of Agriculture to get co-operation between Kansas men having surplus pigs and no grain in sight and men of other nearby states wanting to buy stock hogs. To take advantage of this co-operative proposition, men with pigs on their hands which they must sell should write to Secretary J. C. Mohler, Topeka, Kansas, giving full details as to what they have.

It will take a little grain to get late summer or fall pigs ready for this outside market, and even though grain is high it might pay to buy what is necessary so as to have the pigs in proper shape to turn over to the man with grain to finish them. We hope some of our hog men will write us telling how they are planning to handle the hog situation.

Disking Wheat Stubble

A reader in Eastern Kansas writing under date of July 28 says he sees the suggestion frequently made that wheat stubble should be disked as soon as possible after harvest. He wants to know what good it will do to disk a field that is so dry and hard that it is all full of big cracks. If there was any moisture in the soil he says he could see where disking might be valuable in helping to hold this moisture so the ground could be plowed in good condition later.

Of course this letter was written before any rain had fallen. Conditions have changed wonderfully since that date. We know there were many fields where it would have been labor thrown away to disk before the ground had received any moisture. The man on the ground is the only one who can decide whether a suggested operation will be effective in bringing about the desired result. All farm operations are based on certain general principles. With the ground as dry as a bone, disking could not be expected to accomplish any results in conserving moisture.

Now that sufficient rain has fallen to wet the ground in good shape, it is possible to take advantage of the principle upon which the disking of wheat stubble is based. If the plowing could be done quickly before the ground could lose much moisture, it might not pay to disk. Disking, however, gets over a large area in a short time, and in addition to putting in good tilth the surface, which goes to the bottom of the furrow when the land is plowed, it serves to hold moisture so the plowing can be done in good shape long after fields left undisked have become too dry to plow.

Following the rains, weeds and grass will spring up rapidly in wheat fields. Weeds draw moisture from the soil rapidly and disking the fields will check this growth and thus stop this source of moisture loss. We believe that on many fields the use of the disk in advance of the plow will pay. It means some extra work in seed bed preparation, but those who have had experience know that plowing is not nearly so heavy a job where the land has been disked first. This lightening of the plowing work should be taken into consideration in figuring on the cost and advantages of the disking.

Sow Rye for Pasture

If you keep hogs, sheep, or cattle, you should sow some rye this fall for pasture. It will furnish pasture both in the fall and in the spring. In the fall it will furnish grazing after all other pasture is dead, and even in the winter when the ground is solid, stock may be run on rye. It is the earliest pasture available in the spring.

If you sow a patch of rye this fall, it will be the means of saving you many bushels of corn, and corn at \$2.40 a bushel is well worth saving. Some sow rye in corn at the last cultivation, but I have not found this to be a very good practice here in Kansas. It is usually too dry, and this cuts the stand of rye to one-fourth of a normal stand. If you have no idle piece of ground, cut a small patch of corn for feed and plant the rye on the land so vacated. It should be sown earlier than wheat.

Seed rye will be higher than usual this year, but so are all other feeds and seed. We also get higher prices for the stock, and we can well afford to sow rye with the expectation of having it return a good profit in saving feed.—WILLIAM EWEY, Linn County.

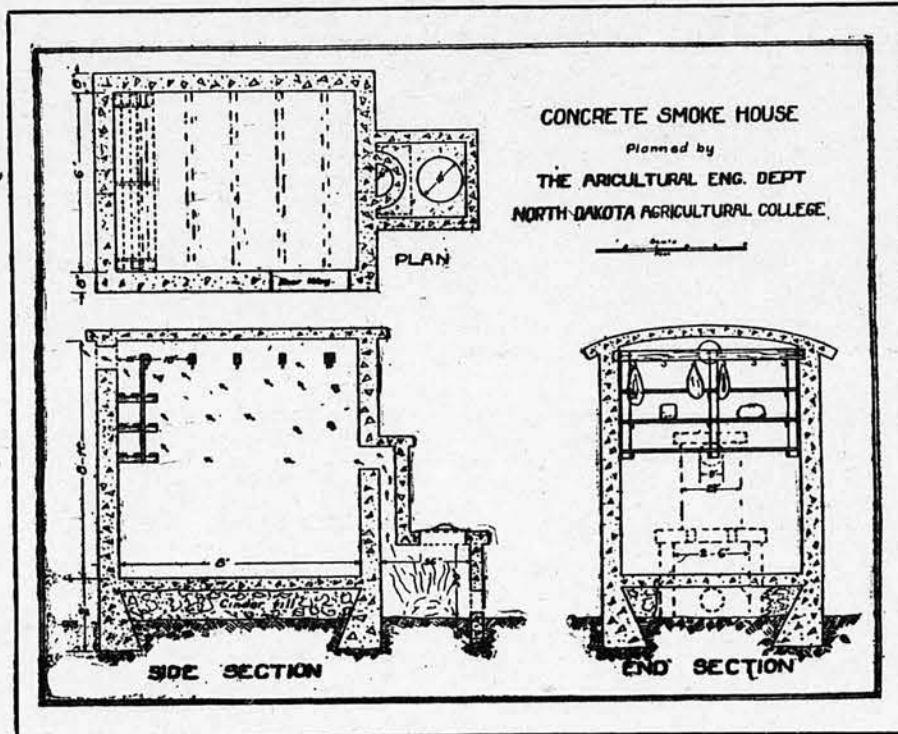
Straw Spreading Saves Wheat

We have constantly urged that all straw be saved and put back on the land. It seems almost a crime to burn straw, and yet every year many stacks are burned simply to get them out of the way. The spreading of straw on many farms has resulted in saving a wheat crop, or at least in greatly increasing the yield. We have just received a letter from a reader in Pottawatomie County, telling of his experiences along this line the past season. He says:

"I would like to answer the inquiry of your reader who recently asked how to prevent wheat from winter killing. Last fall I bought a straw spreader of a kind advertised in KANSAS FARMER and spread all the straw I had. I aimed to put this straw on the poorest land in the field. The winter was awfully dry and windy. There was little rain or snow to settle the straw and it blew away some.

"The wheat on the strip spread with straw will yield twice as much to the acre as the rest of the field. We are now plowing this wheat field and the ground is very hard and dry, but when we strike the strip where the straw was spread we find moisture and it breaks up in fine shape. We are plowing seven or eight inches deep, but nowhere else in the field do we strike moist earth. I figure that the straw helps in several ways. It protects the wheat so it does not winterkill. It holds moisture, and in plowing it under for the next crop it adds organic matter and fertility to the soil. Using straw in this way will increase your bank account. By all means spread all of the straw stack bottoms on the land. Three men and a team can easily spread fifteen acres a day.—WILLIAM LITTLEFIELD.

It will pay you to plow early for wheat. It will also pay you to disk your ground before plowing. Disking destroys weeds that sap the ground of moisture and fertility. The fertility is held too long from the wheat by these decaying weeds to help the wheat to any extent. Disking makes plowing easier and turns a loose, mellow soil next to the subsoil, thus making it possible to work soil into a much better seed bed. A little time and money spent on the seed bed will pay you by increasing the yield.





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Write for our book of letters from farmers who are making good there now, also illustrated folder with particulars of our easy-purchase contract. Address

E. T. Cartledge,
Santa Fe Land Improvement Co.,
1892 Santa Fe Bldg., Topeka, Kansas.

DAIRYMEN

Ship you empty dairy and feed bags to us. We pay highest market prices.
JOS. F. FINN CO.
24-26 Shawnee St., Dayton, Ohio. Dept. K.

When writing advertisers, please mention KANSAS FARMER.

Wins a Cow

My cow did pretty well this month and I am glad that I entered the contest, for I am just a cow ahead whether I win a prize or not. I am sending my last records.—**EVERETT ZIRKLE, Berryton, Kansas.**

The Garnett Condensed Milk Company opened its new plant for operation at that point July 15. Garnett is a good dairy center. More than 500 dairy cows have been shipped into that station since April 1.

Kansas Farmer Dairy Club

Value of Skim Milk

MOST dairymen base the profits of the work they do on the butterfat sold. The by-product, skim milk, however, should not be overlooked. There are a good many different ideas as to the feeding value of skim milk. A good deal depends on the way it is used, what kind of stock it is fed to, and the kind of feeds with which it is combined. Probably the reason we commonly do not place a high enough value on skim milk is because butterfat brings a high price and we assume that when we have taken out the cream, or fat, we have taken out the most nutritious part of the milk.

Fat is a valuable product, but as a feed it is absolutely worthless as a producer of growth. All the growth-making material is left in the skim milk. It contains the protein in the form of casein, which is the part that thickens when the milk sours. Protein is the material in feed that makes muscle, or lean meat. About all the ash, or mineral matter, is left in the skim milk and this is used in making the bones of growing animals. A small amount of fat is necessary for young animals and the whole milk contains it in the right amount to nourish them properly. For the older animals, such as pigs, calves, hens, or colts, the skim milk contains the very things they need most. After animals get to a certain age they can use the starch which is found in corn, kafir, and other grains, to take the place of fat. The real young animal cannot do this because it requires the action of some special juices which are not found in the mouths or stomachs of calves or pigs until they are several weeks old.

Experienced dairymen have found that by being very careful and using good judgment they can raise just as thrifty calves by gradually replacing whole milk with skim milk after the calf is two or three weeks old as by feeding them the expensive whole milk longer. One of the tests of the successful dairyman is his ability to raise good calves on skim milk. The heifer calves must be grown and developed into good cows in order to build up the herd. If they are so poorly handled when young as to be stunted and unthrifty, they will never make good milk cows. The father of one of the members of the Dairy Club last year told us that his boy had made the first real success in feeding skim milk calves on their farm. He had a pure-bred calf, and he raised it so well that he was able to sell it for a good price when it was only a few months old. He made this success because he was more careful than they had ever been before in feeding calves. He owned this calf and he followed most closely the instructions given by those who had learned just how to feed skim milk calves so they would grow and develop properly.

Skim milk is fine for pigs, too, but is not so good for them if nothing else is fed with it. Corn is a good pig feed, too, but corn alone will not give good results. Corn and skim milk together make a fine combination. The corn lacks in the growing material and mineral matter to make bones, and the skim milk supplies these deficiencies. The largest and most profitable growth will be made if a pound of corn is fed to every three pounds of skim milk. A hundred pounds of skim milk is easily worth as much as a half bushel of corn when fed to pigs in the right proportion with other feeds. That would make it worth over a dollar a hundred pounds at the present price of corn. It is worth fully as much in actual money when fed to good dairy-bred calves. Skim milk is a fine feed for making hens lay, and will make the little chickens grow rapidly. Some poultrymen think it is worth at least \$1.50 a hundred pounds when it is properly fed.

As human food we often turn up our noses at skim milk, but the growing materials it contains are just as valuable in making boys and girls grow as they are in producing growth on pigs or calves. A hundred pounds of skim milk will make fifteen pounds of cottage cheese, and a pound of cottage cheese has as much food value as a pound of beef. We probably would not want to eat cottage cheese entirely in place of meat, but it can take the place of part of the meat we commonly eat, at least.

In the Dairy Club contest the production of your cow is based on the butter-

fat she produces, because that is the commercial product for which most dairy cows are primarily kept, but we do not want you to forget the by-product, skim milk. In many manufacturing lines the by-products can become a great source of profit. Learn how to feed skim milk so as to get all you can out of it. It will increase your profit, and by keeping a record of how you use it and make it bring in some money, you will have a chance to make it count in the contest in connection with the story you will write about your work at the end of the year.

A little later when more of the members will have calves to feed, we will tell you exactly how to get the best results in feeding skim milk to calves.

Cow Doing Well

I am sending you a picture of myself and my cow, Star Beauty. She is not doing as well since the flies are so bad, but she has been giving about the same amount of milk—from 38 to 41 and 42 pounds a day. She has a good clover pasture to run on.—**HENRY STIGLMIRE, Leavenworth County.**

The picture was a little out of focus and could not be used for a cut. Henry's cow is doing well for such hot weather as we have in July. Clover is a very fine feed for producing milk. Sometimes it causes bloat, and cows must be watched closely when they are on clover or alfalfa pasture. They should never be allowed to go on such pasture when they are very hungry. Usually there is a good deal less danger in pasturing clover in dry weather.

Another Heifer Calf

My cow was fresh July 1. She had a fine heifer calf which is growing very fast, and I am mighty proud of it. The flies are pretty bad, but my cow gives about 30 to 33 pounds of milk a day. I am not giving her any feed; all she gets is pasture. I did not send in the feed records for the two months, June and July, while she was dry, but all she got was pasture, which was one dollar a month.—**LESLIE LINVILLE, Winona.**

Leslie has a right to feel proud of his fine heifer calf. Every dairyman who is anxious to get a herd started appreciates having heifer calves to raise. He should have sent in his feed record blanks, even though his cow was not getting anything but pasture. We hope he will not let his cow suffer for feed while she is fresh. July is not a very good time to have a cow freshen, and it sometimes requires some special effort to keep them from falling off in milk too rapidly.

Cow Increasing in Milk

I certainly appreciate the clippings from KANSAS FARMER you sent me in your last letter. They contain some valuable information.

I am going to have a picture taken of my cow and calf as soon as possible. She is one of the cows that was shipped into this place from Wisconsin. She looks like a fine cow, but I do not think she is giving as much milk as she should. Of course there is time yet for her to gain. The first week I had her she gave 191 pounds, and the second week she gave 225.8, and seems to still be gaining a little each day.—**EMMA MAE LENHART, Hope, Kansas.**

Sometimes cows that have recently been shipped in from Wisconsin or some other state do not milk as well the first year as they do later. This is especially true if they happen to be rather thin in flesh. They also have to get accustomed to our climate and feeds. As Emma's cow is increasing in her milk flow, it looks as though she was responding to good care and feeding. It takes feed to make milk, and it is always important to study to see that the milk cow gets enough feed of the right kind. Sometimes when feeds are very high in price we have to figure closely in buying feeds in order to be sure that we are getting our money's worth in the results.

Volume 52 of the National Duroc Jersey Record is just out. This volume contains the pedigrees of males from No. 201501 to 210999; the pedigrees of females from 508700 to 529998, and other information of value to Duroc breeders.



Conserve Your Produce!

THE simplest and easiest manner for storing perishable products such as potatoes and other root crops, fruits, etc., is to build a concrete storage cellar. This year more than ever before it is imperative from the standpoint not only of the grower but of the country at large, that every farmer provide suitable storage facilities on the farm for fruits and vegetables.

\$700,000,000

Wasted Annually

That's the enormous amount in actual money that is wasted in the United States—foodstuffs, farm produce, etc. It is a conservative estimate. Thousands of dollars of waste in the potato crop alone can be saved by providing suitable storage. The tremendous annual loss in vegetables and fruits cannot continue now that the country is aroused to the importance of food conservation.

Concrete Storage Cellar

The advantage of a concrete storage cellar to the farmer is that the crop can be marketed when prices are right. To the nation it means the conservation of food that heretofore has been thrown on a glutted market at harvest time. Keep enough produce for home use and have a large quantity to market later when prices are higher and the country needs it. When stored in a concrete cellar apples and potatoes can be kept in good condition from one season's end to the beginning of the next. Now is the time to build a concrete storage cellar and no better material can be found than

Dewey Portland Cement

Go to the Dewey Dealer for Dewey Cement. This will insure a permanent structure that will pay dividends year in and year out. The saving realized the first year will more than pay the initial cost—the only cost of a concrete cellar. Use Dewey Cement in making all farm improvements.

See the Dewey Dealer and ask him for the bulletin on "Vegetable and Fruit Storage." If he hasn't it he will get it for you.



Haul Cows in Truck

We got our cows home all right and mine is doing well. We bought them from Mr. Browning, at Linwood. I went out to Ben Zoll's home July 15 and stayed all night. The truck we hired to haul our two cows home was at Basehor and we wanted to get an early start. We started at 3 o'clock Monday morning and got back to Ben's at 9:30 and to my home at 11:30 the same morning.

Ben lives closer to Linwood than I do. The cost of the trucking was \$21.25. Ben paid \$9.50 and I paid \$11.75, as I lived farther away. The total cost of my cow was \$169.

Mr. Chapman, the county agent, helped select the cows.

I got my cow too late to send a milk sample, but will send one next month.—**PAUL STUDDARD, Leavenworth County.**

Club Member Owns Sheep

I kept the cow I bought for the second year's Dairy Club work only about a month. I bought her on a guarantee and turned her back because she did not give quite five gallons of milk a day. She was a grade Holstein and I was to pay \$160 for her. I cannot find a cow around here anywhere that would be good enough for me to bother with, so I guess I cannot join the advanced class.

I think the Kansas Farmer Dairy Club is all right. I own two cows now and a nice little heifer calf. The cows bring me in a good income. I sell all my milk in town at eight cents a quart. I have fourteen head of sheep and they are paying, too. I got fifty-four cents a pound for some of my wool and fifty-eight cents a pound for some. I have some pigs, too.—**HOWARD WEIS, Thayer, Kansas.**

THE whys and wherefores of cream selling in Kansas are most minutely explained in Bulletin 216 of the Kansas Experiment Station, entitled "The Marketing of Kansas Butter." In preparing to write this bulletin, Theo. Macklin, who teaches rural economics at the Agricultural College, dug up his information from the very bottom. The facts and conclusions are based on a knowledge of the fundamental details of the business of producing and marketing Kansas butterfat. The pamphlet is too long and contains too many charts and tables to be reproduced. We hope every cream producer who may read this will write to the Director of the Experiment Station at Manhattan for a copy of this bulletin, if he does not already have one. The facts brought out in the bulletin are given in a summary as follows:

First—Dairy farming in Kansas has been, and continues to be, a side line on the average farm. Experience with whole milk creameries, local private creameries, and skimming station centralizers have proved that they were not adapted to Kansas conditions, and led to the establishment of cream station and direct shipper centralizers, which are well adapted to the conditions of Kansas dairy farming.

Third—The average farmer does not live close enough to favorable markets to make the market butter profitably except in so far as the stores follow the practice of paying the same price for both good and poor butter. This practice robs Peter to pay Paul. If one farmer obtains a higher price for his butter than it is worth, the loss is made up either by charging another farmer too high a price for the goods he buys, or else by underpaying the man who produces the good butter.

Fifth—The average creamery patron in the state sells less than one-quarter of a five-gallon can of cream per week. He finds it more profitable, therefore, to sell to the cream station at the cream station prices, than to ship direct and deduct from the delivered price the expense of shipping a partly filled can. It is the small amount of butterfat supplied by the average creamery patron which accounts for the fact that 2,020 cream stations deliver four-fifths of the butterfat from the farmer to the creamery.

Sixth—The prices paid for delivered butterfat by centralizers averaged above Elgin prices, and according to prevailing economic conditions, appear to be fair. The fact that butterfat prices in Kansas are somewhat lower than in some other states is because farmers choose to sell four-fifths of their butterfat through cream stations rather than to deliver the cream at their own expense. The difference between prices paid to farmers in Wisconsin and in Kansas, for example, was due to the difference in cost of getting butterfat from the farm to the creamery in the two states. Wisconsin farmers pay 1.5 cents to deliver their butterfat. Kansas farmers, because they

Seventh—More and better dairy cows would have the effect of reducing the cost of getting butterfat to the creameries, of lowering the cost of making and marketing butter by the creameries, and would result in higher net prices and greater profits to the farmer.

As we have repeatedly stated, every man producing cream has a direct interest in the regulations that surround the selling of oleomargarine. The oleo situation, as it now stands, is clearly set forth by the following statement from W. T. Creasy, secretary of the National Dairy Union:

"Congressman Sabath, of Missouri, on April 24 introduced a bill entitled, "A bill to change the name of oleomargarine to butterine, and to change the rate of tax on butterine; to protect the consumers, dealers, and manufacturers of all kinds of butterine against fraud; and to afford the Bureau of Internal Revenue more efficient means for the detection of fraud and the collection of the revenue." This bill contains fourteen sections, and repeals the Acts of August 2, 1886, the Act of October 1, 1890, and the Act of May 9, 1902. It taxes all oleomargarine, whether colored or not, one cent a pound. It requires that all butterine be put up in one-half, one, two, three, four, five and ten-pound bricks, prints, or rolls with the word 'Butterine' indented on the surface thereof, and that the container shall also be stamped with the word 'Butterine.' It permits all stuff previously known as oleomargarine (which means any kind of grease) to be mixed together with extracts, and certain mixtures, with cream-butter, or with milk. In short, this butterine can be made of anything and then colored to look like butter. It provides for a \$500 manufacturer's tax, a \$50 wholesaler's tax, and \$6 for a retailer. This bill has the earmarks of the beef trust, its object being not to cheapen the imitation butter, but to make it possible to get more money from the consumer for an inferior product.

"The Agricultural Committee of the National Research Council, which I understand is an adjunct to the National Defense Council, has a resolution asking that all restrictions be removed from oleomargarine on account of the scarcity of powdered skimmed milk. How ridiculous this reasoning, but it shows the activities of the beef trust and its allies.

"On account of the war every kind of scheme is being devised at our national capitol to further the interests of monopolies, under the pretext of conserving and increasing our food supply, while in reality their ultimate effect will be to do the reserve. We know it is a very busy time for the farmers, but they should keep their United States Senators and Congressmen informed that they will not stand for any such legislation. Write at once, because something is liable to turn up at any time, in fact we understand it is the intention of the beef trust to push their oleo legislation at this session, and may possibly try to add it to the revenue bill. Prompt action is needed. Write and wire."



How shrewd motorists save money

But today the roads are toured by millions of veterans. These veterans have learned how to test words. They know how to prove or disprove claims.

You know that a wrong-bodied oil raises your gas consumption. Instead of saving your oil pennies it eats up your gas dollars.

In recent years no oils have made such steady progress toward

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Why?

Because now-a-days the great bulk of lubricating oil is sold to automobile veterans—men who have learned that gasoline saving depends largely on thorough piston-ring seal—who know that the piston-ring seal depends solely on the *body and character* of their lubricating oil.

Because the veteran knows that an oil which uses up rapidly is not lubricating properly.

Because the veteran automobilists of today know that the higher price per gallon of Gargoyle Mobiloils means a lower cost per mile in operating expense.

Write for new 56-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and Complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Marine Engines.

In buying Gargoyle Mobiloids from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.



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A grade for each type of motor

Explanation: The four grades of Gargoyle Mobiloils, for gasoline motor lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloil that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

Model of	1917	1916	1915	1914	1913
CARS					
	Summer	Winter	Summer	Winter	Summer
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc
Allen (8 cy)	A	A	A	A	A
Apperson (Mod. 33-34-35)	Arc	Arc	Arc	Arc	Arc
Auburn (4 cy)	A	A	A	A	A
Briscoe (6 cy)	Arc	Arc	Arc	Arc	Arc
Buick (8 cy)	A	Arc	Arc	A	A
Cadillac	Arc	Arc	Arc	Arc	Arc
Casa (8 cy)	A	A	A	Arc	Arc
Chalmers (Mod. 6-40)	A	Arc	Arc	A	Arc
Chandler Six (Mod. 6-30)	Arc	A	A	Arc	Arc
Chevrolet	Arc	Arc	Arc	Arc	A
Cole (8 cy)	A	A	A	Arc	Arc
Darr (8 cy)	A	A	A	A	A
Dodge (Mod. C)	A	Arc	A	A	A
Detroit	Arc	Arc	Arc	A	A
Dodge (8 cy)	A	Arc	Arc	Arc	Arc
Dort	A	Arc	A	Arc	Arc
Empire (4 cy)	A	Arc	Arc	Arc	Arc
Federal (6 cy)	Arc	Arc	Arc	Arc	Arc
Ford	E	E	E	E	E
Franklin	A	E	A	E	A
Grant	A	A	Arc	Arc	Arc
Haynes	A	A	A	Arc	A
Hudson (12 cy)	A	A	A	A	A
Hudson (Super Six)	A	Arc	A	Arc	A
Humobile	A	Arc	A	A	A
I.H.C. (air)	A	A	B	A	B
I.H.C. (water) (2 cycle)	A	A	A	A	A
I.H.C. (water) (4 cycle)	A	A	Arc	A	A
Intervale	A	Arc	A	Arc	A
Jeffery	A	Arc	A	A	A
(6 Com)	A	A	A	A	A
King (8 cy)	A	A	A	Arc	Arc
(6 Com)	Arc	Arc	Arc	A	A
Kinsel Kar	A	Arc	A	Arc	A
(6 Com)	A	A	A	A	A
(Mod. 48)	A	A	A	A	A

Model of	1917	1916	1915	1914	1913
CARS	Summer	Winter	Summer	Winter	Summer
Kluel Kar. (12 cyl.)	A	A	A	A	A
Lexington	A	A	A	A	A
Loocomble	E	E	E	E	E
McFarlan	E	A	A	A	A
Morris	A	A	A	A	A
Maxwell	A	A	A	A	A
Mitchell	A	A	A	A	A
Mitchell (8 cyl.)	A	A	A	A	A
Moline	A	A	A	A	A
" Knight	A	A	A	A	A
Monroe	A	A	E	E	A
Moon (4 cyl.)	A	A	A	A	A
Morris	A	A	A	A	A
National	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A
Oakland	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A
Oldsmobile	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A
Overland	A	A	A	A	A
Packard	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A
" Com'l	A	A	A	A	A
Paige	A	A	A	A	A
" (6-36)	A	A	A	A	A
" (6-36 & 38)	A	A	A	A	A
Pathfinder	A	A	A	A	A
" (12 cyl.)	A	A	A	A	A
Peerless	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A
Pierce Arrow	A	A	A	A	A
Premier	A	A	A	A	A
Regal	A	A	A	A	A
" (8 cyl.)	A	A	A	A	A
Reo	A	A	A	A	A
Saxon	A	A	A	A	A
Stearns-Knight	A	B	B	B	A
" (8 cyl.)	A	A	A	A	A
Stephens	A	A	A	A	A
Studebaker	A	A	A	A	A
Stutz	A	A	A	A	A
Vellie (4 cyl.)	A	A	A	A	A
" (6 cyl.)	A	A	A	A	A
Alvacoast	A	A	A	A	A
White	A	A	A	A	A
" (16 valve)	A	A	A	A	A
Willys-Knight	A	B	B	A	A
Willys Six	A	A	A	A	A
Winton	A	A	A	A	A

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

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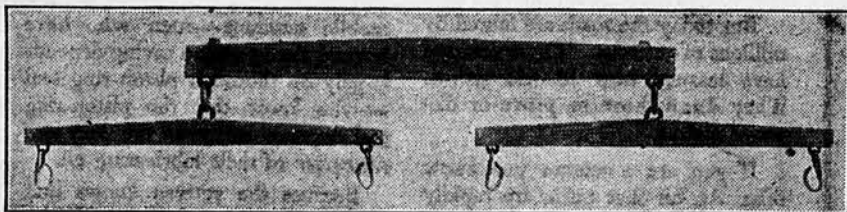
You Cannot Break Them

Here is one of the most practical doubletrees ever made for all ordinary work on the farm: Plowing, harrowing, lead team work, road work—in fact any work requiring a double-tree of medium weight and extra strength.

Fred Anderson, the inventor of the new celebrated Anderson Manure Loader and Scraper, has personally designed the Anderson Doubletree along scientific lines to develop the greatest amount of pulling strength possible, without excessive weight, and Mr. Anderson personally guarantees these doubletrees to stand the terrible strain of a steady pull of a team weighing up to 3,000 pounds.

This doubletree is constructed from carefully selected hardwood, thoroughly seasoned, painted with two coats of good paint. It measures 38 inches long, 3½ inches wide, and 1½ inches thick. The hooks and center irons are of a special design, and will never slip off the end or center of singletrees.

All iron parts are made of ½-inch round forged mild steel and strong enough to stand the strain of every use.



KANSAS FARMER takes pleasure in offering its readers a doubletree which cannot be equalled for less than \$1.35, absolutely free. For a short time, and while our supply lasts, we will send one pair of doubletrees complete, all charges prepaid, to anyone in Kansas sending us only \$2.00 for a three-years' subscription to KANSAS FARMER. Those living outside of Kansas must send 50 cents extra to defray transportation charges, or \$2.50 in all. This offer is open to all, new or renewal. If you are already paid in advance, we will extend your subscription. Don't delay, but order now, for this offer may not appear again.

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Circulation Dept. Topeka, Kansas

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We have several thousand subscriptions expiring in August. It would be a saving of much time to us and avoid missing copies by the subscriber if the renewal could reach us before the expiration. The best way to do is to send in \$2.00 when you renew and have your subscription paid three years in advance.

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Real Estate For Sale

10,000 ACRES of good grazing land, well watered, for \$3 to \$5. All crops good. No drouth, no hot winds. Grass for cattle and corn for hogs. Best country in the world to live and make money.

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Six farms to trade for Western Kansas land. Wheat farms at a bargain.
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WOULD YOU BUY

140 Acres, six miles from McAlester, on terms, for \$4,500, if we show you \$4,500 crop on farm? If so, write
SOUTHERN REALTY CO., McAlester, Okla.

To the beginner, the man who wishes only a little flock of sheep as a handy thing to consume some forage, keep the farm free from weeds and yield a tidy profit at the end of the year, I suggest a flock of forty ewes as being best adapted to his purpose, and, decently cared for, certain to return him a good profit.—JOSEPH E. WING.

You can help the nation and yourself by exercising every care in handling the product of your cows. Avoid loss and unnecessary waste by use of clean utensils and keeping the product in clean, cool places. A moment's attention by you may save the life of a child or a soldier.

Co-operative Marketing Pays

Experiences of Selling Organizations Prove Value of United Effort
By R. C. GANO

THE largest buyer of boxed fruits in the United States once called at the general office of the North Pacific Fruit Distributors, a co-operative marketing organization handling about one-quarter of the apple tonnage of the Pacific Northwest. Among other items this buyer wanted ten carloads of prunes. This buyer, spending two to three millions of dollars each year for boxed apples and other fruits, could well afford to pay a considerable sum each year for an accurate knowledge of crop and market conditions. In addition to his market knowledge he brought to his interview with the sales department of the Distributors an experience of twenty-five years in buying fruit. He knew what arguments to use to beat down the prices quoted him.

When he got around to the subject of prunes he began by stating that the price in New York was low and would go lower. This statement would have carried weight had the Distributors been unable to refute it. But they showed their visitor a telegram received that very day from New York, stating that the price of prunes was firm and would go higher. He could but smile on this point.

Then he came back to the contest of wits with a statement that the production in the Northwest was unusually large and therefore prices should be lower. In reply the Distributors referred to their minute book containing the confidential crop report made possible through the co-operation of the northwest prune growers. This showed the visitor again in error, as the crop outlook was below, not above, normal.

Then the buyer stated that other prune-growing sections had unusually large crops, and that in competition with large crops elsewhere the Distributors' price must be lowered. The sales manager quietly produced telegrams from

these other sections named and proved his visitor wrong for the third time.

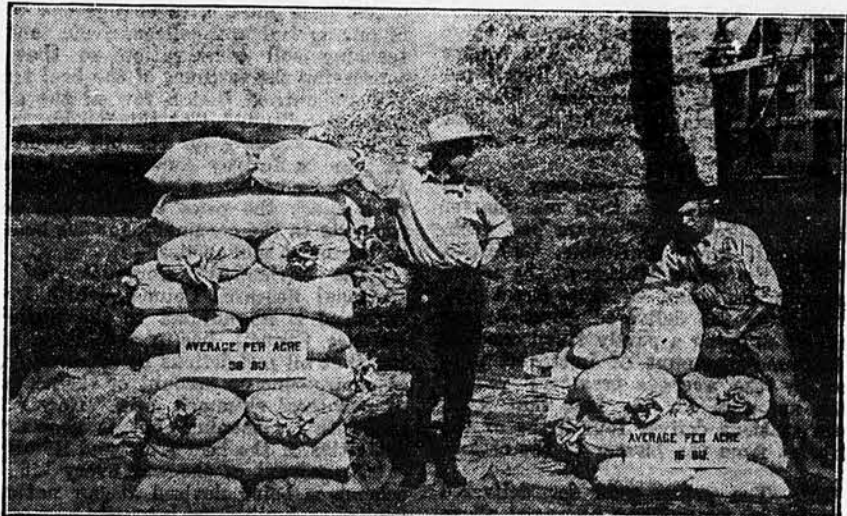
The buyer couldn't argue against cold facts. He immediately paid the Distributors' price, \$1,100 more than he had ten minutes earlier stated positively he would pay.

Knowledge is power, in selling as well as in producing crops. The North Pacific Fruit Distributors had spent in the season mentioned, for crop reports, more than \$17,000. It was this investment in knowledge which on the one deal mentioned paid them back over one-sixteenth of the investment. It is at once apparent that a single farmer, contracting to sell his crop, cannot possess such thorough and up-to-date market information. Only through co-operation can this valuable knowledge be purchased at a reasonable charge per grower.

Crop and market information is one of the most important things that farmers secure through co-operative marketing organizations. But there are benefits from co-operation in practically every branch of the farmer's activities. There are plenty of figures to prove how co-operation has paid actual dollars in growing and harvesting crops; in packing produce and transporting it to market; in selling and advertising, and in miscellaneous ways.

Space will not permit that illustrations be cited under each one of the ways mentioned, but the few which will be given will indicate the kind of figures that might be given for each one.

Another illustration of the value of market knowledge will not be amiss, for it demonstrates what many agriculturists do not realize—that co-operation can be made to pay right from the start. The experience in mind is that of the California prune growers, located for the most part in the Santa Clara Valley. Only two years ago, in the spring of 1915, these growers were unorganized.



SCENES from the wheat-growing movie, "Winning With Wheat," which is being shown in the picture houses of Kansas under the auspices of the Kansas Council of Defense and the Agricultural College. As a result of following better methods of seed bed preparation the young man wins in the contest between father and son.

In addition to having all the romance and thrills of the usual film, it contains some valuable lessons in wheat growing, presented in a most convincing manner. It is being shown without charge. Announcements of the dates are being made in the local papers.

Reports at that time that packers and other speculators were selling "futures" in the East at ruinously low prices, thinking they could buy still lower, of course, made the growers realize what to expect from the buyers. A mass meeting was called and a committee appointed to investigate the size of the crop.

This was merely a temporary expedient—a first step in co-operation, but it paid wonderfully. The committee learned that, contrary to the reports spread by the packers, the Santa Clara Valley crop would not be unusually large. The committee advised all growers to hold out for a five-cents-per-pound base. The relation of supply to demand was understood. The committee knew what it was talking about, for it had knowledge. Those growers who were bold enough to bank on the committee's findings held out for the five-cent price and secured it, or very close to it, and it was conservatively estimated that the mere first step of appointing a committee to investigate actually saved the industry, in the one season, half a million dollars. It taught the growers the lesson of co-operation, and they are today perfecting a most thorough marketing organization.

ECONOMY IN PICKING

An interesting example of economy due to co-operative picking of fruit is furnished in the experience of the California Fruit Growers' Exchange, the great organization of 8,000 citrus fruit growers which has for years been advertising Sunkist oranges and lemons. One would be apt to think the farmer himself could pick his own fruit about as cheaply as he could hire it done. Possibly he could, in some instances, but in the case of citrus fruits expert picking by trained gangs in the employ of the local associations has proved an important economy, and, incidentally, an economy that none foresaw at the beginning. This economy was pure "velvet" because it was just discovered accidentally, and co-operation was already paying.

It wasn't foreseen because no one knew a few years ago that decay of fruit in transit to market—which amounted in a single year back around 1910 to a loss of over a million dollars—was due to careless picking of the fruit. Everyone thought such decay was due to lack of icing and delays in transit. The truth was finally discovered, however, and the local associations took over the work of picking, organizing trained gangs of pickers under competent foremen. This has gradually eliminated all careless breaking of skins and bruising of fruit and has cut the decay loss down to almost nothing. One of the local associations which recently built a new and thoroughly up-to-date packing plant, has never had any record of decay in transit entered against it since its methods were thoroughly modernized and standardized.

The experience of this same organization may be cited in the matters of economy in packing and transportation.

The citrus fruits are graded and packed in modernly-equipped packing houses, with machinery and devices which insure careful and rapid packing. Standardization and rapidity have constituted one economy. Another great economy has been that secured in purchasing packing materials. Many of these materials are actually manufactured by the Exchange's own supply company. This company was organized by the Exchange to fight high prices on lumber and materials, and it now leases timber lands, operates mills, manufactures box materials, etc., practically at cost. It manufactures several million dollars' worth of supplies each year. Through these means the packing cost on both oranges and lemons has been nearly cut in half. Before the days of co-operation it cost sixty to seventy cents a box to pack oranges, and about one dollar a box for lemons. These costs have been reduced to approximately thirty-three cents and sixty cents respectively.

SAVING IN TRANSPORTATION

In transportation it is not difficult to understand the advantage so large an organization possesses in dealing with the railroads and in securing favorable legislation. The California Fruit Growers' Exchange in 1904 to 1912 secured reductions in orange, lemon and refrigeration rates that in that period totaled a saving of nearly five million dollars to the members of the Exchange. It also benefited those growers outside of the Exchange.

Instances of the value of co-operation when it comes to actual selling have been

given. The great economy secured in this department has not, however, been yet touched on. This economy will be grasped when it is stated that such a co-operative association as the California Walnut Growers' Association, in place of distributing its crop through a dozen or more big speculators in such a central market as Chicago, for instance, is now represented in Chicago by a single salaried sales representative who because of the smooth-running system in vogue can easily handle all carload orders originating in the Chicago district. Through its salaried or commissioned representatives, this association, handling about three-fourths of the most important walnut crop in the world, is in touch with every carload buyer of walnuts, and has eliminated the speculator, who formerly claimed the lion's share of the profits. An actual cash saving secured by this association due to its large scale marketing occurs in the commissions it pays to its representatives, which are around 1½ per cent on sales, whereas non-association growers are compelled to pay 2½ to 3 per cent to brokers.

ADVERTISING RESULTS IN ECONOMY

It is more difficult to show in figures a saving, when advertising is finally undertaken by an association, but that the California Fruit Growers' Exchange, which expends half a million dollars each year for advertising, has the lowest marketing cost known for an agricultural crop—around 3 per cent—is excellent evidence that advertising works out as an economy, in the long run. What advertising has actually done, in the case of Sunkist fruits, is to increase the demand at a wonderful rate, a necessity because production has increased at a wonderful rate. In twenty years or so California's citrus fruit crop has increased from 5,000 carloads annually to over 45,000 carloads. It was thought in 1895 that there was overproduction, but advertising has continually built up the demand until the country is now consuming nine times what was consumed twenty years ago.

In the case of the Florida Citrus Exchange, also an advertiser, a Tampa newspaper recently estimated that in the past few years Exchange growers of the state have averaged 25 cents a box higher for their oranges than have outside growers. As the publicity tax per box is only three cents, this is pretty conclusive evidence that it pays to have a brand and to advertise that it represents highest quality.

Incidental economies are secured by practically every department within the great associations, such as insurance, legal, supply, field organization, etc. And it is a fact that the possibilities in economy through co-operation have not been fully developed. Almost every year finds the larger associations undertaking some new service for their members which it has been figured can be performed more economically on a co-operative basis than individually.

IDEALS OF THE GRANGE

(Continued from Page One)

and they are a mighty fine lot of fellows, although there have been a few misfits. In the beginning they made some of the same mistakes made by institute workers and others who devoted themselves to the problems of production only. Today, however, the agricultural agent is taking up and helping in the solving of this greatest question before us.

No class of people under heaven can lift up the farmer. He must be lifted up through his own efforts. When he has accomplished this, the boys and girls will not be rushing off to the city because they are better paid there and have the means of living more comfortably. Let us as citizens, as farmers, do our full duty. When the history of this great country is written, and especially our agricultural history, I am sure that the historian when he pictures the increased comforts of the farm home will be honest enough to say that the greatest factor in bringing this about has been the Grange organization.

Control Lice and Mites

There is nothing that is more detrimental to the health and growth of young chicks than to let parasites gain a foothold in your flock. If you notice them becoming listless, their combs and wattles becoming pale in color and the birds losing in weight, we advise making an examination of such birds and also of



Moline-Monitor Grain Drill

With the original all-steel single disc furrow opener, ridges the ground—prevents light soil from blowing and exposing the seed. It is simple, strong, positive and accurate in its work.

Saves Seed—Increases Yield

Boot is placed low wholly within circle of the disc blade; drops seed in bottom of furrow before revolving discs allow dirt to fall in. Seed is deposited at even depth—none too shallow, none too deep. None of the seed is dragged to the surface—every grain grows. Ample clearance between plate and boot prevents clogging.

The Moline-Monitor single disc furrow opener is built almost entirely of steel; bearings are chilled, run in oil and are dust proof.

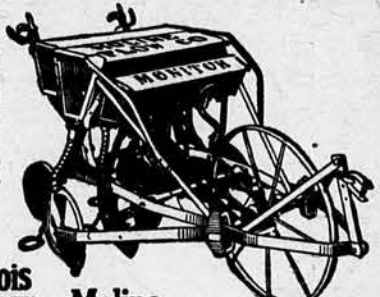
Moline-Monitor Grain Drill has many other good features: Steel construction gives light weight, strength and long life. Low frame gives a straight line of draft direct from furrow opener to the hame staples—makes light draft. Low hopper is easy to fill. Double disc furrow openers can be used in place of single discs when desired.

Ask your Moline Dealer about the Moline-Monitor Grain Drill, or write us for Illustrated Literature. Address Department 10

Moline Plow Company, Moline, Illinois

Manufacturers of:
Plows (all sizes)
Harrows
Planters (all sizes)
Cultivators
Listers
Stalk Cutters
Hay Loaders
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Potato Diggers
Moline-Universal Tractor
Rice Binders
Grain Drills
Line Sowers
Seeders
Corn Binders
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Reapers
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Wagons
Vehicles
Farm Trucks

For Over 50 Years The Mark of Good Implements



Moline-Monitor Five Disc Drill

is a one-horse drill, the ideal machine for seeding between corn rows. Enables you to make forage crop for fall use, or to insure quick rotation from corn to wheat. Does accurate work; easily adjustable for rows of different widths.

Get My New Patriotic Prices!

On Spreaders — Tractors — Engines — Separators

Find out and satisfy yourself how much you can save by getting your farm implements direct from Galloway—the maker. This direct dealing is actually buying at wholesale, and even less, and saves you 25% to 50% on everything you need on the farm—Spreaders, Tractors, Engines, Separators, Wagons, Implements, Vehicles. I'll tell you why you can save by direct buying in my big, free book. I'll also tell you where the extra money goes—the money you save by dealing direct with the manufacturer.

Write for My Free Book That Keeps the Prices Down

It's the greatest bargain book ever published, and will save my farmer friends thousands and thousands of dollars. Write me for the book today. A postal will do. Let this book be your buying guide and save you \$200 to \$500 on your summer purchases. Don't hesitate. Don't put it off—send tonight for my big money-saving book. Advantageous shipping points save you freight.

WM. GALLOWAY, Pres., WM. GALLOWAY CO., 217 GALLOWAY STATION, WATERLOO, IOWA



KANSAS FREE FAIR

TOPEKA, SEPT. 10-11-12-13-14-15

FREE THE GATES STAND OPEN. Everybody FREE

Welcome to the Third Big Free Fair

24 Harness and Running Races.
3 Concert Bands and Patriotic Chorus.
Mammoth Live Stock and Agricultural Exhibits.
Fighting Machines and Submarines.
Tractors in Operation.
A Solid Week of Instruction and Entertainment.
Auto Show. Art Exhibit.
Live Stock Judging and Parades Daily.

THE BIG
FREE
FAIR

World's Championship Tri-Cornered Match Auto Race for \$1,000.

30 Coney Island Shows.

Canning Club Demonstrations.

Lectures in People's Pavilion Daily.

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Big Display in Women's Building.

\$30,000 IN PREMIUMS ----- SIX BIG DAYS

Patriotic Night Spectacle — Siege of Verdun and Battle in the Skies

KATHERINE STINSON, CHAMPION GIRL FLYER

your houses and coops to see if you can discover evidences of either lice or mites. Chicken mites are one of the worst pests found in the poultry yard. The growth of the young chickens depends upon the digestion and assimilation of nourishing food. The blood carries this nourishment to the various portions of the body and, as long as mites live upon the body of the chick and remove the blood as fast

as it is made, there is little chance of growth. There is great danger of mites, especially in the warmer sections of the country. All coops and perches should be regularly examined and brushed with a solution of three to five parts of kerosene mixed with one part of crude carbolic acid or with some of the reliable commercial products which you see advertised.—T. E. QUISENBERRY.

Guard Against Cholera

PROTECT young swine from cholera by so arranging the breeding pens and hog houses that good drainage, sunlight, and fresh air will be insured. The young pigs are quite susceptible also to pneumonia and other diseases. If allowed to nest in a draft, they may contract disease. Their vitality will at any rate be lowered, making them more susceptible to cholera. Overfeeding either the mother or the young pigs, especially with fat-producing food, will also render the pigs more susceptible to disease.

Do not allow communication between your hog lot and the lots belonging to neighbors, as cholera germs may be carried easily on the shoes of visitors. Wagons that have been used to carry infected or dead hogs will infect corn and other feed and in this way disease may be brought to the farm. Frequent cleaning and burning of litter in the hog pens will prevent any latent infection from becoming active.

Hog pens, feeding troughs and buildings should be disinfected by regular use of a 3 per cent solution of cresol compound U. S. P. Hogs should be sprayed weekly with a 1½ per cent solution of cresol compound U. S. P.

- Do not put new stock—either hogs or cattle—with hogs already on the farm. Newly purchased hogs should be put into separate enclosures well separated from the herd already on the farm and kept under observation for three weeks. This is necessary, as stock cars, unloading chutes and pens are likely to be infected with hog cholera organisms.

Burn up all carcasses of dead cattle, horses, hogs, sheep, or dogs on the day they die. Do not allow chickens or hogs to have access to a dead carcass.

Stagnant ponds about the yards should be drained and thoroughly covered with lime. Where this cannot be done they should be fenced so the hogs cannot get to them. Infected ponds and wallows become a source of infection on the farm for years and little or nothing can be done until they are drained. When wallows exist near the drinking trough they should be plowed up and filled in after they have been drained and covered with air-slaked lime. The use of the sanitary hog wallow, made of cement, eliminates this source of infection.—DR. C. V. HOBBS, Kansas Agricultural College.

More Silo Truck Dates

Silos are being talked and built in West Central Kansas. The "cross country silo special," which is a truck being run co-operatively by the Agricultural College and the Fort Hays Experiment Station, is attracting the attention of the people of that section. The average daily attendance for the month has been 130 and the audiences have been very much interested in silos and silage. Interest is increasing as the campaign progresses, the average daily attendance for the past week having been 250.

Much of the corn in that section that has been damaged by the dry weather will be made into silage in order that its maximum feeding value may be realized. In some places there is 1915 straw of such poor quality that the stock will not eat it as straw and this is being mixed with the immature corn in the silo.

The four following Northwest Kansas points have been added to the schedule for the silo truck:

Thursday, August 23—10 A. M., Jaqua;
2 P. M. St. Francis; 8 P. M. Bird City.

Friday, August 24—10 A. M., McDonald; 2 P. M., Beaver View; 8 P. M., Char-

Saturday, August 25—10 A. M., Achilles; 2 P. M., Atwood; 8 P. M., Herndon.

Monday, August 27—10 A. M., Traer;
2 P. M., Oberlin; 8 P. M., Lund.

Tuesday, August 28—10 A. M., Jennings; 2 P. M. Norcross; 8 P. M. Igle.

Wednesday, August 29—10 A.M., Clay-

Thursday, August 30—10 A. M., Fair-

haven; 2 P. M., Norton; 8 P. M., Almena.

A quart of canned peaches or tomatoes on the shelf is worth a bushel rotting on the ground.

KANSAS FARMER, Topeka, Kansas.

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Address _____

Name

Address

Name

Address

Name _____

Address _____

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

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

Name _____

Post Office

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

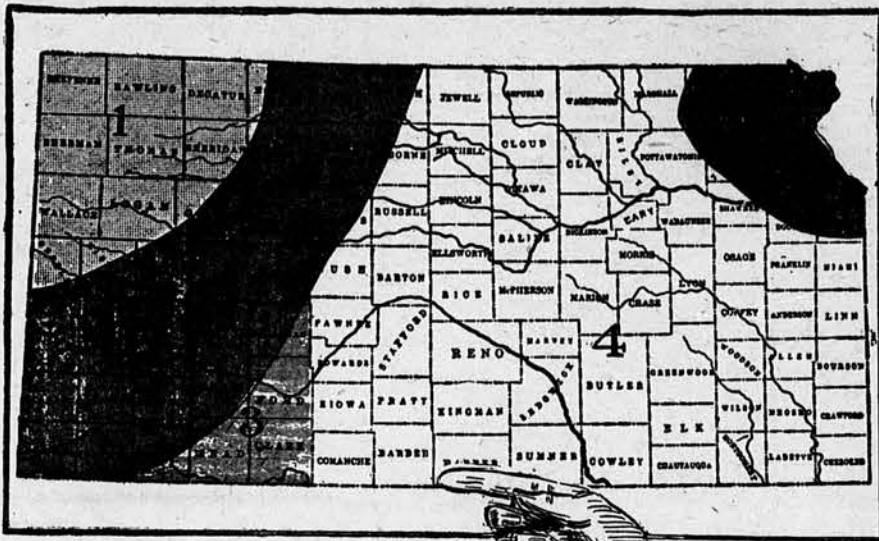
Reports Furnished by S. D. Flora, Meteorologist, Weather Bureau, Topeka

0.60 136	0.70 136	0.073 136	0.127 202	0.77 202	0.32 202	0.12 202	0.91 202	0.36 202	1.00 202	0.68 202	0.54 202	0.64 202
0.96 270	2.70 270	1.06 270	1.27 270	1.65 270	0.46 270	0.57 270	0.60 270	0.83 270	0.29 270	0.56 270	1.96 270	1.04 270
1.37 311	3.11 311	1.78 311	1.31 311	1.46 311	1.49 311	0.66 311	1.47 311	0.87 311	0.96 311	0.87 311	0.87 311	0.87 311
2.84 438	1.38 438	2.37 438	2.05 438	2.40 438	2.62 438	2.10 438	1.61 438	1.04 438	0.96 438	1.23 438	0.87 438	0.87 438
2.42 537	2.42 537	2.23 537	1.44 537	2.61 537	2.61 537	2.10 537	1.03 537	0.35 537	0.38 537	1.60 537	0.87 537	0.87 537
1.54 737	1.73 737	2.37 737	2.76 737	2.94 737	2.94 737	2.95 737	0.31 737	0.87 737	0.92 737	1.27 737	1.03 737	1.03 737
1.83 834	2.58 834	2.72 834	1.53 834	2.60 834	2.62 834	1.34 834	1.76 834	1.66 834	2.12 834	4.23 834	2.06 834	2.06 834

THE rainfall was below normal and inadequate, even for present needs, in almost every county in Kansas this month. In the few counties where good local rains fell, winds from adjoining sections soon dried out the ground so that extra moisture was of but short duration. The month was ideal for harvesting and threshing, but it was very unfavorable for corn, which was already suffering from the effect of the dry weather of June and was badly damaged by the high temperatures, excessive sunshine and hot winds the last ten days of July. Sorghums stood the dry hot weather better, but pastures were burned brown, alfalfa stopped growing and gardens and truck patches were burned out, except where irrigated.

A CROP THAT IS SURE!

THERE IS ONE FOR THE GREAT SOUTHWEST---IT IS THE CROP OF GRAIN SORGHUMS



MR. BORMAN POINTS OUT—

- AREA 1—For grain, plant dwarf milo, feterita, Freed Sorgo.
- AREA 2—Dwarf black-hulled kafir, white-hulled kafir, feterita.
- AREA 3—Standard black-hulled kafir and other grain sorghums.
- AREA 4—Standard black-hulled kafir is the best variety.
- AREA 5—Here corn outyields kafir. Use sorghums for forage only.



For many years, planted in patches, without the care of corn and wheat, the Sorghums have produced grain and forage year after year in *every Sorghum Belt locality*. This then is a *sure crop*, and sure crops means regular, dependable returns for labor, time and investment. It means a permanent prosperity for whoever rightly farms Sorghums in the Sorghum Belt.

WHY NOT LEARN ALL ABOUT SORGHUM AND KAFIR GROWING AND GROW IT IN A WAY THAT WILL ASSURE YOU ALL THE FEED YOU NEED

After several years' study and investigation of Sorghum, Kafir, Feterita, Milo and all similar grains, known as the Sorghums, Mr. T. A. Borman, Editor of KANSAS FARMER, wrote a most interesting and valuable book on SORGHUMS, SURE FEED CROPS. This book shows how Kafir, Milo and Cane fed to live stock of all kinds WILL INCREASE YOUR FARM CASH AND FEED INCOME.

It is a book not only of value to Sorghum Growers, but is almost equally valuable to every farmer in the Southwest whether he grows Sorghums or other crops. It contains precipitation maps, corn area map, frost date map, map showing number of days in growing season in different sections of Kansas, altitude map, precipitation map, and length of growing season for the entire Southwest.

It discusses every phase of Sorghum farming, selecting seed, planting, cultivation, types, SECTIONAL GROWING SEASON, effect on land, best methods of planting, feeding, handling and hundreds of other important things that have never heretofore been put into book form.

For 12 years in Kansas, Kafir has been 23 per cent more valuable than corn. The average acre value of Kafir in Kansas for a period of 13 years, is \$11.41. For 12 years the Kafir average acre value was \$2.12 greater than that of corn.

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

It is printed on a fine quality of book paper; printed in large, clear type, and is full of pictures. It is neatly and substantially bound in cloth, contains 310 pages, and will be a valuable addition to any library.

The price of the book and a year's subscription to KANSAS FARMER, new or renewal, is \$1.50. To order, just write your name and address on the coupon and attach your personal check, draft or money order. Send all orders to KANSAS FARMER, TOPEKA, KANSAS.

What They Say About This Book

"It is a practical work, for practical farmers, by a practical man."
—J. C. MOHLER, Secretary Kansas State Board of Agriculture.

"It is the most practical, up-to-date, comprehensive and helpful book of its kind."—F. A. MITCHELL, Berumda Stock Farm, Chandler, Okla.

"I am certain that it is a valuable contribution to the agricultural interests of Kansas."—OTIS L. BENTON, Farmer and Banker, Oberlin, Kan.

"I have found it very interesting and full of valuable information. It will prove a helpful guide to any farmer in the Plains country."—GEORGE BISHOP, Farmer, Cordell, Okla.

"It is thoroughly readable and a sane discussion of the subject. It is sure to prove of great value to farmers as well as to the student. It is a distinctly valuable addition to the agricultural literature of the country."—W. M. JARDINE, Director Kansas Agricultural Experiment Station.

"It is the most practical, the most thorough and the most readable book written on forage crops."—H. M. COTTRELL, Agriculturist, Memphis Bureau of Farm Development; former Agricultural Commissioner of the Rock Island Lines.

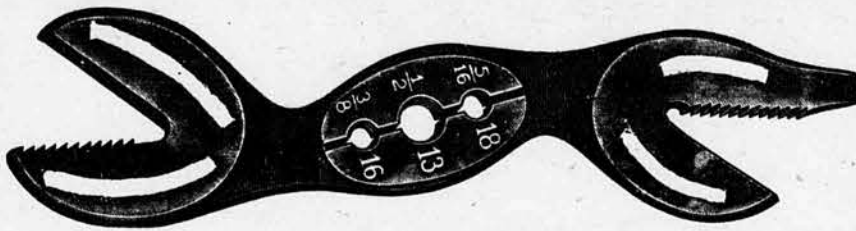
KANSAS FARMER COMPANY, 625 Jackson Street, Topeka, Kansas
Gentlemen:—I enclose herewith \$1.50, for which please send KANSAS FARMER one year and a copy of Mr. Borman's Book on Sorghums, postpaid.

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ALLIGATOR WRENCH AND HANDY TOOL FREE



The Alligator Wrench requires no adjustment; simple; always ready for use; never slips. Works in closer quarters than any other wrench. It is light, strong, compact. Easily carried in the pocket.

THREE DIES FOR CUTTING or cleaning threads in bolts used on farm machinery. It is drop-forged from the best steel, scientifically tempered, nothing to get out of order.

OUR SPECIAL FREE OFFER We will send the handy Alligator Wrench free and postpaid to all who send \$1.00 for a one-year subscription to Kansas Farmer, and 15 cents extra to pay packing and postage—\$1.15 in all. Address
KANSAS FARMER --:-- **TOPEKA, KANSAS**

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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.

THOUSANDS GOVERNMENT JOBS NOW open to men-women. \$100 month. Common education sufficient. Vacations. Short hours. Rapid promotion. Write immediately for list of positions. Franklin Institute, Dept. F-82, Rochester, N. Y.

CATTLE.

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

FOR SALE—THREE REGISTERED Shorthorn bulls, six to eighteen months; five yearling Shropshire rams. Adam Andrew, Girard, Kansas.

FOR SALE—TWO REGISTERED HOLSTEIN cows and heifer calf, nicely marked. Cows bred for December and February. W. T. Fitch, Minneapolis, Kansas.

HIGH GRADE CALVES—HOLSTEINS, Shorthorns, Guernseys. Good ones, only \$15 to \$35, crated to express. Rates furnished. Paul Johnson, South St. Paul, Minn.

FOR SALE—ELEVEN HEAD OF GRADE Holstein cows, five to freshen soon; six giving milk, three heifers. One registered Holstein bull, Kansas State Agricultural College breeding. R. W. Hays, Eureka, Kansas.

FOR SALE—TEN EXTRA LARGE GRADE Jersey cows, heavy milkers. Freshen November to March. Five yearling heifers. One registered bull. Parcels, Hiawatha, Kansas.

FOR SALE—VERY CHOICE HIGH-grade 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.

THE STRAY LIST.

TAKEN UP—BY MARTIN GRUEMCKEN, in Sand Creek Township, Meade County, Kansas, about the 12th of October, 1916, two steers, coming twos, red with white faces, branded I G on right hip. Worth about \$70. W. W. Pressly, County Clerk, Meade, Kan.

DOGS.

TRAINED RABBIT HOUNDS, FOX hounds, coon, opossum, skunk dogs, setters, pointers, ferrets. List free. Violet Hill Kennels, Hanover, Pa.

COLLIE PUPS FROM GENUINE STOCK dogs that drive from the heel. E. L. Dolan, Route 2, Platte City, Missouri.

TRAINED BEAGLES, RABBIT HOUNDS, foxhounds, coon, opossum, skunk dogs, setters, pointers, house, farm dogs. Ferrets. Catalog 10c. Brown's Kennels, York, Pa.

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

WANTED

WANTED—TO HEAR FROM OWNER OF good farm for sale. State cash price, full description. D. F. Bush, Minneapolis, Minn.

WANTED—SECOND HAND CLIMAX ENsilage cutter. American Silo Supply Company, Kansas City, Missouri.

WANTED—TO HEAR FROM OWNER OF farm or unimproved land for sale. O. K. Hawley, Baldwin, Wisconsin.

SEEDS

SEED RYE AND WHEAT. LAWDALE Seed Farm, Hiawatha, Kansas.

FOR SALE—ALFALFA SEED FROM Northwest Kansas, 95% pure, good germination, \$5.50 per bushel. Best bags, 40c each extra. Geo. Bowman, Logan, Kansas.

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.

HORSES AND MULES.

IMPORTED PERCHERON STALLION, black, sure. Good Jack, black with mealy points. Quick and sure. Priced right. W. F. Teague, Collier, Kansas.

MISCELLANEOUS.

1,024 YEARS AMERICAN HISTORY, 80c postpaid. Elias Felton, Hudson, Kansas.

TWO OHIO ENSILAGE CUTTERS, almost as good as new. Will sell or trade. Nos. 11 and 17 with 36 feet of blower pipe with each. B. F. Erwin, Fairfax, Missouri.

AUTO DIMMERS—THE STATE LAW requires every auto owner to use them. Send 75 cents in silver, name and model of car, and receive prepaid one set. Webb Bros., Protection, Kansas.

POULTRY.

WHITE ROCK EGGS, \$4 PER HUNDRED. Nora Lamaster, Hallowell, Kansas.

ROSE COMB BROWN LEGHORN COCK-erels, \$1 each during August. Mrs. John Holzhey, Bendena, Kansas.

PURE-BRED SINGLE COMB BROWN Leghorn spring cockerels, 75 cents each. Philip Zimmerman, Hays City, Kansas.

FIVE LARGE FLOCKS UNDER ONE sale management, R. C. Reds, Barred Rocks, Silver Wyandottes, White Wyandottes and White Leghorns, all on separate farms and specially bred by experts. Prize winners in all breeds. Eggs, \$5 per hundred, \$1.50 per setting. Order from ad. Address E. H. Hartenberger, Route 4, Box 1, Newton, Kan.

STRAW WANTED.

WANTED—FIFTY TONS BALED OATS straw. Shimer & Son, Topeka. Phones 471 and 1302.

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HONEY—NEW CROP. SEND FOR PRICE list. Bert W. Hopper, Rocky Ford, Colo.

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EXPERIENCED FARMER AND STOCK-man wants job on farm with everything furnished, as manager or on shares. Address Box 52, Jetmore, Kansas. M. R. A.

Ross & Vincent, of Sterling, Kansas, have announced November 1st as the date of their annual sale of Poland Chinas. This firm owns one of the good herds of Poland in Kansas and will catalog a choice offering for their November 6 sale.

We have just received Volume 35 of the Holstein-Friesian Herd Book. This volume contains the pedigrees of bulls from No. 172520 to 187553, and cows from 307055 to 333561. The volume also contains a lot of information of value to Holstein breeders or anyone interested in Holsteins.

J. O. Southard, the well known Hereford cattle breeder of Comiskey, Kansas, recently sold a choice Hereford show heifer to go to Alberta, Canada. This heifer, Lauretta Monarch, is by Monarch, the great bull in service in the Southard herd. Her dam is Ruth by Bonita Bon Ton by Theodore and out of Daisette, one of the producing daughters of Beau Brummel.



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.

No man has any more right to go about unhappy than he has to go about ill-bred. He owes it to himself, to his friends, to society, and to the community in general, to live up to his best spiritual possibilities, not only now and then, once or twice a year, or once in a season, but every day and every hour.—LILLIAN WHITING.

Early Training

A great educator in speaking of the early training of children once said: "No unskilled hand should be allowed to play upon an instrument in which the tones remain forever in the strings." Every conscientious mother feels the need of all the skill it is possible to acquire in meeting this greatest of all responsibilities.

Probably no woman is better qualified to speak with authority on this subject than Mrs. Max West, of the Children's Bureau of the United States Department of Labor. Mrs. West is a woman of university training and experience in Government research and is herself the mother of a family of young children. The following is an extract from her bulletin on "Infant Care," which may be obtained on request from the United States Department of Labor at Washington, D. C. This bulletin was prepared after careful study of the standard literature on the hygiene of infancy and consultation with physicians, nurses, and many mothers. It is very helpful and practical and should be in the hands of every mother.

Mrs. West says: "Harsh punishment has no place in the proper upbringing of the baby. A baby knows nothing of right or wrong, but follows his natural inclinations. If these lead him in the wrong direction the mother must be at hand to guide him in another and better one and to divert his eager interest and his energy into wholesome and normal directions. This is the golden rule in the training of babies, and one which applies to the training of children of all ages. Many parents conceive that their whole duty is to thwart and forbid, enforcing their prohibitions with penalties of varying degrees of severity, forgetting that they are dealing with a sensitive being endowed with all the desires, inclinations, and tendencies that they themselves have, and that if these natural feelings are continually suppressed and thwarted they are sure to seek and find some outlet for themselves. A child who is often punished may be so dominated by fear of his parents that, the natural expression of his vital interests being denied him, he becomes sullen and morose as he grows older.

"The training in the use of individual judgment can be begun even in infancy; a child should early be taught to choose certain paths of action for himself; and if he is continually and absolutely forbidden to do this or that he is sometimes seriously handicapped later, because he does not know how to use his own reasoning faculties in making these choices. On the other hand, obedience is one of the most necessary lessons for children to learn. A wise mother will not abuse her privilege in this respect by a too exacting practice. For the most part she can exert her control otherwise than by commands, and if she does so her authority when exercised will have greater force and instant obedience will be more readily given.

"Most of the naughtiness of infancy can be traced to physical causes. Babies who are fussy, restless, and fretful are usually either uncomfortable in some way because they have not been properly fed and taken care of, are sick or ailing, or have been indulged too much. On the other hand, babies who are properly fed, who are kept clean and have plenty of sleep and fresh air, and who have been trained in regular habits of life, have no cause for being 'bad' and are therefore 'good.'

"It must not be forgotten that the period of infancy is a period of education often of greater consequence than

any other two years of life. Not only are all the organs and functions given their primary education, but the faculties of the mind as well receive those initial impulses that determine very largely their direction and efficiency through life. The first nervous impulse which passes through the baby's eyes, ears, fingers, or mouth to the tender brain makes a pathway for itself; the next time another impulse travels over the same path it deepens the impression of the first. It is because the brain is so sensitive to these impressions in childhood that we remember throughout life things that have happened in our early years while nearer events are entirely forgotten. If, therefore, these early stimuli are sent in orderly fashion, the habits thus established and also the tendency to form such habits will persist throughout life."

Food Value of Bananas

Much has been written recently about the food value of bananas. Instead of being merely something that is comparatively cheap that can be used as "filling" for hungry children, as many now regard the banana, it has a high food value under certain conditions.

It should be understood, however, that the banana that is green in color, or even yellow, is not ripe enough to be eaten raw. If eaten before ripe, the banana is as indigestible as is a green apple, a green peach, or any other unripe fruit. The green banana contains an excess of starch which is turned into soluble sugar during the ripening process. The skins of bananas that are to be eaten raw should be a deep yellow shade with black spots on them, and those having skins that have become dark over the entire surface are most easily digested, provided the fruit is still firm.

Mary Swartz Rose, assistant professor in the department of nutrition of the teachers' college at Columbia University, gives bananas this value:

"Bananas may be regarded as a staple fresh fruit, high in fuel value, low in price, and easy to prepare. They are often cheapest when at their best, when the skins have darkened and the fruit is soft, though still firm. Digestive difficulties usually arise from eating them too green or too fast. As they ripen, considerable starch is changed to sugar, so they have a higher flavor as well as greater digestibility when fully ripened. Baking ripe bananas in the skin, if properly done, produces a more succulent food of fine flavor. They must be quickly baked till soft and the juice begins to flow, but no longer, or the juice all oozes out and they become tough and dark and lose much of their flavor. Bananas baked before the skins darken will never be as palatable as the fully ripened ones, though they are more digestible than if eaten raw. Unripe bananas are best baked without the skins and basted with a syrup. These may be used as a dessert, while those baked in the skins may take the place of a vegetable in the menu. Bananas can be mashed and stewed with a little water, flavored with lemon juice and sugar, making a palatable sauce."

This simple recipe for baked bananas is worth a trial: Fill a shallow dish with bananas peeled and cut in halves lengthwise and crosswise. Allow one level tablespoonful sugar, one teaspoonful melted butter, a few grains of salt, one teaspoonful lemon juice and two tablespoonfuls water to each banana. Baste frequently with the syrup and bake slowly half an hour, or until bananas are red and syrup thick. Serve hot.

Storing Dried Products

Fruits and vegetables dried in the open are liable to be attacked by moths whole drying. After they have been stored a short time, tiny worms hatch from the eggs laid by the moths. The use of a covered tray in drying affords entire protection from moths, and prod-

ucts dried in trays can be kept without injury if they are promptly placed in moth-proof containers. As an additional precaution they may be heated before being stored, a temperature of 140 degrees Fahrenheit being maintained long enough to allow the heat to penetrate throughout. This will sterilize the material if already infested. In drying by artificial heat the process itself will ordinarily sterilize the product, but after drying it should be stored immediately to prevent infestation.

Although not necessary, tin cans or glass jars make good containers for storing dried fruits and vegetables. Pasteboard with tight covers, stout paper bags, and patented paraffin paper cartons also are well adapted for the purpose when protected from rodents. As paper bags are inexpensive and easily obtained, they should be used extensively. After the bags have been filled, carefully close the opening by twisting the top tightly, then fold it over and tie with a string. If a further precaution against spoilage is thought necessary the bag can be coated with paraffin by painting it with a brush which has been dipped into melted paraffin. Another precaution may be taken by placing the small bags in a tin container with a tightly-fitting cover, such as an ordi-

nary lard can or pail. All bags should bear a label indicating their contents. Dried products should be stored in a cool, dry, well ventilated place.

It is best to put only a small amount in each receptacle, just enough for a few meals, so that it will not be necessary to open more than can be consumed in a short time. The use of the small container also makes it more difficult for insects to spoil large quantities of the dried product.

If fruits or vegetables are packed in tight containers immediately after being dried thoroughly, they will remain just as brittle as when taken from the drier. If, however, they are not thoroughly dried, there will be a tendency for them to "sweat" and mold. For this reason they should be examined after two or three days' storage and if they seem damp, should be taken from the containers and dried more completely.

Need Trained Men and Women

Because of the war upon which we are now entering, many young people are uncertain as to what to do. U. S. Commissioner of Education P. P. Claxton gave the following advice in a circular sent out from his department:

"If the war should be long and severe,

FASHION DEPARTMENT—ALL PATTERNS TEN CENTS

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



No. 8315—Boys' Rompers: Cut in sizes 2, 4 and 6 years. A new style of rompers that suggests the Oliver Twist suits is given in No. 8315. The waist is made with a yoke which is only in front, the back having two tucks to hold the interest. The rest of the waist in front is smocked to match the color of the trousers. The straight trousers button to the waist. No. 8304—Ladies' Waist: Cut in sizes 36 to 42 inches bust measure. This waist is as plain and practical as anyone could desire. The large pointed collar is the most interesting part of the whole waist, for it looks not unlike a Puritan 'kerchief. The waist fastens at the center front with three large buttons. No. 8313—Girls' Dress: Cut in sizes 6, 8, 10 and 12 years. The chief claim for attention to this dress is the large shawl collar which extends down as far as the belt. The waist has a broad tuck at the shoulders in front, which is stitched for a short distance and then pressed in position the rest of the way. The skirt is a straight one-piece model. No. 8316—Ladies' Dress: Cut in sizes 34 to 42 inches bust measure. The waist of this dress has the Duchess closing which does not overlap. A very large, pointed collar is the simple but effective means of decorating the waist. The fronts of the waist are gathered to the back, which extends over in shallow yoke effect. The skirt is in one piece, straight at the lower edge, and gathered all around to the slightly raised waist line. No. 8285—Ladies' Skirt: Cut in sizes 24 to 34 inches waist measure. This is a style which is becoming to the majority of women, and seems to retain its popularity through one season after another. A broad tuck at center front has big buttons and buttonholes as a trimming feature. The front goes fit smoothly, and the back goes gathered at the waist line. No. 8314—Ladies' Apron: Cut in sizes 36, 40 and 44 inches bust measure. This practical apron, which may be slipped on over any dress for protection, will be hailed with joy by the woman who keeps the domestic machinery in running order. The front and back are broad panels, which are connected by rather wide straps over the shoulders. The side sections are slightly circular and do not run all the way to the waist line, but end at the pockets.

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there will be great need in its later days for many young men and women of scientific knowledge, training, and skill; and it may then be much more difficult than it is now to support our schools, to spare our children and youth from other service and to permit them to attend school. Therefore, no school should close its doors now or shorten its term unnecessarily. All young men and women in college should remain and use their time to the very best advantage.

"When the war is over, whether within a few months or after many years, there will be such demands upon this country for men and women of scientific knowledge, technical skill, and general culture as have never before come to any country.

"Russia and China are awakening to new life and are on the eve of great industrial development. They will ask of us steel, engines, and cars for railroads, agricultural implements, and machinery for industrial plants. They will also ask for men to install these and to direct much of their development in every line.

"Our own trained men and women should be able and ready to render every possible assistance.

"Therefore, a right conception of patriotism should induce all students who cannot render some immediate service of great value to remain in college, concentrate their energies on their college work, and thus be all the more ready and fit when their services may be needed either for war or for the important work of reconstruction and development in our own and other countries when the war shall have ended.

"All young men below the age of liability to selective draft and those not recommended for special service should be urged to remain and take full advantage of the opportunities offered by the colleges, universities, and technical schools, to the end that they may be able to render the most effective service in the later years of the war and the times of need that will follow. Practically all women students should remain, and all boys and girls graduating from high schools should be urged to enter college, technical school or normal school. The total number of students in these schools should be increased rather than diminished.

"No college, university or technical school that can avoid it should permit its faculty or student body to be scattered or its energy to be dissipated. All should redouble their energies and con-

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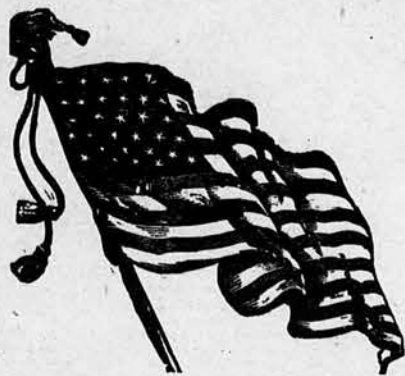
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concentrate them on those things that will be of most service during the progress of the war and which will prepare their students for the most effective service of the country and of the world when the war is over.

"The desire to render immediate service is praiseworthy, and the spirit which prompts it should be fostered, but it is effective service that finally counts.

Patriots and Loyal Citizens Will Want to Show Their Colors



"Your Flag and My Flag"

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Mites on Poultry

POULTRY raisers are all too familiar with the common red or gray mite which infests poultry houses. In general those who are making a specialty of poultry raising have comparatively little trouble with mites, or at least they keep them reduced to a point where they are of little importance. On the other hand, farmers and others who raise poultry as an incident to other operations frequently find their chicken houses overrun by mites. The attack of this blood-sucking mite is of an insidious nature which does not readily draw attention to its presence, and often the poultryman is not aware of an infestation until he is attracted to it by the irritation produced by mites on his own body through coming in contact with the infested coops. The presence of the pest may be determined readily by the detection of small areas on the boards speckled with black and white as though dusted with salt and pepper. This is the excrement of the mites, which are hidden in adjacent cracks or rough places. Most careful examination will reveal masses of mites in hiding, together with their eggs and the silvery skin cast by the young. In moderately infested poultry houses the injury to the fowls is not very apparent, but the constant blood loss and irritation are shown by decreased egg production and the poor condition of the flesh of fowls. In heavily infested coops it is not unusual for the chickens to become droopy and weak, with pale comb and wattles. Sitting hens desert their nests and thus ruin the eggs or, as is often the case, they are found dead on the nest, being killed outright by the attack of thousands of mites. In extreme cases a considerable percentage of the fowls succumb, even though not sitting, and all are so weakened as to be very susceptible to various diseases.

While the species sometimes become very numerous in the chicken houses in the northern part of the United States, the shorter breeding season there usually makes it of less importance than in the South where breeding continues throughout the year with little or no interruption. Although many assert that dampness has much to do with the abundance of the chicken mite, experience has shown that it occurs in rather greater numbers in the semi-arid and arid regions of the Southwest than in the more humid parts of the South.

Blood is absolutely essential for the development of this mite in all stages. The mite feeds almost entirely at night, except that it often feeds on hens on nests.

Chickens may carry a few mites (sometimes a hundred or more) in their feathers during the day following a night spent in infested quarters, but most of these leave the host during the following night. In some cases mites may remain on chickens during three days and nights, but nearly all become engorged and leave them by the third night.

Within twelve to forty-eight hours after receiving a meal of blood the mature female deposits from three to seven pearly white and elliptical eggs, laid singly in the cracks in which the adults are hiding. The operation of feeding and depositing is repeated as many as eight times, and from twenty-five to thirty-five eggs in all are deposited.

In summer the eggs hatch in about two days, and one to two days later, without feeding, the larvae shed their skins and become nymphs. With a very short rest these light-colored nymphs engorge with blood, secrete themselves, and molt their skins the second time thirty to forty-eight hours after having fed. These mites of the second nymphal stage soon engorge again, shedding their skins one to two days later and becoming adults.

Thus the chicken mite reproduces very rapidly, the complete life cycle from egg to adult requiring not more than seven days.

The weather is never too hot for this mite to thrive, and development is most rapid in midsummer. In the Southern States the mites are not entirely dormant during the winter, but feed and

develop when the temperature is not low. This is also true in the North in chicken houses that are heated. Where some development takes place throughout the year, and where a complete generation of mites is developed in a week's time, hordes of mites will be present in a poultry house within a comparatively short time if something is not done to destroy them.

It is probable that in a poultry house once infested at least four months and probably five will be required before all of the mites will starve if the chickens are removed from the house. In tests made by the writers some mites were still alive after a period of 113 days, and since these individuals were collected from an infested house it is not unlikely that they had matured some time previously. The tests indicate that where the mites are supplied with a certain amount of moisture they will live longer than when kept under very dry conditions. This may account, in part at least, for the idea that mites are worse in damp and badly ventilated chicken houses.

Chicken mites do not feed to any great extent upon other hosts when chickens are at hand. They are carried about chiefly by the interchange of poultry and in crates and boxes in which fowls are shipped. No doubt clean premises sometimes are infested by mites carried on the clothing of people going from one chicken yard to another.

Owing to the fact that mites feed during the night and secrete themselves in cracks and crevices during the day, their presence very often is overlooked until a very heavy infestation has developed. In such cases they should be attacked energetically. Although not hard to kill, the greatest obstacle is the difficulty of reaching them in their hiding places. Dust baths will not control them, as at most only the few which remain on the chickens during the daytime will be destroyed.

The first step necessary to destroy the mites is to get rid of the hiding places so far as possible. The roosts should be taken down and all unnecessary boards and boxes removed. In heavily infested houses the mites are to be found in all parts of the building, including the roof. Where they are less numerous the infestations usually are confined to the roosts and nests and the walls immediately adjacent. For small coops a hand atomizer will suffice for applying insecticides as sprays, but for larger houses a bucket pump, knapsack sprayer, or barrel pump is desirable. A rather coarse spray should be applied from all angles and thoroughly driven into the cracks. The floor also should be treated, as many mites fall to the floor when the roosts are being removed.

In tests conducted during the last two years a considerable number of materials used as sprays have proved effective. One of the so-called wood preservers was found immediately effective and its killing or repelling power lasts for months. As this material is rather expensive (about \$1 per gallon) and is too heavy to spray well, it is advisable to reduce it with equal parts of kerosene.

Crude petroleum is almost as effective, retains its killing power for several weeks, and in most localities it is very cheap. It will spray better if thinned with one part of kerosene to four parts of crude oil.—Farmers' Bulletin 801.

B. T. Bisbee, of Plains, Kansas, says: "Milo is the surest of all crops for Kansas and is particularly desirable for poultry. My wife and daughters are very successful with chickens and other poultry and always raise more than we can use. Our poultry also is remarkably free from disease."

H. H. McLellan, of Nebraska, writes that he thinks something must be wrong somewhere with scratch feed selling for five cents a hundred and fries bringing only seventeen cents a pound. Buyers tell him the market is flooded. He thinks that if this is so there will be a flood of buyers next winter and they will have to pay high for stock.

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These cattle will be sold in very ordinary condition. With a little care you can make them better. I am not advertising much. This is your chance to buy a bargain. Not long since I sold the cow, "Kloli," to a farmer for \$100. He gave her a chance to make good and sold her at a farm sale to the Agricultural College at Manhattan, Kansas, for \$465, where she is still making good. At this sale you can buy her half sister and others equally as good. I am selling because we are short of feed and help. It is no trouble to buy feed, but it is out of the question to get the right kind of help. I have taken great pains to buy the best blood—among this offering you will find a number of choice young things at your own price, tracing to such bulls as "Stockwell," who sold for \$11,500, and Blue Bell's Blue Boy, half brother to Noble of Oaklands, who sold for \$15,000. Many of these cows are bred to "Royal Misset's Torono," Hood Farm breeding.

Catalog sent on request. Time given on approved paper.

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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 Pigs Now Ready to Ship, Pairs and Trios No Kin.

H. L. FAULKNER - BOX D - JAMESPORT, MISSOURI

ELKMORE FARM POLAND CHINAS

HOME OF THE GRAND CHAMPION, CALDWELL'S BIG BOB.

See show herd at the Topeka Free Fair. Annual bred sow sale February 19, 1918.

FRED B. CALDWELL, HOWARD, KAN.

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. E. GREENE, Peabody, Kan.

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

OLD ORIGINAL SPOTTED POLANDS

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

Langford's Spotted Polands.—Last call for early spring boars. Yours for good hogs.—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

HEREFORD CATTLE.

HEREFORD CATTLE

Want to Sell Forty Cows and Heifers. Cows have calves at foot and are rebred. Twenty-five bulls of breeding age, real herd headers. Send for my annual sale catalog, October 6, 1917.

J. O. Southard, Comiskey, Kan.

FARM AND HERD NEWS NOTES

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

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CLAIM SALE DATES.

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

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

Jersey Cattle.
Aug. 22—S. S. Smith, Clay Center, Kansas, sas. B. C. Settles, Sales Manager.

Herefords.
Oct. 6—J. O. Southard, Comiskey, Kansas.

Poland Chinas.
Oct. 4—Dr. J. H. Lomax, St. Joseph, Mo. Sale at farm near Leona, Kansas.

Oct. 5—U. S. Byrne, Saxton, Mo.
Oct. 8—Arthur Anderson, Clyde, Kansas.
Oct. 16—H. B. Walter & Son, Effingham, Kansas.

Oct. 17—Walter B. Brown, Perry, Kansas.
Oct. 24—Fred G. Laptad, Lawrence, Kansas.
Nov. 6—Ross & Vincent, Sterling, Kansas.

Feb. 13—Deming Ranch, Oswego, Kansas.
Feb. 19—Fred B. Caldwell, Howard, Kansas.
Feb. 20—Bert E. Hodson, Ashland, Kansas.

Sale at Wichita.
Feb. 20—B. E. Hodson, Ashland, Kansas; sale at Wichita.

Feb. 21—E. J. Erhart & Son, Ness City, Kansas; sale at Hutchinson.

Feb. 22—F. Olivier & Son, Danville, Kansas.

Feb. 23—V. O. Johnson, Aulne, 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.

Durocs.

Oct. 20—O. W. Long, Maitland, Missouri.
Oct. 24—Fred G. Laptad, Lawrence, Kansas.
Oct. 25—Geo. M. Klusmire, Holton, Kansas.

O. I. C. Hogs.

Sept. 4—Milton Pennock, Delphos, Kansas.

George M. Klusmire, of Holton, Kansas, has announced October 25 for a fall sale of his famous Durocs. Mr. Klusmire is a constructive breeder of the large smooth Duroc hog. The herd boar used at the head of the herd is A Critic by Critic B and out of a Tataravalla sow by old Tattarax. The herd is a well bred lot. Such sows as Beauty Maid 4th by Model Top, two sows by the largest Duroc boar ever in Iowa; four sows by K's Golden Rule and two granddaughters of old Buddy K. 4th, twenty spring boars and thirty spring gilts will go in this sale.

J. O. Southard, of Comiskey, Kansas, has announced October 6 for his annual fall sale to be held at the farm. One hundred breeding cows and heifers will be sold and twenty-five choice bulls that are real herd headers. Mr. Southard now owns one of the largest and best bred herds of Hereford cattle in the West, and has bought the tops from the best herds in the corn belt. The sale offering promises to be one of the best that will go through a sale ring this year, both from breeding and as to blood lines. The herd bulls used in the herd are "The Mighty" Monarch, King Farmer, Overton, Fairfax, Repeater 91st, Repeater 66th, Bright Domino, and Dispatcher.

O. W. Long, of Maitland, Missouri, is claiming October 20 for a fall sale of Durocs. The herd boar, Favorite, a splendid yearling, is making good as a sire. The herd sows are richly bred in the B. & C.'s Col, blood lines and all have raised good litters. On October 20 Mr. Long will offer twenty-five choice spring boars and twenty-five spring gilts, the pick of seventy head.

Virgil Hunt, of Ravenwood, Missouri, is making a great success with big-type Polands and Shorthorn cattle. At the head of the Poland China herd is the big two-year-old boar, A Wonder Again by old A Wonder, out of a Giantess sow by Pawnee Prince by Bell Prince. Bell Prince was one of the best boars in North Missouri. The brood sows in Mr. Hunt's herd this year all farrowed from seven to thirteen pigs and a feature of the herd at this time is a lot of choice spring boars that promise to make real herd headers.

W. T. McBride, of Parker, Kansas, owner of one of the good herds of Durocs, reports his herd doing well. A feature of his herd at this time is the choice lot of spring pigs, including some outstanding young boars.

B. R. Anderson, of McPherson, Kansas, owner of one of the good herds of Duroc hogs, recently purchased from the herd of Waltmeyer & Son, of Iowa, the herd boar, Great Wonder I Am. This boar was sired by the champion, Great Wonder, and his dam is a daughter of the champion, Grand Model. He will be shown at the leading fairs and also at the National Swine Show. He will be mated to the splendid lot of sows and gilts that will go in Mr. Anderson's February sow sale.

The Deming Ranch, of Oswego, Kansas, is the home of one of the largest herds of Poland China hogs in Kansas. They now have 600 head of registered Polands in the herd. This year they raised 300 spring pigs and have 250 acres of very fine corn that insures feed for their big herd. Alfalfa,

PUBLIC SALE SEPTEMBER 4
Fifty registered O. I. C. hogs. Sixteen male and female Red Polled cattle. Six and one-half miles east, one mile north of Delphos, Kansas. MILTON PENNOCK.

HOLSTEIN CATTLE.

CLYDE GIROD, At the Farm

HOLSTEIN FRIESIAN FARM, TOWANDA, KANSAS

BREEDERS OF PURE-BRED HOLSTEINS

We offer special attractions in choice young bulls, ready for service, both 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

MAURER'S HOLSTEIN FARM

Why not buy pure-breds when you can get them at near-grade prices? WE HAVE THEM from three-months-old heifer and bull calves to matured cows, all with exceptionally high class breeding. Finely marked and good individuals. Also grade cows and heifers. Write for description and prices or, still better, call at farm and inspect them. T. R. MAURER & COMPANY - EMPORIA, 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.

DUROC JERSEYS.

DUROC HERD FOR SALE

Choice herd Duroc Jersey hogs, best blood lines. All ages, including sows bred for September farrow. Will sell worth the money if taken at once. Write for description and breeding. W. C. WHITNEY - AGRA, KANSAS

15 Duroc Spring Boars

Sired by Illustrator O'Rion 3d and Fancy Victor and out of my best herd sows. They are real herd prospects, selected from 91 pigs raised. Write today if you want a good spring boar.

John W. Potford

Route 1 Saffordville, Kansas

DEMING RANCH QUALITY

BIG-TYPE POLAND CHINA HOGS.

See our show herd at Topeka Free Fair, Kansas State Fair at Hutchinson, and Oklahoma City. Fifty spring boars for sale. Six hundred head in herd to select from.

H. O. Sheldon, Herd Manager
OSWEGO, KANSAS.

Buy a Boar of Anderson

Durocs from the Royal Herd Farm have always made good. Yearling gilts bred to the great boar, "Proud Chief," for September farrow. Write me your wants or visit my herd.

B. R. ANDERSON, Rte. 7, McPherson, Kan.

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

McBRIDE'S DUROCS

Four-months-old boars for sale. Good ones. Tops, \$25, if taken at once.

W. T. McBRIDE - PARKER, KANSAS

CHERRY CHIEF DUROCS

I still have a choice lot of March and April pigs, priced to sell. All immuned. Plenty of length, size and bone.

A. S. GRABLE, JR. - DEARBORN, MO.

LONE TREE DUROC FARM

Herd Boar Graduate Prince by Graduate Col. Sows, Ohio Chief, Tattarax, 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.

corn and Poland Chinas have proved to be a profitable combination on this ranch. The herd boars in use in this herd are among the best now in service both in breeding and individuality. They have a very fine held of sows of the real brood sow type. This year their sows averaged seven and one-half pigs to the litter raised and weaned.

B. F. Erwin, of Fairfax, Missouri, owner of one of Missouri's good flocks of Shropshire sheep, reports his flock doing fine. Mr. Erwin's flock is drawn upon heavily for breeding stock and many of the good flocks in Missouri and other states were started with foundation stock from Mr. Erwin's flock. A feature at this time is the choice lot of breeding stock, including a choice lot of rams. Mr. Erwin also makes a specialty of breeding high-class jacks and at this time has a number of very fine young jacks on his farm.

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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, both from tested and untested dams, at prices within reason. Let us furnish you a bull and improve your herd.

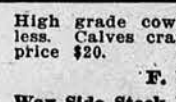
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HOLSTEIN CALVES

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.

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. E. BENTLEY, MANHATTAN, KANSAS

50 HOLSTEIN HEIFERS

We offer for sale fifty of the best high grade Holstein heifers in Wisconsin. All bred to a 29-pound bull whose dam is sister to the sire of the world's champion cow, Duchess Skylark Ormsby. Also a few choice fall cows.

CLOVER VALLEY HOLSTEIN FARM
Whitewater - - - - - Wisconsin

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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.

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

Butter Bred Holsteins

Buy your next bull calf from a herd that won the butter test over all breeds.

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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.

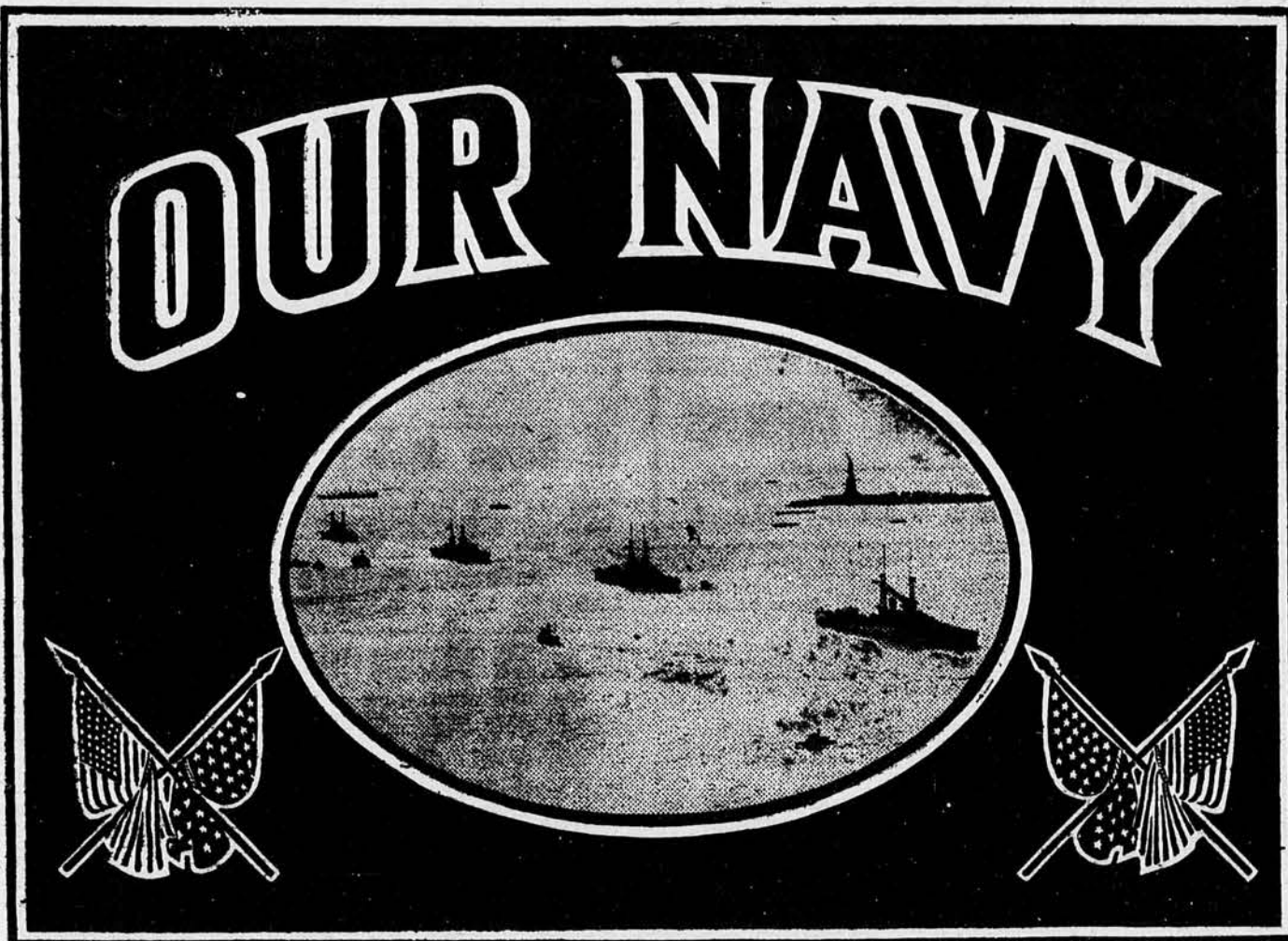
High Grade Holstein Calves

12 heifers 15-16 pure bred, 4 to 6 weeks old, beautifully marked, \$20 each. Safe delivery and satisfaction guaranteed.

FERNWOOD FARMS, WAUWATOSA, WISCONSIN

Nicely marked high-grade Holstein calves, price reasonable. O.

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